



GrupoMéxico

COMMITTED TO A  
**SUSTAINABLE  
FUTURE**

SUSTAINABLE DEVELOPMENT REPORT 2019

# ABOUT THIS REPORT

**GRI: 102-46, 102-48, 102-49, 102-50, 102-51, 102-52, 102-53, 102-54, 102-56**

We offer our fourteenth Sustainable Development Report affirming our commitment to transparency and disclosure. This report was prepared according to the Global Reporting Initiative (GRI) Standards “Core” option and the “Mining and Metals” sector supplement. Each material topic includes the management approach (GRI indicator 103), followed by the GRI indicators applicable, for each of our three divisions: Mining, Transportation and Infrastructure.

This report applies the principles for preparing reports in terms of defining the content and quality in reference to Inclusion of Stakeholders, Sustainability Context, Materiality, Completeness, Accuracy, Balance, Clarity, Comparability, Reliability and Timeliness, as defined by the GRI. We have also applied the Principles of Inclusivity, Materiality and Responsiveness defined by AccountAbility AA1000APS (2008).

This report covers the 2019 social, environmental and economic performance of our three divisions in the four countries where we operate: Mexico, Peru, Spain and the United States.

Throughout the report, we have indicated the mechanisms for measures and calculations, and as applicable, restated data from the previous Sustainable Development Report.

Giving continuity to the practice from previous years, and following the mandate given by the Board of Directors, the report has been verified independently, according to the scope set in the independent assurance report.

For more information, please contact [desarrollo.sustentable@mm.gmexico.com](mailto:desarrollo.sustentable@mm.gmexico.com)



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## LETTER FROM THE PRESIDENT

102-14, 102-15

At Grupo México, our commitment to sustainable development is the cornerstone of our business model. This commitment is integral to our operations and is part of everything we do throughout our value chain. I'm proud to present our fourteenth Sustainable Development Report, based on the Global Reporting Initiative methodology. This report reflects our commitment to communicate transparently the way we manage issues material to the company, including climate change, human rights and relations with our neighbor communities. This year, we are reporting progress on our corporate targets for 2022, which contribute to the United Nations Sustainable Development Goals.

The health and safety of our collaborators is fundamental to our business, which is why year after year, we double our efforts in safety and we are continuously working to optimize preventive measures to eliminate unsafe conditions and actions, until we achieve our goal of zero accidents. To reach this goal, we are strengthening the risk management processes at all our business units by aligning our health and safety and environmental management systems to ISO 45001 and ISO 14001.

In addition to the wellbeing of our collaborators, we are committed to adopting a long-term vision of protecting the environment. We are supporting actions that help ensure that water needs of all users in the catchments where our operations are located are satisfied, both in terms of volume and quality. To achieve this, we are taking steps to reduce our use of fresh water and we are investing in infrastructure and new technologies to improve our responsible use of this vital resource. Thanks to the optimization of our processes in Mexico and Peru, we reduced our consumption of fresh water by 6.6% in 2019, while copper production increased by 11.7%.

Climate change is one of the greatest challenges of our time and Grupo México is committed to support national and international emission reduction efforts to contain global warming. Today, 18.6% of our electricity comes from renewable sources and our goal is to reach 25% by 2022. To achieve this, we have invested more than US\$250 million to develop a new 168MW wind farm in Nuevo Leon, Mexico, and we are looking at the possibility of developing other projects in the regions where we operate.

Regarding mine waste, we are implementing a new standard to ensure the tailings dams at all our mine operations are safe. Today, 85% of our tailings are confined in dams built with a “downstream” method, which is internationally recognized as being the safest way to manage tailings. We favor this method for the new dams we build, which also helps recover more water for our operations.

We believe, and our track record shows, that sustainable operations create long-lasting value that improve people’s lives. For this reason, we are working hard to increase the wellbeing of the communities near our operations. Our community development model is based on co-responsibility and open dialog with the community. We connect with our communities through our 17 *Casa Grande* community centers in Mexico and 15 *Casa Nuestra* community centers in Peru. We conduct participative diagnostics, incorporating the perspectives and needs of the local residents to develop social management plans that are customized to each location.

We invested in 362 community programs in 2019, focused on education, culture and sports; as well as in productive projects selected through community committees. In 2019, we rolled out our Community Grievance Mechanism in the Mining Division in Mexico and Peru. This provides communities an additional direct communication channel with Grupo Mexico, enabling us to receive concerns and respond more efficiently. We are currently working on providing this service to our operations in the United States and our Infrastructure Division in Mexico.

Our Transportation Division continued to invest in signaling for level crossings in 2019 to make our operations even safer. Thanks to this program, accidents at level crossings decreased 23% this year, compared with 2018. Additionally, Dr. Vagon, the Health Train, operated by the Grupo México Foundation, celebrated its fifth anniversary in 2019 and has delivered medical services to more than 360,000 people in 22 Mexican States since 2014.

At the time of writing this report, every industry in the world is facing the enormous challenge of dealing with the crisis that results from COVID-19. Although this report focuses on our activities in 2019, it is necessary to explain how we tackle the challenges we are currently facing, considering these might have long-reaching consequences for our business. When the World Health Organization declared the pandemic, a working group was formed at the highest level of our organization for the 3 divisions of the company to define Grupo Mexico’s response Protocols to COVID-19, and supervise their implementation. These Protocols include governmental directives and international recommendations to preserve the health of our collaborators and their families, while ensuring the sustainability of our operations.

We acknowledge the company’s responsibility to accompany the efforts undertaken by the authorities to look after the population, and Grupo Mexico has helped satisfy the needs of the communities where we operate. We have donated more than US\$26 million in supplies, including 147 mechanical ventilators and 501 non-invasive ventilators, over 80,000 food baskets for vulnerable groups, and more than 450,000 medical supplies, as well as adding to the number of healthcare workers by hiring additional qualified personnel.

We are proud of the enthusiasm and perseverance that our collaborators have shown in the face of this unparalleled crisis. Their efforts motivate us to reaffirm our commitment to work closely with both the authorities and our stakeholders to generate shared value through sustainable operations.

Regards



**Germán Larrea Mota Velasco**

CHAIRMAN OF THE BOARD



**ABOUT GRUPO  
MÉXICO**

## ABOUT GRUPO MÉXICO

### Introduction to Grupo México

102-1, 102-2, 102-4, 102-5, 102-6, 102-16

Grupo México S.A.B. de C.V. is a diversified company with presence in Mexico, the United States, Peru and Spain. We have extensive experience in the mining sector as one of the largest copper producers in the world and the top producer in Mexico. We are also present in the transportation sector, operating the largest multimodal freight railroad in Mexico, with growing operations in the United States. We offer specialized infrastructure services and also engineering, power generation, on and offshore exploration and drilling, as well as leasing and operating oil rigs. We have expanded our capacities to hold a concession to operate highways.

All our operations are conducted under a common approach of cost effectiveness and productivity, striving to maintain a financial balance making us a sustainable, strategic and reliable company for our business partners, generating shared value for our stakeholders.

Our Development with Purpose model is built around three pillars: Grow, Promote and Protect. Through these pillars, we nurture the growth of the company, job stability, the health and safety of our collaborators, strengthen the communities with which we interact, and care for the environment. These pillars are the guiding principles for all our Divisions.

We have been trading on the Mexican Stock Exchange since 1996 as Grupo México (GMEXICOB) and the Transportation Division has been trading since 2017 as GMéxico Transportes (GMXT). Our subsidiary Southern Copper Corporation (SCC) trades on the New York Stock Exchange and the Lima Stock Exchange.



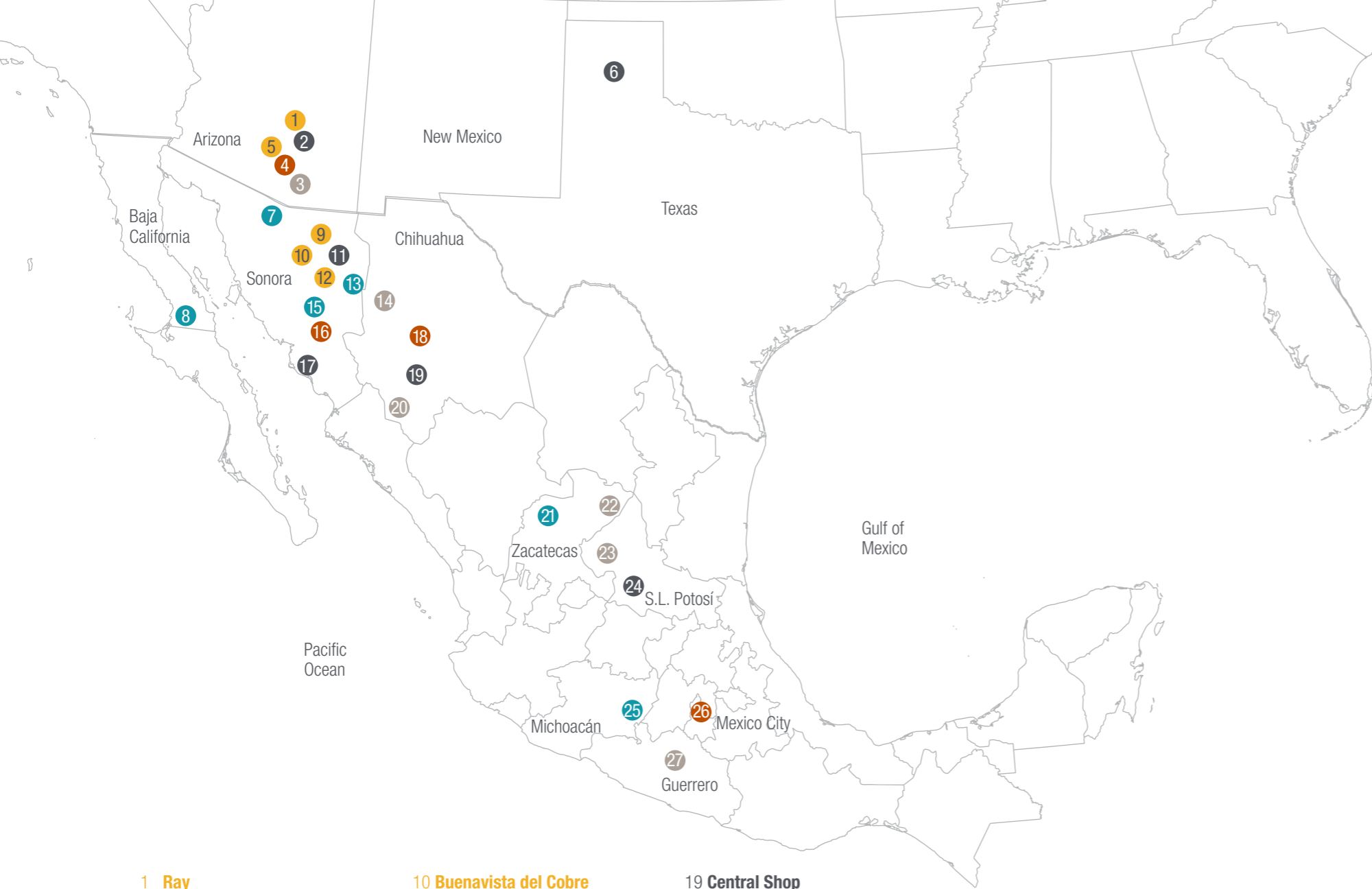
Our people are our most important asset. To protect them, we promote job stability and care for their health and safety.

### Our Presence

102-4

Grupo México is a global enterprise, which over time has grown and diversified to consolidate as a stable and sustainable company.

Our portfolio of products and services is delivered by three divisions: Mining Division, Transportation Division and Infrastructure Division. Our presence in Mexico, Peru, the United States, Argentina, Chile, Ecuador and Spain is shown following:



## Mining Division - Grupo México

Geographic Location



- |  |  |   |
|--|--|---|
| 1 <b>Ray</b><br>Mine & plant                       | 10 <b>Buenavista del Cobre</b><br>Mine & plant           | 19 <b>Central Shop</b><br>Plant                             |
| 2 <b>Hayden</b><br>Plant                           | 11 <b>Processing Complex</b><br>Plant                    | 20 <b>Santa Barbara</b><br>Polymetallic underground mine    |
| 3 <b>Mission</b><br>Mine                           | 12 <b>La Caridad</b><br>Mine & plant; processing complex | 21 <b>Chalchihuites</b><br>Future project; underground mine |
| 4 <b>Tucson Offices</b><br>Corporate Offices       | 13 <b>Pilares</b><br>Future copper project               | 22 <b>San Martin</b><br>Polymetallic underground mine       |
| 5 <b>Silver Bell</b><br>Mine & plant               | 14 <b>Santa Eulalia</b><br>Polymetallic mine             | 23 <b>Charcas</b><br>Polymetallic underground mine          |
| 6 <b>Amarillo</b><br>Plant                         | 15 <b>Buenavista Zinc</b><br>Mine; future project        | 24 <b>Zinc Electrolyte Refinery</b><br>Plant                |
| 7 <b>El Pilar</b><br>Future copper project & plant | 16 <b>Hermosillo Offices</b><br>Corporate offices        | 25 <b>Angangueo</b><br>Future project; underground mine     |
| 8 <b>El Arco</b><br>Future project                 | 17 <b>Guaymas Terminal</b><br>Plant                      | 26 <b>Mexico Offices</b><br>Corporate Headquarters          |
| 9 <b>Lime Plant</b><br>Mine & plant                | 18 <b>Chihuahua Offices</b><br>Corporate offices         | 27 <b>Taxco</b><br>Polymetallic underground mine            |

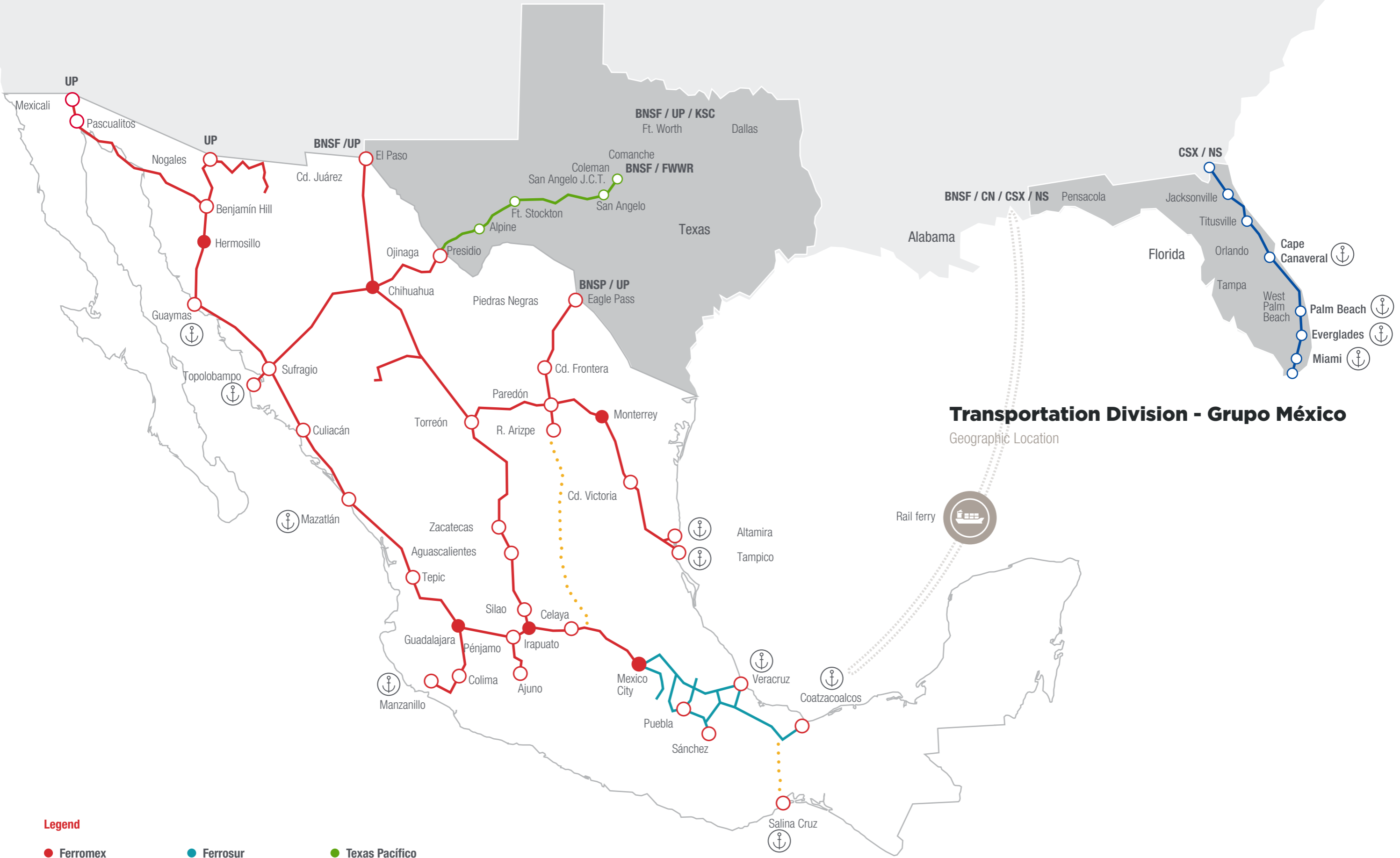
- |   |
|---|
| 1 <b>Chaucha</b><br>Future copper project         |
| 2 <b>Tantahuatay</b><br>Gold mine                 |
| 3 <b>Lima Offices</b><br>Corporate offices        |
| 4 <b>Los Chancas</b><br>Future copper project     |
| 5 <b>Tia Maria</b><br>Future SX/EW copper project |
| 6 <b>Cuajone</b><br>Copper mine                   |
| 7 <b>Toquepala</b><br>SX/EW copper mine & plant   |
| 8 <b>Ilo</b><br>Processing plant                  |
| 9 <b>Catanave</b><br>Future project               |

### Legend

- Mines
- Plants
- Offices
- Mine + Plant
- Future mining projects

\*SX/EW (Copper cathode electrowinning plant)





### Transportation Division - Grupo México

Geographic Location



- Legend**
- Ferromex
  - Ferrosur
  - Texas Pacific
  - Florida East Coast
  - ⋯ Trackage rights

# Infrastructure Division - Grupo México

Geographic Location



## Legend

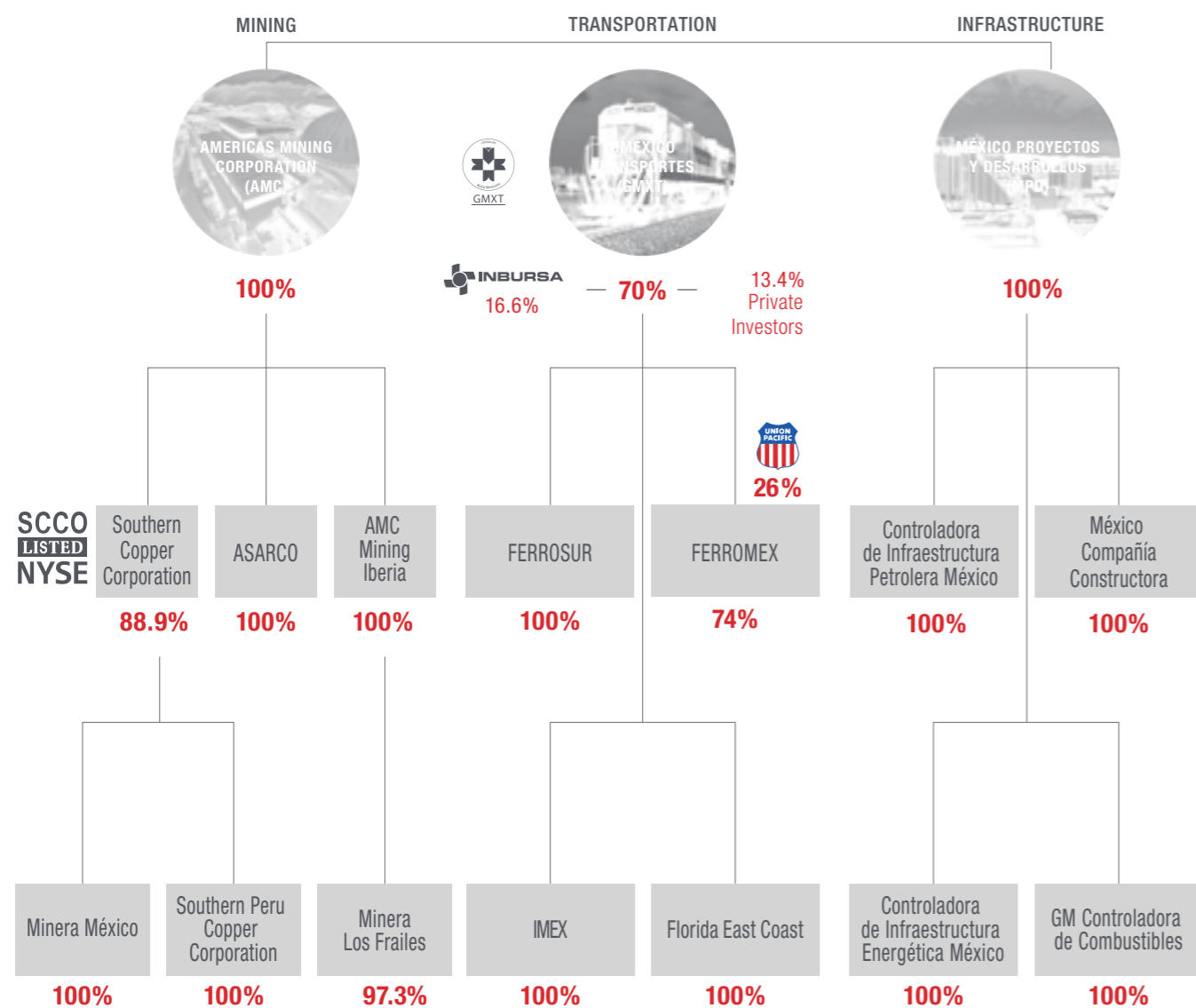
-  Energy
-  Highway
-  Drilling
-  Fuel Terminal

## Corporate Structure

102-7, 102-8, 102-45



GRUPO MÉXICO HAS BEEN TRADING SINCE 1966



Mining Division	Transportation Division	Infrastructure Division
Americas Mining Corporation (AMC)	GMéxico Transportes, S.A.B. de C.V. (GMXT)	México Proyectos y Desarrollos, S.A. de C.V. (MPD)
<ul style="list-style-type: none"> <li>Southern Copper Corporation                             <ul style="list-style-type: none"> <li>Minera México</li> <li>Southern Perú</li> </ul> </li> <li>ASARCO</li> <li>Minera Los Frailes</li> </ul>	<ul style="list-style-type: none"> <li>Ferromex</li> <li>Ferrosur</li> <li>Intermodal México</li> <li>Florida East Coast Holding Corp.</li> <li>Texas Pacífico</li> <li>Raven Inc.</li> </ul>	<ul style="list-style-type: none"> <li>México Compañía Constructora</li> <li>Perforadora México</li> <li>Grupo México Servicios de Ingeniería</li> <li>Grupo México Energía</li> <li>Grupo México Autopistas</li> <li>Grupo México Combustibles</li> </ul>

Number of employees		
16,666	11,065	2,744

Operations		
- 15 underground and open pit mines	- 11,146 km rail network	- 2 modular rigs
- 52 smelters, refineries and other plants	- 880 locomotives and 26,319 railcars, of different types	- 5 jack-up rigs
- 11 explorations	- 13 ports	- La Caridad 500 MW Combined Cycle Power Plant, with 1 hydrocarbon transfer terminal
- Mexico, Peru, USA, Argentina, Chile, Ecuador and Spain	- 5 crossings on the Mexico-USA border	- El Retiro wind farm (74 MW)
		- High-specification highways (construction, operation and maintenance)
		- 1 fuel shipping terminal

Net Sales		
US\$7.966 billion	US\$2.473 billion	US\$579 million



# **SUSTAINABLE DEVELOPMENT STRATEGY**



We strive to be good neighbors, improving the quality of life of our people and our communities.

## DEVELOPMENT WITH PURPOSE

*A vision without a strategy remains an illusion.*

Lee Bolman

For Grupo México, strategy means the ability to analyze the present and project into the future to develop appropriate responses to the challenges of today and tomorrow, striving to maximize benefits for the company, our stakeholders and society, without losing sight of caring for the planet.

In an increasingly complex world characterized by urgent social, environmental and economic challenges, we believe it is essential to have an overall vision of long-term sustainability to align the company's strategy with these challenges. Our response, which we call *Development with Purpose*, is built on three pillars around which we design our sustainability strategy:

### Development with Purpose

#### Grow

We invest to generate opportunities and prosperity, making us an engine for positive change for the economies in which we operate.

- We ensure our continuity, adapting to the needs of our surroundings.
- We engage the community in growth, promoting partnerships with suppliers, working with local suppliers as much as possible.
- We operate with transparency, thanks to timely communication with our stakeholders.
- Our structure is process and result-oriented.

#### Promote

We strive to be good neighbors, improving the quality of life of our people and that of our communities.

- Our teams are made up of capable, motivated people, in keeping with our values, putting the dignity of the individual at the center of all that we do.
- We create safe work environments for our collaborators and we operate to the highest standards of occupational health and safety.
- We are continually building a work environment where respect and non-discrimination are the norm.
- We are working to contribute to the common good of our neighbor communities, fostering collaboration and dialog.

#### Protect

We care for and preserve the environment. To build shared value, we know that leaving positive footprints environmentally is the basis for sustainable progress.

- We mitigate our negative impacts to contribute to national and international environmental goals.
- We have established an ongoing improvement process that ensures efficiency and responsible usage of raw materials, energy and water.
- We manage our operations focusing on reducing waste and controlling emissions.
- We respect and protect the biodiversity in the environments where we operate.

We have an **overall vision of long-term sustainability** to align the **company's strategy** with the new challenges we face.

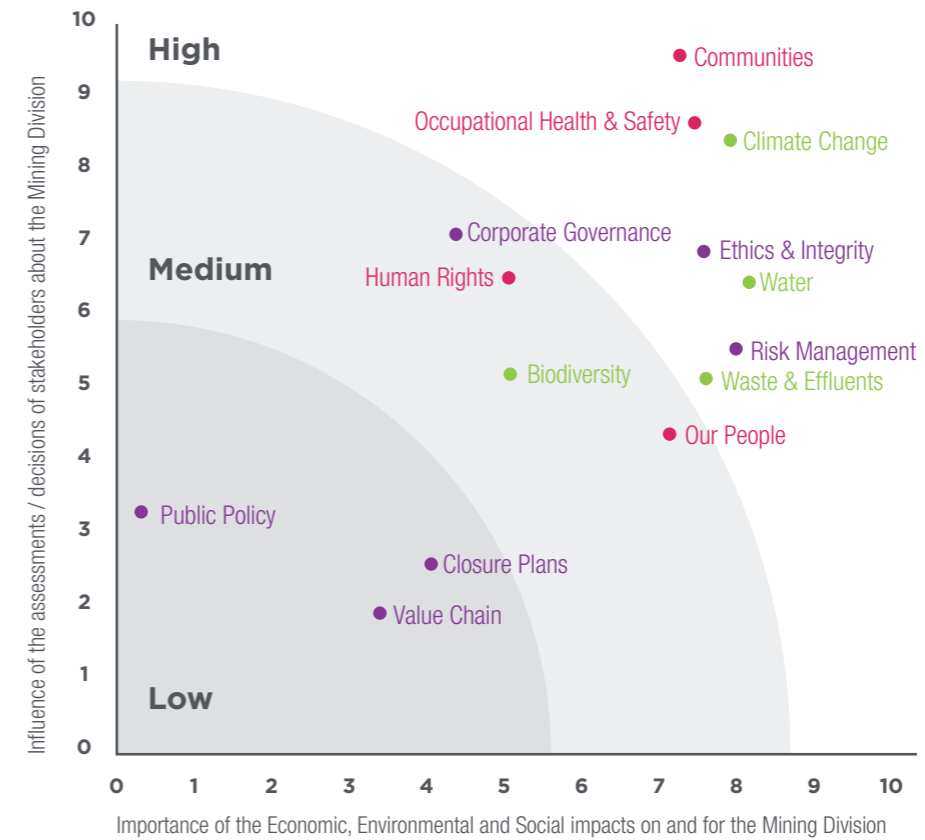
## MATERIAL TOPICS FOR THE THREE DIVISIONS OF GRUPO MÉXICO

Our sustainable development strategy draws from a process of identifying, confirming and prioritizing the material topics for the three divisions of Grupo México. We align our understanding of materiality with the GRI definition: *those topics that reflect the significant economic, environmental and social aspects of the company's operations, or that would influence the opinion or decisions of stakeholders.* We also considered the concept of materiality provided by the SASB (Sustainability Accounting Standards Board), where material topics in sustainability include environmental, social, economic and institutional risks having potential economic effects on an organization.

We analyzed the principal trends in the industries where we operate in 2019 (mining, transportation, engineering and construction, energy and oil drilling) and the priorities of all our stakeholders. We also studied material topics for the industry from 2018 to identify changes in the last year in the potential impacts from our operations. We then evaluated the different impacts of the topics identified, including the opinions of our stakeholders to prioritize the topics on a scale of importance: low, medium and high materiality. Company senior management then confirmed these priorities.

## Mining Division

2019 Mining Division Materiality Matrix



**Material topics grouped together:**

- |   |   |  |  |
|---|---|--|--|
| <p><b>Ethics &amp; Integrity:</b></p> <ul style="list-style-type: none"> <li>- Unfair Competition</li> <li>- Anti-corruption</li> </ul> | <p><b>Climate Change:</b></p> <ul style="list-style-type: none"> <li>- Emissions</li> <li>- Energy</li> </ul> | <p><b>Communities</b></p> <ul style="list-style-type: none"> <li>- Local Communities</li> <li>- Indigenous Rights</li> </ul> | <p><b>Our People:</b></p> <ul style="list-style-type: none"> <li>- Diversity, Inclusivity and Non-Discrimination</li> <li>- Development of Human Capital</li> <li>- Labor Practices</li> <li>- Recruitment and Retaining Talent</li> </ul> |
|---|---|--|--|

The Mining Division identified 20 topic areas, which were prioritized according to the results of the materiality process, based on two variables: *The influence of the assessments / decisions of our stakeholders about the Grupo México Mining Division and The importance of the economic, environmental and social impacts in and for the Grupo México Mining Division.*

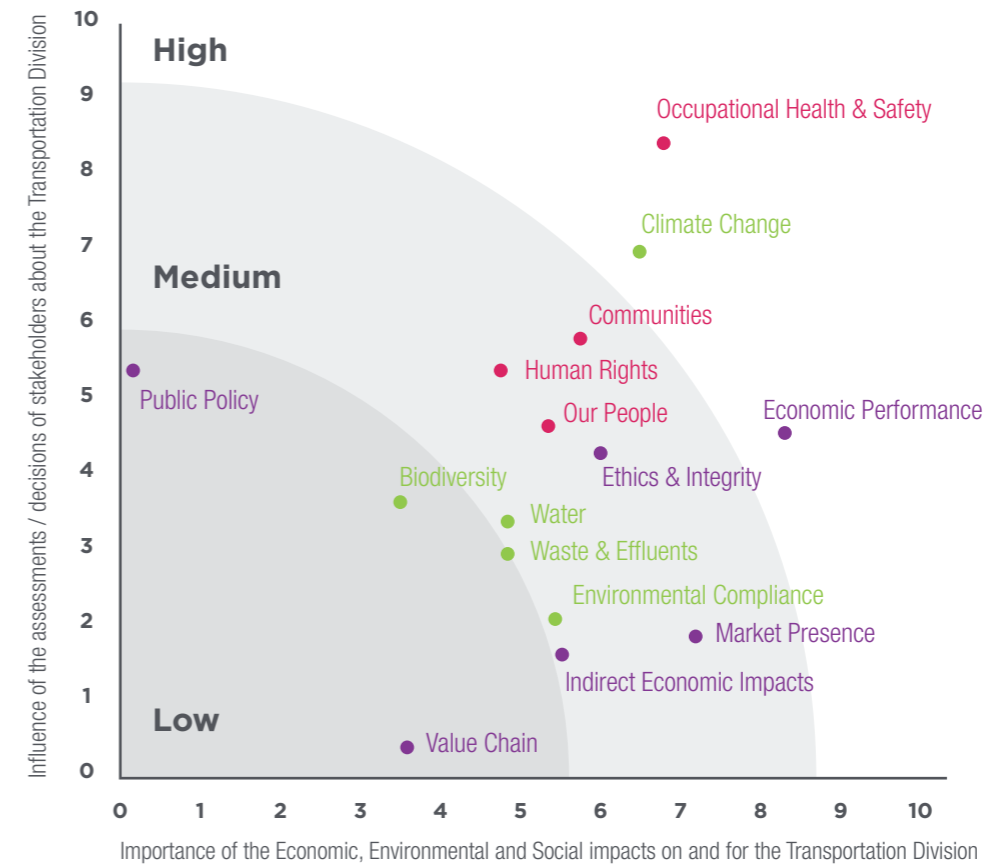
The most relevant topics for the **Mining Division** are: (i) **Occupational Health and Safety**; (ii) **Local Communities**; (iii) **Climate Change**; (iv) **Water**, and (v) **Business Ethics and Integrity**.

Some of these topic areas were grouped together based on commonalities. For example, in the **economic** aspect the topic “Ethics and Integrity” includes the sub-topics: (i) Unfair Competition and (ii) Anti-corruption. In the **environmental** aspect, the topic “Climate Change” includes the subtopics: (i) Energy and (ii) Emissions. In the **social** aspect, the topic “Communities” includes: (i) Local Communities and (ii) Indigenous Rights, and also the topic “Our People” covers the subtopics: (i) Diversity, Inclusivity and Non-Discrimination, (ii) Development of Human Capital, (iii) Labor Practices, and (iv) Recruitment and Retaining Talent.

As noted in the chart above, the topics of the greatest importance for the Grupo México Mining Division in the **social** aspect are Occupational Health and Safety, our relationships with the communities at the sites where we operate, respecting Human Rights and Our People. In turn, due to the nature of our sectors, Grupo México finds that the topics of greatest relevance in the **environmental** aspect are Climate Change, Water, Waste and Effluents, and Biodiversity. Meanwhile, the priority topics in the **economic** aspect are Corporate Governance, Risk Management and Ethics and Integrity.

## Transportation Division

2019 Transportation Division Materiality Matrix



**Material topics grouped together:**

- |                                |                        |                     |   |
|--------------------------------|------------------------|---------------------|---|
| <b>Ethics &amp; Integrity:</b> | <b>Climate Change:</b> | <b>Communities</b>  | <b>Our People:</b>                              |
| - Unfair Competition           | - Emissions            | - Local Communities | - Diversity, Inclusivity and Non-Discrimination |
| - Anti-corruption              | - Energy               | - Indigenous Rights | - Development of Human Capital                  |
|                                |                        |                     | - Labor Practices                               |
|                                |                        |                     | - Recruitment and Retaining Talent              |

Our vision is to continue to offer the best option for transporting freight overland with simple processes, reliable infrastructure and talent. To achieve this, we know that our strategy must focus on actions in the present to gain market in the future and continue to generate value. At GMXT, we have developed a business model that is based on sustainability to deliver the best service and maximize the productivity of our work.

We updated our materiality analysis in 2019 to determine which topic areas in sustainability represent a risk to the company and to manage and improve our performance. This exercise has also served to better report our activities to our stakeholders. The results of this analysis help us to gauge some of the indicators we had been monitoring and to define new lines of action to improve processes and create programs that ensure the continuity of our business in the short, medium and long term.

This materiality analysis involved reviewing literature and case studies on sustainability, consultations with in-house and outside stakeholders, and we analyzed public information and the media concerning our company, our sector and the places where we work. This work helped to build a materiality matrix, which prioritized the risks associated with sustainability and the material topics for GMXT. It was also helpful to firmly align our business strategy with the United Nations Sustainable Development Goals, to have a greater positive impact with our actions to contribute to the 2030 Agenda goals.

The Transportation Division identified 21 topic areas that were prioritized through our materiality process. The results show that the topics of greatest importance are: Occupational Health and Safety, the communities through which the train passes, meaning, where there is urban-railroad co-existence, human rights and our people in the **social** aspect. In the **environmental** aspect, of note is the topic of climate change and eco-efficiency in our consumption of fuel and energy. In the **economic** aspect, the topics of Ethics and Integrity and Economic Development.

This materiality analysis helped us to more effectively direct our goals in regards to sustainability and to integrate this topic into our strategy and business model. Grupo México Transportes is committed to reducing our consumption of energy from polluting sources, promoting the goals of the Paris Agreement for Mexico from the transportation sector perspective, fostering the creation of sustainable value chains, and investing in innovative and quality infrastructure to support the growth of resilient economies in response to the challenges and needs of society and the markets in the 21st century.

GMXT is a company whose positive impacts on the economy, society and the environment are considerable. This is why we are building a sustainability strategy where we achieve our business goals while contributing to the sustainable development goals. Our materiality analysis identified that Grupo México Transportation has the capacity to directly influence four of the UN's 17 Sustainable Development Goals. Additionally, we have identified that the freight transportation industry, and in particular the railroad industry, has an essential role to play in promoting gender equality between men and women, and driving gender diversity in the industry.

Transporting freight by railroad produces about a third of the pollution that cargo trucks produce and globally, the railroads account for just 2% of the energy consumed by the transportation sector. Also, the railroad is responsible for a mere 0.3% of the direct emissions from transportation worldwide. In this regard, railroad freight transportation is a key sector to lead the *decarbonization* of value chains throughout the global economy, as well as connecting markets and reducing the flow of goods by trucks on highways, making the roads safer for people. The work of GMXT is fundamental to developing a resilient infrastructure in Mexico and the United States, contributing to the fight against climate change.

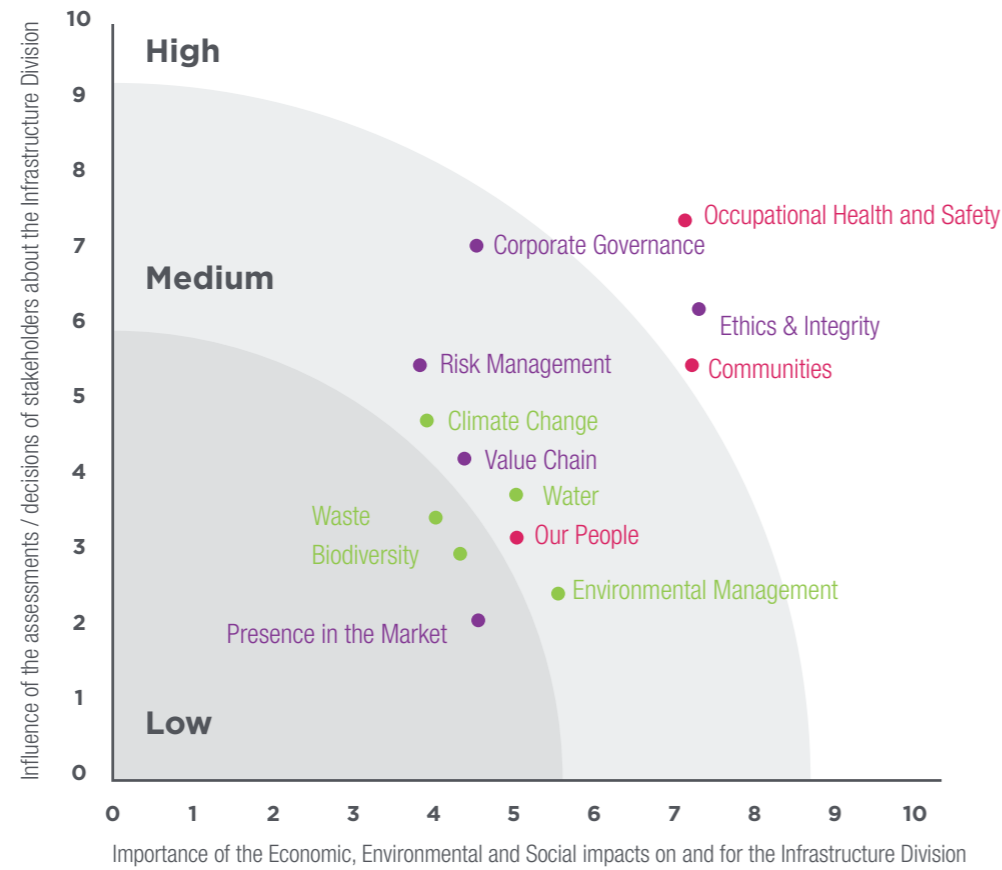
As part of our strategy and business model, we take into consideration the challenges of the 21st century to ensure the continuity of our business. The global mega trends in population growth and increased standard of living present an opportunity for our business. More people and better standards of living mean connecting markets and transporting more goods around the world. However, moving these goods and growing the economy does not come without a price. In this regard, GMXT will grow our participation in the freight transportation market in Mexico and the United States while reducing our carbon footprint, increasing the efficiency of our operations and reducing accidents.

At the end of 2019, we developed a program for 2020 where many of our projects and investments involve lowering our diesel consumption and reducing accidents. Today, we are developing strategies and projects that affirm sustainability as a guiding principle in our day-to-day. We are planning to develop more specific corporate sustainability goals for GMXT based on the specific nature of this Grupo México business.



# Infrastructure Division

2019 Infrastructure Division Materiality Matrix



**Material topics grouped together:**

- |   |   |  |  |
|---|---|--|--|
| <p><b>Ethics &amp; Integrity:</b></p> <ul style="list-style-type: none"> <li>- Unfair Competition</li> <li>- Anti-corruption</li> </ul> | <p><b>Climate Change:</b></p> <ul style="list-style-type: none"> <li>- Emissions</li> <li>- Energy</li> </ul> | <p><b>Communities</b></p> <ul style="list-style-type: none"> <li>- Local Communities</li> <li>- Indigenous Rights</li> </ul> | <p><b>Our People:</b></p> <ul style="list-style-type: none"> <li>- Diversity, Inclusivity and Non-Discrimination</li> <li>- Development of Human Capital</li> <li>- Labor Practices</li> <li>- Recruitment and Retaining Talent</li> </ul> |
|---|---|--|--|

The Infrastructure Division identified 20 topic areas, prioritized through the materiality analysis process. The results show that the topics of greatest importance are: Occupational Health and Safety, Communities and Our People in terms of the **social** aspect; Climate Change and Water for the **environmental**, and Corporate Governance and Ethics and Integrity for the **economic** aspect.

Our strategy speaks to our ability to **analyze the present and project for the future to develop appropriate responses to the challenges of today and tomorrow.**

## Cross-cutting topics

The robust process used to develop the materiality matrices offers two major advantages. On the one hand, we could compare the results for the three Grupo México divisions and identify the topics of importance they have in common, identifying that the following material topics are priorities for Grupo México as a whole: Occupational Health and Safety, Human Rights, the Communities near our operations and Our People for the social aspect; Climate Change in environmental, and Ethics and Business in the economic aspect. On the other hand, this process ensures that Grupo México can keep our strategy focused on the real priority topics for both the organization and our stakeholders, while identifying issues arising that would need to be integrated into our management.

The execution of the organizational strategy in sustainable development is based on the results of the materiality matrices, and ensures we have the information, resources and management structure necessary to guarantee our management of the ESG risks for the organization and our stakeholders. Below, we describe how these risks are managed in the organization.

## MANAGEMENT OF RISKS ASSOCIATED WITH THE ENVIRONMENT, HEALTH, SAFETY AND THE COMMUNITY

103-1

Identifying and anticipating the risks associated with our operations is part of our commitment to our employees, our neighbor communities and the environment. At Grupo México, we are developing and improving policies and processes to anticipate the risks associated with sustainability. Given the challenge of sustainability and risk management in a changing context, one of the tools most used worldwide are management systems, tools to define policies, goals of the organization and to unify procedures to align the company with our defined goals. At Grupo México, some of the systems in place are:

- ISO 45001- Worker health and safety
- ISO 14001- Comprehensive environmental management systems

These management systems are compatible, therefore their implementation and development can be led by multidisciplinary teams that constantly feed back into the system.

## Organizational management

103-2

We are developing and implementing management systems in all our business units, focused primarily on environmental management and workplace health and safety. With this, we will unify the risk management processes at our operations to align us with international standards and be a more competitive company.

This process of change includes defining strategies, policies and procedures that will facilitate implementation at all our operations. We start with a diagnostic and audit process that helps us to visualize the greatest hazards, assess their impacts and, above all, take preventive actions to prevent these from materializing and affecting the environment or the community.

Our risk management optimizes the capacity of the organization to identify, assess, manage and communicate the relevant risks associated with all our activities and business, to:

- Achieve the strategic goals and objectives of the company in terms of sustainability.
- Increase the visibility of the relevant business risks to make informed decisions.
- Strengthen the results, guarantee stability and maintain the reputation of the company.
- Have uniform risk management processes at all our affiliate companies and business units.
- Consolidate a culture of risks aimed at prevention and leadership.

Under this strategy, Grupo México strives to adopt best practices in sustainability risks, gathering the best elements for decision-making and permeating the culture of prevention throughout the organization, starting with senior management.

Our goals seek to align our organizational performance with the **aspirations and expectations of society.**

### Policies

The Corporate Risk Management Policy outlines the basic principles and general framework for the control and management of the operational and sustainability risks that Grupo México and our subsidiary companies face, risks associated with the environment, social, industrial safety and occupational health.

This policy defines the models for our Risk Management and states that each Grupo México division and business unit will have uniform processes to properly manage risks according to the policy, which includes the following processes:

- **Risk identification.** The identification of new risks, updating our risk registry and assigning roles to manage the risks.
- **Risk assessment.** The initial assessment of the risk and its controls.
- **Risk mitigation.** The implementation of risk containment barriers and mechanisms, and also the identification of performance indicators and their effectiveness.
- **Risk reporting.** The monitoring of risk performance indicators, and reporting incidents and investigations.



Safety is everyone's responsibility. Keeping people safe is a priority, while promoting a participative culture of prevention according to the strictest international criteria at all our operations.

### Evaluation mechanisms

103-3

The evaluation process for our risk management currently starts at each business unit with regular internal and independent audits. These audits help us to correct any anomalies found, taking into account the opinions of our personnel and using a process of ongoing improvement, to make any necessary changes to our processes to ensure the effectiveness of our management systems.

## SUSTAINABLE DEVELOPMENT CORPORATE GOALS

The core focal point of the Grupo México sustainable development strategy is to align our corporate performance with international best practices, based on the standards and guides developed by the different reference initiatives in the relevant Environmental, Social and Governance (ESG) aspects for the organization. One common requirement among these is to communicate effectively and with transparency the performance, management and goals of the organization in these aspects. This report shows the commitment of Grupo México to continually improve the quality of our reports and to meet the expectations of our stakeholders. This section outlines the sustainable development corporate goals of Grupo México.




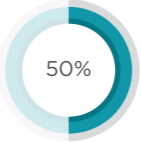
Our goals seek to raise our organizational performance to meet the aspirations and expectations of society, reflected through different regulatory frameworks and international agreements, which are summarized in the 2030 global agenda and the United Nations Sustainable Development Goals (SDG). The 2022 corporate goals were set in 2018, providing a base year to report the progress achieved in 2019, described following.

Goal	Status	Comments
<b>Occupational health and safety</b>  		
Zero fatalities.	0%	We were unable to meet this goal because of the unfortunate fatalities that occurred in 2019. Grupo México is working to strengthen our prevention and training programs to achieve the goal of zero fatal accidents (p.231).
Reduce the injury frequency rate of our employees and contractors by 25% in the Mining Division and 15% in the Transportation Division.	50%	The incident rate increased 14.8% in the Mining Division in 2019, while the Transportation Division reduced its incident rate by 21% (p.231).
Implement a Behavior-Based Safety System in 75% of the Mining Division business units.	47%	By the end of 2019, 47% of our mines had a behavior-based system in place (p.231).
Obtain the ISO 45001 certification in all of the Mining Division business units.	42%	All our mines are working on implementation plans to receive ISO 45001 certification, reporting an overall estimated progress of 42% (p.231).
Provide preventive health programs focused on chronic-degenerative diseases to 70% of the mining operations workforce exposed to non-occupational health risks.	100%	83% of personnel participated in preventive programs in 2019, accomplishing the goal (p.231).
Implement a comprehensive traffic management plan in all open-pit mine facilities.	56%	The implementation of traffic management plans at all open pit mines is in progress, reporting an estimated overall progress of 56% (p.231).
Install traffic equipment for 25 level crossings to reduce accidents in urban and rural areas.	100%	We signaled 25 level crossings in 2019 and continue our work to make our railroad the safest in Mexico. We have set ourselves the <b>new goal of signaling 40 more crossings by 2022</b> (p.261).

Human Rights		
Develop programs to promote the respect of human rights in our company and with our main suppliers.	70%	Grupo México published our General Human Rights Policy in 2019. We also began a review of the internal policies and procedures related to protecting human rights to identify and address gaps, and to design initiatives that will be implemented in 2020 (p.300 & 290).
Institutionalize the process for identifying and responding to the indigenous communities near our operations.	60%	We completed a process in 2019 to map the indigenous communities near the business units of the Mining Division in Mexico. We continue to work towards the goal of drafting a Policy on Respect for the Rights of Indigenous Communities and Peoples for release in 2020, the mechanism for which will be the Indigenous Communities and Peoples Action Protocol (p.389).
Implement a grievance mechanism for external stakeholders located near the Mining Division operations.	88%	The Community Care System is currently in operation at 14 Mining Division communities in Mexico and at 4 in Peru. We are expecting to launch this system in the United States and in the Infrastructure Division in 2020 (p.354).
Community Development		
Invest at least 2.5% of net profits in projects that contributing to the United Nations Sustainable Development Goals.	100%	Approximately 3.0% of Grupo México's net earnings were allocated to investments in corporate social responsibility, contributing to the SDG, in our neighbor communities. Adding to this our social, environmental and workplace health and safety projects, this figure rises to over 20% (p.353).
Ensure that all company-sponsored schools achieve higher academic results than their respective national averages.	100%	All Grupo México-sponsored schools in Mexico and Peru reported academic results above the national average in 2019, while 60% were above the regional average (p. 354).
Implement an institutional program that supports the development of small and medium local suppliers.	20%	Our Entrepreneurship School opened in Mexico in 2019, with 80 suppliers from the Sonora River region participating in this program. In Peru, we are planning to train 300 suppliers in 2020. Both programs offer opportunities for engagement with the company's supply chain (p. 355).
Environmental management		
Obtain the ISO 14001 certification in all Mining Division business units.	21%	4 business units are certified (21% of the total). All other units are in the process of developing an implementation plan.

Water		
Update water baseline assessments in all Mining Division business units.	50%	Our operations are currently preparing gap analyses, based on the International Council on Mining and Metals (ICMM) Water Management Guide to determine the next actions to take (p.86).
Systematically monitor water resources at catchment level in mining operations located in high water-stressed areas.	50%	Fourteen of our mine operations in Mexico, the United States and Peru <sup>2</sup> are situated in high water stress areas, according to the Aqueduct Water Risk Atlas. We have an ongoing program in place to record and monitor water at our operations and the basins involved. Our strategies will be adjusted and aligned based on the gap analyses to ensure the sustainable management of the water basins on which we depend (p.87).
Climate Change		
Update our climate-related risks and opportunities assessment.	50%	The corporate emissions from the Grupo México value chain (GHG scope 3) were calculated for the first time to identify new risks and opportunities related to our carbon footprint. The next step is to revise the risk analysis and opportunities to transition our corporate strategy for climate change (p.134).
Increase the use of renewable electricity in the Mining Division to 10%.	100%	18.6% of the electricity consumed by Grupo Mexico in 2019 came from renewable sources, which is well over the 10% target established initially (p.132).  Our new target for 2022 is to reach 25%.
Reduce the intensity of greenhouse gas emissions of the Mining Division by 5%.	100%	The intensity of emissions was significantly reduced in 2019 compared to 2018, allowing us to achieve our 2022 target ahead of time (p.129).  Our new target for 2022 is to reduce the 2019 emissions intensity by 5% (2.54 tCO2 per ton of copper equivalent produced).
Biodiversity		
Update biodiversity baseline assessments in all Mining Division business units.	50%	Gap analyses are being prepared at all our operations, based on International Council on Mining and Metals Good Practices in Biodiversity Guide to determine the next actions to take (p.174).
Guarantee the production of 5 million trees per year, and join efforts with reforestation organizations.	100%	Our company nurseries produced more than 5.8 million trees in 2019. During the year, we reforested 207.35 hectares at our operations (mainly in Sonora and Coahuila), and 2,200 hectares in 25 Mexican states, under the Grupo México Foundation <i>Mexicanos Sembrando</i> program (p.174).

<sup>2</sup> According to the World Resources Institute (Aqueduct Project, 2020), most of the mine operations of Grupo México are situated in high water stress regions, which does not necessarily mean that our operations use water drawn from overexploited aquifers or under special restriction. Of note is that the availability of water in specific aquifers is determined through studies approved by the corresponding authority on which water rights or permits are issued.

Mining Residues (tailings) 		
Implement a policy and standards for a safe management of mining residues.		Our <i>Tailings Systems Policy</i> was published in 2019, which outlines the need for all company tailings systems to have an Operation, Maintenance and Supervision Manual as well as a closure plan (p.144 & 145).
Update the safety assessment of all operating mining residues deposits.		A specialized independent firm reviewed the general safety conditions at all our active tailings dams in Mexico and Peru, and at 50% of the active deposits in the United States in 2019 (p.145).
Standardize the Operation, Maintenance, and Monitoring Manuals for all mining residues deposits.		There are standardized manuals in place for the mine waste deposits at our operations in Peru and the United States (p. 144).

The Grupo México corporate goals show the organization's commitment to ongoing improvement in our practices and performance in sustainable development. We are pleased to report that some of the 2022 goals have already been achieved in 2019, which motivates us to be more ambitious with some of these goals, such as in the case of renewable energies. Also, there has been significant progress made in most areas, although regrettably, the results in workplace safety are far from meeting our goal and show the need to double our efforts in this area to reach the high expectations of the organization and our stakeholders.

## Recognitions and initiatives

Sustainable Development Indexes: With a view to adopting and fostering best practices, we have undergone exhaustive evaluation processes conducted by independent experts in sustainability. In particular, we participated in the *SAM Corporate Sustainability Assessment*<sup>1</sup>, which looks at financially relevant social, environmental, economic and corporate governance factors. As a result, since October 2017, we have been included in the ***Dow Jones MILA Sustainability Indexes***, a regional indicator that recognizes the performance of companies in the Pacific Alliance member countries with the highest sustainability ratings.

Additionally, Grupo México has been included in two other sustainability indexes: the ***FTSE4Good Emerging Latinoamérica***, and ***FTSE4Good BIVA***, which recognize companies with strong performance in sustainable development (in the emerging market regions of Latin America and Mexico, in this case). Lastly, for the eighth year in a row, Grupo México was included in the Mexican Stock Exchange IPC Sustainability Index, a financial indicator that recognizes companies for their strategic actions and best practices in social, environmental and corporate governance aspects.

Grupo México was a pioneer in voluntary measuring and reporting greenhouse gas emissions. We have been participating in the GEI Mexico voluntary emissions reporting program since 2005. Also, for the fourth year, Grupo México submitted its consolidated emissions inventory to the ***CDP (Carbon Disclosure Project)***, an international benchmark that gathers and publishes relevant information on corporate environmental impact.

Lastly, it is important to note that Grupo México also participates in the ***CHRB (Corporate Human Rights Benchmark)***, an initiative that evaluates the human rights performance of mining companies worldwide each year.

<sup>1</sup> Now led by Standard & Poor's Global

## STAKEHOLDER ENGAGEMENT

102-40, 102-42, 102-43, 102-44

Grupo México has operations in Mexico, the United States, Peru and Spain, and given the nature of the business and industries in which we work, our relationships with stockholders, investors, collaborators, trade unions, communities, customers, suppliers, commercial partners, sector and industrial chambers, governments and the media must be transparent and lay the groundwork for accountability and co-responsibility. Our business strategy is based on social, environmental and economic sustainability. To achieve our business and growth goals, we take into account the needs, circumstances and concerns of our stakeholders.

All our divisions are continually mapping our stakeholders according to the industries in which we work to build an accurate understanding of the players with which we interact and foster positive relationships delivering benefits for our stakeholders and our company. We carried out materiality studies in 2015 and 2016, which were extended to 2017 and 2018, while in 2019, we updated the 2015 study to define and reset the management priorities in terms of sustainability for the company and to analyze the actual risks that could have a material impact on our company. All the materiality studies have involved direct and indirect approaches by Grupo México with outside stakeholders and are based on conversations about management approach. This aids us in contextualizing the risk and enhancing our materiality analyses with feedback from experts in different topics and sectors.

Grupo México is committed to listening to our stakeholders for which we offer different channels of communication, including our annual report, our sustainable development report, the stockholders meeting, quarterly calls for investors, community committees, forums, interviews, social media presence, community development centers, the community care service (CCS), press releases and newsletters. We use these means regularly to communicate efficiently with our stakeholders. Grupo México listens to concerns and offers spaces for dialog on issues related to the company, and our channels of communication are always open.

### In terms of our relationships with political organizations and political causes:

- Grupo México does not contribute to political parties or to political organizations in any of the countries where we operate.

- Our contributions to industrial and commercial chambers are limited to membership dues. The company does not seek to influence any campaign agenda.
- Our communications and relationships focus only on promoting our business goals, social development and caring for the environment, as well as the interests of the industrial sectors where we work.
- We support the OECD Recommendations on Principles of Transparency, Integrity and Lobbying for the governments in the countries where we operate to promote and guarantee accountability, transparency and free and competitive access to the market.
- We take into account the general principles of the OECD Directives for Multinational Companies in our relationships with stakeholders. In particular, following general principle number 15, Grupo México refrains from unduly participating in local political activities in the regions where we operate.

At Grupo México, we operate according to our Mission, Vision and Values, which consolidate and reaffirm how we relate to our stakeholders from the perspective of creating value in the short, medium and long term, committed to corporate sustainability as a guarantee of this contribution. We endeavor to ensure our actions are based on integrity and respect, contributing to the development of everyone involved in the team and the communities where we work, the satisfaction of our customers, the backing of our stockholders and the strengthening of our suppliers and contractors. In strict adherence of the law, we strive to go further with company guidelines that transform risks into opportunities for improvement, based on prevention.

At Grupo México, we are committed to **listening to our stakeholders.**

All Grupo México divisions have defined our stakeholders as all groups, institutions or individuals that have an interest in the economic, environmental and social performance of the company. We also include in this definition, any entity or individual who could be impacted by our activities. Company senior management has defined guidelines to identify our stakeholders and determine the best means of communication with them. Grupo México has an Investor Relations department, which classifies our stakeholders through selection mechanisms. Additionally, the company has an Institutional Relations and Communications department which, with the work of different specialists, determines the priority stakeholders for the company and defines how the company should communicate outside its walls. In parallel, the Mining Division's Community Development department has specific protocols regarding building relationships with stakeholders in the communities where we operate, known as the Community Care Service. It is important to note that communication with inhouse stakeholders, like our collaborators and the trade unions with which we work, is determined by the Human Resources departments in each division.

The stakeholders with which the company has active and ongoing communication are presented following:

Communication channels or mechanisms	Stakeholders									
	Customers	Employees	Unions	Investors	Suppliers	Contractors	Communities	Opinion leaders Civil society Media	IFinancial institutions Government agencies Academic institutions Ratings agencies	
Website	●	●	●	●	●	●	●	●	●	
E-Ferromex; E-Ferrosur	●									
Intranet		●								
Sustainable Development Report	●	●	●	●	●	●	●	●	●	
Annual Financial Report				●				●	●	
Quarterly Financial Reports				●				●	●	
News bulletins							●	●	●	
In-house company newsletters		●	●							
Publication of relevant events				●					●	
Press releases								●		
Stockholders meetings				●						
In-person meetings			●				●		●	
CBA review			●							
Diagnostic studies							●			
Interviews							●			
Surveys	●						●			
Workplace climate survey		●								
Telephone consultations	●			●	●	●		●	●	
Ethics reporting line	●	●		●	●	●				
Guided tours							●	●	●	
Site visits							●			
Community committees							●			
Awareness days							●			
Community development centers							●			
Community care service							●			

- Ongoing
- Yearly
- Once or twice a year
- Quarterly
- Bimonthly
- As arises



Our commitment to sustainable development extends beyond our operations. We encourage organizations and initiatives that foster development with purpose through economic growth and respect for the environment. A list of the associations we are members of and the initiatives we work with and support follows:

Associations and initiatives with which we collaborate	
<b>Mining Division</b>	International Copper Association
	International Molybdenum Association
	Arizona Mining Association
	North American Metals Council
	Society for Mining Metallurgy and Exploration
	Tucson Metropolitan Chamber of Commerce
	Cámara Minera de México
	Sociedad Minera de México
	Asociación de Mineros de Sonora
	Comisión de Estudios del Sector Privado para el desarrollo sustentable
	Sociedad nacional de Minería, Petróleo y Energía del Perú
	Cámara de Comercio de Lima
	Asociación de Exportadores
	Confederación intersectorial de Empresas Privadas
	Sociedad de Comercio Exterior del Perú
	Instituto de Ingenieros de Minas del Perú

Associations and initiatives with which we collaborate	
<b>Transportation Division</b>	Asociación Mexicana de Ferrocarriles
	Association of American Railroads
	Asociación de Proveedores de Productos Agropecuarios
	Asociación Mexicana del Transporte Intermodal
	Consejo Nacional Agropecuario
	Rail Transportation and Engineering Center
	Asociación Nacional de la Industria Química
	Asociación Nacional del Plástico
	The Chlorine Institute
<b>Infrastructure Division</b>	Consejo Coordinador Empresarial
	Cámara Mexicana de la Industria de la Construcción
	Confederación Patronal Mexicana
	Asociación Mexicana de Servicios Petroleros
	Asociación Mexicana de Empresas de Hidrocarburos
	Asociación Mexicana de Energía eólica
	Asociación Mexicana de Energía Eléctrica
	Asociación Mexicana de Ingeniería de vías Terrestres

Our sustainability approach has helped us to generate and distribute value for our different stakeholders responsibly. In this regard, of note in 2019 is that Grupo México Transportes was recognized as a Socially Responsible Company for the sixth year in a row, as was the Infrastructure Division, which received this recognition for the fourth time, given by the Centro Mexicano para la Filantropía (CEMEFI).

## GENERATING SHARED VALUE

At Grupo México, we want the economic benefits of our operations to reach our employees, our communities, suppliers and the governments of the countries where we operate. We promote productive activities designed to economically drive all our stakeholders.

We consider the value and economic wellbeing derived from our operations to calculate the Economic Value Distributed.

The economic spillover generated in 2019 created a shared value that positively impacted our stakeholders, who received US\$8.668 billion, representing a 3.5% increase over last year.



We promote productive activities designed to economically drive all our stakeholders.

### Economic value generated & distributed

US\$ Millions	2017	2018	2019
<b>Economic Value Generated (EVG)</b>			
Sales	9,978	10,495	11,021
<b>Economic Value Distributed (EVD)</b>			
Operating Costs <sup>2</sup>	3,911	4,249	5,063
Salaries, Wages and Benefits	1,103	1,247	996
Financial Institutions and Stockholders	1,125	1,845	1,132
Taxes <sup>3</sup>	1,648	975	1,437
Investments in Community Development	61	62	40
<b>Total EVD</b>	<b>7,848</b>	<b>8,378</b>	<b>8,668</b>

2. Does not include the salaries, wages and benefits for operational personnel.

3. Grupo México pays taxes according to the local tax laws in the countries where we operate, and also has an obligation of transparency on being a publicly traded company.

### Investments in Sustainable Development\*

US\$ Millions	2017	2018	2019
Investments and Spending in Environmental Actions	326	264	251
Investments and Spending in Health and Safety	130	116	158
Investments and Spending in Community Development	61	62	40
<b>Total</b>	<b>517</b>	<b>442</b>	<b>449</b>

\* Does not include investments made by the Grupo México Foundation.

## SUPPLY CHAIN

204-1

Offering opportunities for economic growth in each region where Grupo México operates, the Mining Division worked with 5,671 suppliers in 2019, 89% of which were local suppliers in Mexico, 83% in Peru, and 97% in the United States.

### 2019 Mining Division Suppliers\*

Operating Region	Local	Foreign	Total
Mexico	2,163	256	2,419
Peru	1,617	324	1,941
USA	1,270	41	1,311
<b>Total</b>	<b>5,050</b>	<b>621</b>	<b>5,671</b>

\* A local supplier is a resident of the country where our operations are located.

In terms of the supply chain, GMXT contributes to the development of the commercial segments with which we interact to strengthen the value chain and support our customers to be more competitive. GMXT seeks to boost the economy of the regions where we operate and in this regard, we worked with 5,384 suppliers in 2019. In Mexico, we worked with 94% local suppliers, while in the United States, 100% of our suppliers were local. Our supply chain is complex, but we have identified strategic suppliers for the operation of our locomotives and infrastructure, such as suppliers of diesel, sleepers, track and civil construction works. These suppliers represent 76% of our purchasing.

**94% of our suppliers are local**, reaffirming our commitment to creating jobs and driving economic development in the regions where we operate.

### GMXT Suppliers, 2019\*

Operating Region	Local	Foreign
Mexico	1,670	95
USA	3,619	-
<b>Total</b>	<b>5,289</b>	<b>95</b>

\* A local supplier is a resident in the country where our operations are located.

Regarding the supply chain, the Grupo México Infrastructure Division contributes to the development of the commercial segments with which we interact, strengthening the value chain and making our customers more competitive.

Grupo México Infrastructure seeks to strengthen the economy of the regions where we operate and, in this regard, we worked with 2,245 suppliers in 2019, 96% of which are local and the other 4% are foreign suppliers, while 92.6% of our purchasing was with local suppliers and 7.4% with foreign suppliers in the US and Norway.

Our supply chain is complex, because of our various lines of business, identifying strategic suppliers of natural gas, diesel and gasoline, equipment parts, anticorrosive maintenance and wind farm maintenance. These suppliers account for 62.58% of our purchasing.

Operations	Local	Foreign
Mexico	2,151	94
<b>Total</b>	<b>2,245</b>	



# MATERIAL TOPICS

Processing  
Plants in  
Cananea,  
Sonora, Mexico.



## CORPORATE GOVERNANCE

The Grupo México corporate governance structure seeks to ensure that our decision-making generates benefit and assurance for our investors, as well as the sustainability of the company, all in adherence of the principles of transparency and accountability. Our ultimate goal is to generate shared value with our stakeholders and honor the trust our investors have placed in us.

### Governance Bodies

102-18, 102-22, 102-24, 102-26

**Board of Directors.** This is the governing body of Grupo México. Its members are elected annually and are responsible for setting the corporate strategy and evaluating the fulfillment of this strategy. The functions of the board include ensuring the efficient use of resources and available assets, monitoring the social and environmental performance of the company, and overseeing risk management.

There were 15 members of the Grupo México Board of Directors in 2019, appointed by the General Stockholders Meeting, nine of which were independents<sup>4</sup>. Of note is that the stockholders meeting verified the independence of these board members as stipulated by the Mexican Securities Market Law. The Chairman of the Board also holds the position of Executive President of Grupo México.

The governance structure is defined according to the guidelines established in the Grupo México Bylaws, approved by the Stockholders Meeting, which approves the management reports presented by the Board of Directors. The holders of Grupo México shares are represented at the stockholders meeting. The stockholders meeting appoints the members of the Grupo México S.A.B. de C.V. Board of Directors and verifies the independence of these members as required by the Mexican Securities Market Law.

The independent board members are selected for their experience, expertise and professional reputation, considering also that they can fulfill their duties without conflict of interest and without being influenced by personal, equity or economic interests.

4. The requirements for a board member to be considered independent comply with Article 26 of the Mexican Securities Market Law, referenced in the Grupo México Bylaws, which are publicly available.

The Ordinary General Stockholders Meeting designates or appoints the individual members of the Board of Directors by a majority vote. Board members serve for one year and may be reelected or their appointment may be revoked at any time. The Stockholders Meeting also designates the members of the Executive Committee and the Audit and Corporate Practices Committee, based on their experience and no conflicts of interest, and sets the per session remunerations for board members.

The Grupo México Board of Directors met four times in 2019, with 100% attendance by board members. During these sessions, information was presented on the results of the company's financial and operational indicators, the status of the risk management, and the performance of the principal sustainability indicators.

**Committees.** The Grupo México corporate governance structure has two committees: the Executive Committee and the Audit and Corporate Practices Committee. Three board members, two of which are independents, sit on the Executive Committee, which conducts a more frequent supervision and prepares the quarterly reports presented to the Board. The chairman of the Board of Directors also presides over the Executive Committee.

The Audit and Corporate Practices Committee is made up of independent board members. This committee monitors the internal control and audit systems, conducting regular reviews, and is also responsible for due diligence on the implementation of and compliance with the ethical guidelines laid out in the Code of Ethics. This Committee also sets the fixed salary policies for senior management, and the variable portion of these salaries that is performance-based.



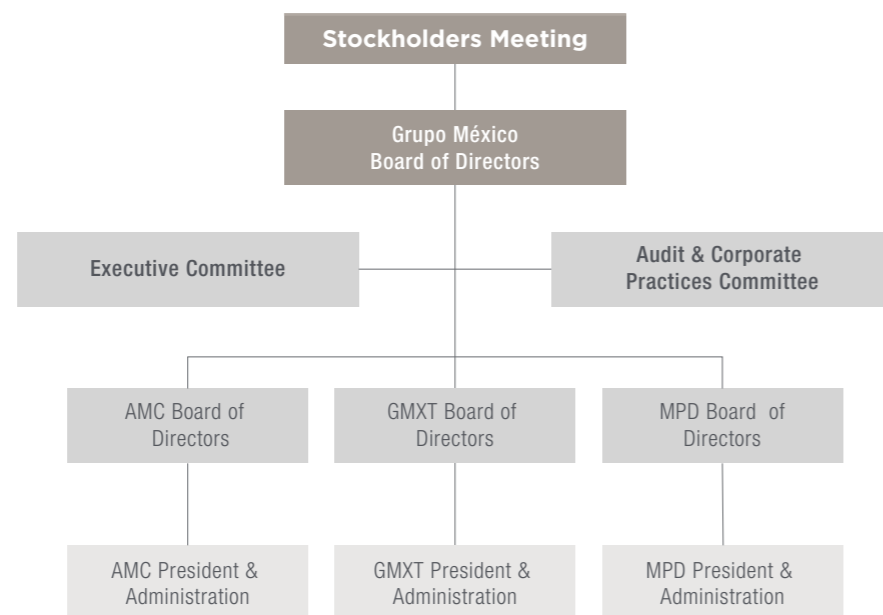
Concentrator II under construction at Buenavista del Cobre, Sonora, Mexico.

Each subsidiary has its own management committees, addressing different evaluation indicators and responding to stakeholder concerns raised by the executives responsible for these relations. The committees and board members participate in a self-assessment process once a year.

It is important to note that our principal subsidiaries have their own Boards of Directors, which inform the Grupo México S.A.B. de C.V. Board. Their responsibilities include monitoring and assessing the social and environmental performance, the management of which falls to collaborators in the operational areas at the subsidiary level and also teams created for this purpose.

Our corporate governance structure ensures our **decision-making generates benefit and assurance for our investors.**

**Internal control.** Grupo México has an internal control system to ensure our corporate governance is managed appropriately, according to the guidelines of the Board of Directors. The internal control system is reviewed and measured regularly in terms of budgetary, economic, financial, equity, regulatory and management aspects. There is also an ongoing improvement process that strives to make the operational, financial and administrative processes more efficient, strengthening the transparent disclosure of information to investors.



## Sustainable development management in the organization

102-19, 102-20, 102-29, 102-30, 102-31, 102-32, 102-33

Our ESG management and performance involves the different divisions, functions and levels of the organization, ensuring the relevant risks and opportunities are addressed comprehensively. These aspects are supervised by the Board of Directors, which delegates its authority in this regard to the Sustainable Development Committee and the Corporate Sustainable Development Department, which together define the organization's strategic vision for sustainable development.

## Mining Division

The **Corporate Sustainable Development Department (CSDD)** focuses primarily on the mining activities with the greatest ESG scope and impact. They work in close collaboration with the other divisions and functions of the company to ensure the vision and goals for sustainable development are fully aligned with the strategic priorities of Grupo México. There is a team of ESG specialists at each division that facilitates the development and execution of the corporate strategies focusing on the common material topics between the three divisions (for example, climate change, human rights, etc.). They also develop, execute and strengthen strategies focused on the material topics that are specific to each division, according to the nature and particulars of their activities (for example, mine waste, urban-railroad co-existence, etc.).

The Health and Safety, Community Development and Environmental Affairs departments report to the Corporate Vice-President of Sustainable Development<sup>5</sup>. Under their leadership, the CSDD concentrates most of its resources and efforts on achieving two main goals: prevent and efficiently mitigate the ESG risks the organization faces at both the operational and corporate levels, and guarantee ongoing improvement in organizational management and performance in terms of ESG, in keeping with the expectations of our stakeholders and international best practices. To ensure these goals are met, review meetings are held quarterly with regional managers and directors for each of the three departments and in all the regions where the Mining Division operates.

Some of the activities headed by the CSDD include participation in the ESG assessment processes with rating agencies, the design and execution of strategies to address gaps, defining goals and policies, the implementation of management systems for operational and institutional improvement, communicating our ESG performance, linkage with our stakeholders in this area, and building strategic partnerships, etc.

5. A more detailed description of the specific roles and responsibilities of each department is provided in the chapters on Occupational Health and Safety, Community Development and the Environment.

The Corporate Vice-President of Sustainable Development reports our performance to the **Sustainable Development Committee** and to the Executive Vice-President of Grupo México, who also chairs the committee together with the Executive President of the Mining Division. All the corporate vice-presidents of the Mining Division sit on this committee, as well as the directors of occupational health and safety, environmental affairs and community development in the division. Executives from the other divisions and outside consultants are occasionally invited, when the committee's agenda so merits.

The Sustainable Development Committee meets every quarter and monitors the organizational ESG performance, recommends adjustments and offers expert opinions to strengthen the organizational and operational management in this area, and to ratify the strategic actions to be implemented. All agreements are recorded in minutes, which are provided to the committee members, and the CSDD follows up.

Similarly, an executive report is sent to the Chairman of the **Grupo México and Mining Division Boards of Directors** after each session, noting the highlights from the period and the strategic recommendations submitted to the Boards of Directors. It should be noted that the Chairman of the Board of Directors and other senior management in the organization are aware and continually informed about the principal initiatives, achievements, news and recommendations in ESG. Lastly, the Board of Directors confirms the strategic direction of the organization in terms of sustainable development, the corporate goals, the investments required to achieve these goals, and reports for outside stakeholders.

The **Sustainable Development Committee** meets quarterly and its principal responsibility is to **monitor our organizational performance in ESG.**

## Infrastructure Division

The Infrastructure Division (MPD) has its own Board of Directors, which informs the Grupo México, S.A.B. de C.V. Board of Directors.

Similar to the roles and responsibilities of the Grupo México, S.A.B. de C.V. Board of Directors, the MPD Board, together with their Executive President and Administrative Department, ensure that decision-making carries benefit and assurance for investors, as well as the sustainability of the companies that comprise the division, under the principles of transparency and accountability. The Board is also responsible for stewarding the efficient use of resources and available assets, monitoring the social and environmental performance of the company, and overseeing risk management.

The internal control department of this division has a system that ensures proper management of their corporate governance in terms of budgetary, economic, financial, equity, regulatory and management aspects, in accordance with the internal control system and guidelines of Grupo México.

Continuing, in adherence of company policies, the sustainability strategy is practiced and permeated throughout all the business units, and the social and environmental performance are monitored and assessed, the management of which is tasked to the operational departments.

The division has a Sustainable Development department which, together with the organization and senior management, facilitates and monitors the implementation of the sustainability strategy at all business units through four pillars:

1. Sustainable investments: Promote economic growth, being inclusive with the community and respectful of the environment. Investments are developed through risk analyses to generate businesses that are sustainable over time.
2. Protection of the environment: With the legal department, we ensure our operations meet full compliance with all Mexican laws. We are continually adopting international good practices to boost innovation and competitiveness.
3. Policies: Development of policies that promote sustainable development throughout the organization; working together with inhouse and outside stakeholders.
4. Communication: Preparing the annual Sustainable Development Report, as well as disseminating our achievements and challenges faced.



## Transportation Division

The GMéxico Transportes Board of Directors had 12 members, 3 of which were independents, 5 were non-executive members and 4 were executive members. The Chairman of the Board of Directors is not the Executive President of the company nor do they hold an executive position in the company. However, there are not independent.

The governance structure of Grupo México Transportes is defined according to the guidelines established in the company bylaws, approved by the Stockholders Meeting (at which company shareholders are represented), which also approves the management report presented by the company Board of Directors.

The mechanisms for appointing the members of the Grupo México Board of Directors, the members of the Executive Committee and the Audit and Corporate Practices Committee also apply to GMéxico Transportes. The GMéxico Transportes Board of Directors met 4 times in 2019, with an attendance record of 100%.

Meeting the needs of today without compromising the needs of future generations by providing a simple, productive and quality service is the fundamental premise of the business strategy of the Transportation Division. An example of this is the 2020 Program, which defines sustainability, service and productivity as pillars of the GMXT business model. To ensure that environmental, social, labor and corporate governance issues are managed integrally and comprehensively at GMXT, the CEO monitors our performance in these areas through the different company departments.

The CEO and Administrative department oversee the Sustainable Development strategy and performance in the Grupo México Transportation Division. The tasks of ongoing management, planning and preparing specific projects are delegated to different departments within the company and are led by the Corporate Projects Department, the Government Relations and Communications Department and Operations. The topics and management activities corresponding to each department are summarized following:



Grain train in Hidalgo, Mexico.

### CEO and Administrative Department:

- Define the company's sustainability strategy, prioritize ESG risk management and define the lines of action for the different company departments.
- Oversee the performance of the GMXT departments.

### Corporate Projects Department:

- Ensure, together with Legal, that both new and existing projects meet environmental compliance.
- With the Government Relations and Communications Department, provides relevant information and analyses to the CEO to define the sustainability and climate change strategies for the Transportation Division, and the ongoing improvement of these strategies.

**Meeting the needs of today without compromising the needs of future generations by providing a simple, productive and quality service** is the fundamental premise of the **Transportation Division's** business strategy.

**Government Relations and Communications Department (Grupo México):**

- Coordinates the management and publication of ESG information for the Transportation Division, to communicate this to our stakeholders, including the Board of Directors, rating agencies and investors, among others.
- Provide to the Mining Division CSDD the relevant information for the Transportation Division.
- Produce information and advise other areas of the company on developing policies, risk analysis and management systems on ESG aspects.

**Operations:**

- Plans, develops and executes occupational health and safety management systems through the Department of Occupational Health and Safety.
- Develops and implements environmental management and protection initiatives, as well as for fuel and energy savings.



# **ETHICS & INTEGRITY**

## ETHICS & INTEGRITY

### 103-1

Grupo México has an internal control system that provides the company with tools to minimize the possibility of improper conduct, in violation of professional ethics. In addition to these tools, when Grupo México senior management act with integrity, leading by example, they lay a path for all collaborators to follow. Building a solid base of business ethics has positive, long-reaching effects for Grupo México, as it helps to attract and retain talent, and to build and maintain a reputation among our neighbor communities, as well as with investors.

Given this, business ethics and integrity are a core piece of the operations of Grupo México. This is shown in the company's efforts to have a robust internal control system that minimizes the risk of ethics violations. These systems apply to all Grupo México operations, both the business units and the corporate offices, as well as throughout the value chain.

### 103-2

At Grupo México, business ethics and integrity are managed through a series of instruments that help our collaborators and the company to minimize the risk of improper conduct. The Internal Control department (part of the Administrative Department) manages this topic area. This department is charged with overseeing the safeguarding of the company assets, ensuring compliance with professional ethics and gathering objective and reliable financial information. Internal Control creates the institutional supporting framework and ensures there are processes and protocols in place to minimize the probability that collaborators, at any level within the company, would violate our professional ethics. Internal Control not only defines the company policies in this area, but also sets the sanctions for violations.

Internal Control bases their work in this area on the COSO Framework, an internationally recognized tool that was developed over twenty years ago to provide organizational leadership on three fronts: enterprise risk management (ERM), internal control and fraud deterrents. COSO is an essential tool for a company to reinforce its internal control systems to provide assurance in the efficacy and efficiency of its operations, reliability in its financial information and regulatory compliance to guarantee goals are achieved.

The COSO framework includes five components that Grupo México applies, among others, to manage the topic of business ethics and integrity.

- 1. Control environment:** Parameters are defined to manage the internal control of the company in terms of the organizational structure, administrative policies, institutional ethics and hierarchies, authority and responsibility; and also the company's integrity, values and administrative philosophy. The control environment is the base on which the rest of the elements are built and fundamentally influences the goals and strategy of the company.
- 2. Risk assessment:** Risks are identified and analyzed, according to the probability of impact and frequency, to recognize the potential consequences. Each risk (internal and external) is analyzed in this process and classified as high, medium or low. This assessment serves as a starting point to address the most urgent risks and plan strategies to mitigate or prevent these risks.
- 3. Control activities:** Refers to the policies and procedures that determine the proper actions to take to manage the risks, making decisions that favor the operation and achieving goals. All areas of the company, without exception, are responsible for control activities (prevention or detection), which lead to informed decision-making and accomplishing goals.
- 4. Information and communication:** Each area of Grupo México gathers information to analyze the risks and this information is shared to gain a general overview of the company. Communication, internal and external, provides the company with the information necessary for the daily control tasks and for Internal Control to support achieving the goals.
- 5. Monitoring:** Concurrent or separate reviews, or a combination of both. Monitoring is used to determine whether each of the Internal Control components, including the controls to ensure the effectiveness of the principles in each component, is being applied and working. The findings are evaluated and deficiencies are communicated in a timely manner, while significant findings are communicated to senior management.

The **policies** of Grupo México that regulate topics related to professional ethics are:

- 1. Code of Ethics**
- 2. Comprehensive Reporting System**
- 3. Granting of powers and approval limits.** These policies include safeguards to limit the risk of corruption.
- 4. Company manual on the prevention of money laundering.** Includes instructions or guidelines for detecting, reporting and preventing money laundering. The manual is provided to middle management, management and senior management.
- 5. Antifraud policy.** In addition to our policy that includes guidelines to detect, report and prevent fraud, Internal Control sends middle management and above a questionnaire each year to confirm they have no knowledge of fraud and if so, that they report it.
- 6. Corporate Policy on Transactions with Related Parties.** Transactions with related parties must be avoided unless the user area can justify and document that the customer or supplier and/or contractor is the sole supplier, manufacturer or provider with experience in the company, that they have delivered good results and that it is in the interest of the company to contract with them.

Internal Audit regularly evaluates the degree of effectiveness of the company's policies on business ethics and integrity, and annually, through a Sarbanes Oxley independent compliance audit of the requirements and the internal control framework. The review includes an evaluation of the application of the policies mentioned. Internal Audit also evaluates the application of these policies at all Grupo México business units.

## Code of Ethics

The backbone of the strategy to guarantee our business ethics and integrity is the Code of Ethics. This public document is posted on the Grupo México website, is applicable to both collaborators and suppliers, and its scope covers all the countries where the company operates. All collaborators and suppliers are required to sign they have read and adopted the Code of Ethics as a condition for hiring.

The code covers a wide range of topics, from health and safety, harassment, sexual harassment and conflicts of interest, to confidentiality of information, intellectual property, fair competition and bribes. The company provides Code of Ethics training to unionized employees every two years and annually to non-union personnel, including the commitments each is required to adopt and how to use the reporting line. This online training covers the guidelines for collaborator conduct and helps to clearly identify improper conducts and know which steps to take to report such actions.

Additionally, the company has a Comprehensive Reporting System. With this instrument, collaborators at all the business units and corporate offices, stockholders, management, suppliers and third parties with which Grupo México has dealings, can report any violation of the Code of Ethics. Reports can be made via a phone line, voicemail, email or website. The Code of Ethics explicitly states there will be no reprisals against anyone who uses the reporting line. There is an Ethics and Discipline Committee that assesses reports. The vice-presidents of Administration and Control, Legal, Human Resources and Audit comprise this committee.

The process for addressing complaints reported via the Comprehensive Reporting System is described following:

- **Receive:** Incidents are reported through the Comprehensive Reporting System and received by a specialist independent third party to ensure the objectivity of the process. The independent third party groups reports by their level of severity: critical, medium and low. They then send an email to the Ethics and Discipline Committee with the reports and the evidence (where provided) within 24 hours of receiving the report. If a report involves a member of the Ethics Committee, that person does not receive the report.
- **Analyze:** The committee analyzes the cases to define a plan of action. Reports vary greatly and range from fraud and collusion to sexual and/or workplace harassment. The Ethics and Discipline Committee determines which area of Grupo México should investigate the report or whether an outside specialist should be brought in. The committee contacts the person who filed the complaint or report (when the report has not been anonymous) 24 to 72 hours after decision is made to conduct an investigation to inform them their report is being addressed. On the completion of the investigation, the matter may be resolved in a variety of ways, the report may be dismissed, there may be mediation between two parties, an administrative sanction may be warranted, the person may be dismissed, or other legal sanctions may be applied as the case merits. Once the plan of action has been defined, the Ethics Committee follows up on the application of the solution at its monthly sessions.
- **Communication about results:** Once the report has been addressed, the independent third party updates the status of the report on the Comprehensive Reporting System (status changes from being processed to being addressed) and produces a quarterly report for the Ethics and Discipline Committee with statistical information on the reports received. The Ethics and Discipline Committee then reports quarterly to the Audit Committee the results and activities related to the reporting line to monitor the performance and improvements implemented. The Ethics and Discipline Committee, when the report was not anonymous, inform the person who filed the complaint or report of the results of the investigation and the measures taken within 24 to 72 hours after the matter has been resolved. The person who filed the complaint or report is notified directly and according to the information available (email or phone).

The Reporting Line is available in the local language in Mexico, Peru and the United States.

## Additional initiatives

### Anti-corruption training

Internal Control updated and added a training module for management (middle management and management) in 2019, and for all collaborators who, because of their position in the organization, have contact with public officials and civil servants. This training is based on the FCPA (Foreign Corrupt Practices Act) and seeks to prevent acts of collusion or corruption between collaborators and any public official (federal, state or municipal). The training also includes information about local and international legislation on corruption, as well as the seven guidelines the FCPA recommends to prevent acts of corruption. This training was first delivered in 2015 and the new version is expected to be applied in 2020.

### Technological improvements in Internal Auditing

Grupo México implemented a unified Risk-Based Internal Audit methodology in 2018, aligned with the requirements of the International standards for the professional practice of internal auditing, issued by The Institute of the Internal Auditors. This COSO-based tool provides a frame of reference for the implementation, management and control of an internal control system. At SCC, the methodology also meets the requirements of the Sarbanes Oxley Act and the Security and Exchange Commission (for companies that trade on markets in the United States).

Under this unified methodology, Internal Audit identifies risks based on the mission, vision, values and strategic goals of Grupo México, the risks identified by management (Senior Management, Finance, Risk and Internal Control), and the risks resulting from the Internal Audit analysis through quantitative and qualitative assessments of the processes and financial information for the entities that comprise the company and the knowledge of the business. This Risk-Based Internal Audit Methodology informs the Annual Audit Plan for each Division (Mining, Transportation and Infrastructure).

Additionally, technological tools were added to all Internal Audit departments in 2019, which will substantially improve the audit processes, the scopes of each review and the depth of the routine monitoring. An extensive training process was started in 2019 on these tools in all Grupo México Internal Audit departments, which will continue in 2020 moving toward automation and predictive analyses of the data for our entities. These actions have brought efficiencies in the auditor head counts and we have seen improved results in the quantity and quality of the audits conducted by the Grupo México Internal Audit departments.

These improvements represent a unified approach to focus our efforts on the most relevant risks to the company, giving our stakeholders assurance of our effective supervision of the most relevant business processes with a focus on efficiency in the use of resources by the Corporate Audit Department, as well as compliance with business ethics and integrity.

## Values, principles, standards and codes of conduct

102-16

All our operations are conducted under a common approach of cost effectiveness and productivity, striving to maintain a financial balance that makes us a sustainable, strategic and reliable company for our partners, with the capacity to create shared value for our stakeholders.

Given the above, we promote a model of Development with Purpose built on three pillars: Grow, Promote and Protect. Through these pillars, we foster the growth of the company, job stability, the health and safety of our collaborators, strengthen the communities where we work, and care for the environment.

**Mission:** To meet the needs of our markets through large-scale and long-term projects, staying on the cutting-edge in technology, and always committed to our people, the environment, our values and our social responsibility, maximizing the generation of value for our stockholders.

**Vision:** To be the world leader in efficiency and profitability in our areas of business, prioritizing people and their overall development, guaranteeing the sustainability of our operations.

### Values:

Honesty. Acting with integrity, professional ethics and ongoing improvement.

Respect. For all persons, laws and the environment.

Responsibility. Fulfilling our commitments with results.

## Mechanisms for advice or concerns about ethics

102-17

The core pillars for managing our business ethics are our Code of Ethics and our Comprehensive Reporting System.

The complaints and reports received and addressed in 2019 through the Comprehensive Reporting System were the following:

Categories	Minera México	SPCC	ASARCO	GMXT	Infrastructure	Total
Matters related to Human Rights (abuse of authority, sexual harassment, improper/unsafe work conditions, employee behavior, unfair dismissal, discrimination, workday, urban co-existence issues)	82	16	4	147	5	254
Matters related to Business Ethics (conflict of interest, falsified information and technical reports, investigation, theft of company goods, customer service, improper use of assets/resources)	41	12	0	10	2	65
Others (not provided/others)	16	0	0	0	1	17
<b>Total</b>	<b>139</b>	<b>28</b>	<b>4</b>	<b>157</b>	<b>8</b>	<b>336</b>

## Operations assessed for risks related to corruption

205-1

All Grupo México operations are reviewed with zero tolerance to corruption. The processes of the Internal Control and Internal Audit departments are applied across the board at all levels of the company and at all our business units. As a result, all Grupo México operations, in the three divisions, in all the countries where the company operates are subject to assessments for risks associated with corruption, as part of our ongoing risk management.

## Communication and training about anti-corruption policies and procedures

### 205-2

All Grupo México collaborators are required to sign they have read and agreed to be held to the principles laid out in the Code of Ethics. The anti-corruption policies included in the Code are delivered to all collaborators in all the countries where we operate. Grupo México had 30,000 employees in 2019. Signing on to the Code of Ethics is also a requirement for contracting with any supplier, therefore all receive our anti-corruption policies. Grupo México worked with 13,300 suppliers in 2019. To reinforce the content of the Code of Ethics, provided to all collaborators and suppliers, we routinely disseminate information at all our business units through posters, communiques and notes on the intranet, encouraging collaborators to not engage in conduct that would violate our professional ethics.

In addition to the Code of Ethics, Grupo México communicates our anticorruption policies through two instruments: conflicts of interest and related parties disclosures, and the antifraud questionnaire. The conflicts of interest and related parties disclosures were sent to all senior management, management and middle management in Grupo México in 2019. The number and percentage of responses is reported in the table following:

	Southern Copper Corporation (Minera México and Southern Peru)	Infrastructure	Transportation
Senior management, management and middle management who signed the statement	218	31	225
Total senior management, management and middle management	254	88	225
% response (total executives who signed / total executives)	86%	35%	100%

The antifraud questionnaire was sent to all senior management, management and middle management at Minera México and Southern Peru in 2019 (the questionnaire does not apply in the Infrastructure and Transportation divisions). The number and percentage of responses are shown in the table following:

	Southern Copper Corporation
Senior management, management and middle management who completed the questionnaire	281
Total senior management, management and middle management	314
% response (total executives who responded / total executives)	89%

In addition to these communications, as explained, the company offers Code of Ethics training every two years to unionized employees and annually to non-union employees. In 2019, 5,858 employees in the Mining Division completed this training (2,289 in Mexico and 3,569 in Peru), representing a response rate of 75%. All our 281 executives (senior management, management and middle management) completed online Code of Ethics training (for more details, see the chapter on Human Rights, GRI indicator 412-2, page 300). In terms of ASARCO, 461 non-union collaborators completed Code of Ethics and conflict of interest courses. All 391 company executives (senior management, management and middle management) completed the Code of Ethics and conflict of interest training.

In the Infrastructure Division, we continue working towards training all our workforce on topics related to anticorruption. In 2019, 75% of senior management (15 of 20) received training, while 38% of our other employees (382 of 1,010) completed the training. The training tools most used in this process were communication campaigns through messages projected on the screens at each work center, emails and videos.



## Confirmed incidents of corruption and actions taken

### 205-3

No cases of corruption were reported in 2019 in the operations of any of the three Divisions of Grupo México. The audit departments in each division analyzed the different locations and lines of business through random samples to assess the vulnerability of the company in terms of risks associated with corruption. At Grupo México, we have zero tolerance towards corruption, fraud, conflicts of interest or any action or activity contrary to the values and standards of the company.

## Contributions to political parties and/or representatives

### 415-1

Grupo México does not make any type of donation or payment in money or in kind to organizations that would create or influence public policy, legislation and regulations. The company does not make any type of contribution to political campaigns, political parties, lobbying or to trade associations, as this could generate risks of corruption and damage the reputation of the company. Additionally, our Code of Ethics prohibits donations of any kind and political contributions, as well as any political participation or activities of this nature in the name of the company.

## Legal actions related to unfair competition or antitrust practices

### 206-1

There were no legal accusations of unfair competition or antitrust practices involving the Infrastructure Division in 2019. It is important to note that the division has a team of legal experts that follows up and addresses any anomalies.

The Grupo México Transportation Division has driven the growth and competitiveness of the railroad system in Mexico since we started operations over 20 years ago. One of the company's major achievements is that we have increased the capacity of the trains throughout the system and we have increased our market share. GMXT moved one fifth of the total tons transported overland in Mexico in 2019. Thanks to this progress and competitive growth, the company was not involved in any accusation of unfair competition or antitrust practices in 2019. The railroad concessionaires in Mexico and the owners of the rail lines in the United States are required to maintain the competitiveness of the railroad system.

## Non-compliance with social and economic laws and regulations

### 419-1

The Infrastructure Division did not receive any fines or non-monetary sanctions for non-compliance with social or economic laws or regulations in 2019. The legal affairs, community development and projects departments work together to identify hazards and define risk controls, to meet legal compliance and reinforce our commitment to the community.

The Grupo México Transportation Division did not receive any fines or non-monetary sanctions for non-compliance with social or economic laws or regulations in 2019. The Government Relations and Communications team and the Planning department are diligent in assuring the integrity of the railroad right of way, taking into account the opinions of the communities and municipalities through which the train passes.

## Non-compliance with environmental laws and regulations

### 307-1

In 2019, the Mining Division received a significant fine<sup>6</sup> in Mexico in 2019, for US\$50,690, as well as a non-monetary sanction requiring the company to present a soil remediation proposal to the environmental authorities. This sanction was associated with an unintentional spill of water containing tailings sediments during the startup tests at the San Martin mine in Zacatecas. The company contested the decision as provided for by Mexican law, and the fine was suspended until final judgment is pronounced by the court hearing the matter. The company considers that the evidence provided will refute the alleged violations of soil contamination.

The Infrastructure Division did not incur in any non-compliance with environmental laws in 2019 that would generate litigation or fines for the organization. Under our environmental management system, each site has its own legal compliance matrix to ensure due compliance with our environmental obligations held with the government and our neighbor communities.

The Transportation Division did not receive any significant non-monetary environmental sanction in 2019. The company did receive a non-significant sanction involving a derailment that occurred in years past.

6. The Mining Division defines significant fines and sanctions as those in excess of US\$50,000.00



**WATER**

Pump system at the Buenavista del Cobre Mine, Sonora, Mexico.

The Mining Division reduced fresh water usage by 6.6% while increasing production 12%.



## WATER

103-1

Grupo México is aware of the importance and challenges associated with sustainable water management and we are committed to caring for this essential resource that is strategic in our operations. This care includes activities throughout the lifecycle of the project and the entire productive chain, where water usage plays an important role. We have identified and developed programs to address the principal risks that could result from our operations.

We are aware that we operate in a dynamic environment where the increased population and their right to aspire to a better quality of life demand greater consumption of natural resources, such as water. To this we add the issue of climate change, which threatens the stability of the water cycle and its availability, increasing the vulnerability of our operations.

Grupo México adheres to national and international regulatory guidelines that establish measures to prevent, control and mitigate potential impacts on the environment, including the issue of water. However, the company faces challenges, such as reducing our water consumption, increasing our reuse of fresh water, monitoring the water balance at our sites and in our neighbor communities, as well improving the efficiency of the water treatment systems. In this regard, we are working on defining a new corporate strategy to incorporate best practices in the sector.

Water management is a priority for Grupo México and all our business divisions and subsidiaries. The water we consume comes from water tables, surface water, recycled water and, on occasion, from the public supply. We promote responsible and sustainable water usage, through comprehensive water management systems.

### Mining Division

The Grupo México Mining Division has 19 active operations in three countries (USA, Mexico and Peru). Water is a major resource for our mine and processing operations and is used mainly in ore processing, dust abatement, transporting tailings and other productive processes, and for general services. We care for the availability of water, as this could affect not only the viability of our mine operations, but also the community, ecosystems and neighboring economic activities. We also care for the quality of the water we return to the natural systems through monitoring and treatment, where necessary.

**103-2**

Grupo México's water management complies with regulations on withdrawal and discharge in all the countries where we operate, and includes:

- Prompt payment of water rights.
- Proper management of withdrawal and usage rights, licenses, concessions and permits for surface water and/or groundwater.
- Quality monitoring measures for wastewater and, where required, the implementation of treatment systems.
- Analysis of our water system monitoring at our operations in terms of availability, volume and water quality, to determine behavior and to identify and mitigate risks.
- Adoption of international good practices, such as the guidelines provided by the International Council on Mining and Metals (ICMM) Water Stewardship.

Our commitments are to:

- Comply with regulations on water usage and water management.
- Monitor and report on our water management according to applicable regulations.
- Set corporate goals that promote ongoing improvement and the sharing of good practices in and outside the organization.
- Promote the use and development of technologies to improve the efficiency of our water usage to reduce the amount of fresh water we use and increase recirculating and reusing water.

**Corporate goals**

The 2022 corporate goals are:

**1. Revise our baseline analysis at all Mining Division business units**

Our operations are currently preparing gap analyses based on the International Council on Mining and Metals (ICMM) Water Management Guide to define the next actions to take.

**2. Systematically monitor our operations and impacts on water basins and aquifers in high water stress areas that supply the operations of the Mining Division.**

We have identified 14 mine operations in high water stress areas in Mexico, the United States and Peru (using the World Resources Institute Aqueduct Water Risk Tool). We have an ongoing program in place to record and monitor water at our operations where these basins are located. The gap analyses will help us to adjust and align our strategies to manage the water basins on which we depend. At 2019 yearend, 47% of our mines have an SBC system in place.

Water management at Grupo México focuses on three different pillars:

1. Protect the quality of the water.
2. Improve efficiency in our water usage.
3. Collaborate with other players in managing the basins where we work.

**Roles and Responsibilities**

Water management at the Grupo México Mining Division is the responsibility of each unit and is supervised by the Environmental Affairs department in each country, reporting regularly to the Corporate Environmental Affairs Department and the Sustainable Development Department. Information about environmental performance is also presented to Senior Management at the quarterly meetings of the Sustainable Development Committee.

It should be noted that operational, environmental and water services personnel have performance goals laid out on our *Talent Management platform*, a tool implemented by the Human Resources department, which establishes the goal, the rate of compliance and, where identified, the need for additional training to achieve the goal. Reviewing these goals is part of the annual work performance review.

Grupo México's **water management** ensures we are in compliance with **extraction, withdrawal and discharge** regulations in all the countries where we operate.

## Specific actions, such as processes, projects, programs and initiatives

Our actions to address the three management pillars mentioned above, are:

- **Protect water quality.** Grupo México systematically monitors and analyzes the quality of the water that we return to the environment at all our mine operations to ensure we are in compliance with current regulations. We adhere to international best practices and use accredited labs for the testing and procedures required to guarantee reliable results. We also have water treatment systems that are designed to address the particular needs of each site, not only for the mine operations but also for the neighborhoods where our collaborators live.
- **Improved efficiency in water usage.** Grupo México is working on the ongoing and systematic identification and implementation of different actions geared to the specific situation of each business unit to ensure the continued availability of water from the aquifers on which our operations depend. We design, implement and use high-tech devices and innovative systems to reduce water consumption and increase recirculation, prioritizing the stages of the productive processes where the use of this resource is the most critical. Some relevant examples include circuits to recirculate water in the processing processes and tailings deposits, as well as cutting-edge technologies to thicken concentrates, continually improving our production processes to make our use of water more efficient.

We have adopted best practices in these strategies, reducing operating costs to then reinvest in our processes in our communities.

- Grupo México supports our neighbor communities, ensuring their water supply is sufficient in quality and quantity.

Grupo México protects the availability and quality of water at the sites where we operate, **collaborating with the communities in the efficient use of water and improving the efficiency of our own water usage.**

## Evaluation mechanisms

### 103-3

Grupo México measures water performance through quantitative and qualitative indicators, including water consumption, water withdrawal, discharges and operations in water stress zones. The qualitative indicators assess physical risks, analyze the official statements on water stress in the zones where we operate, measure water in terms of its composition, and water management considering the downstream use by third parties.

It should be noted that our performance is reviewed through inhouse and independent audits. Additionally, this performance is reported quarterly at the meetings of the Sustainable Development Committee on which company senior management serve, designing strategies to achieve the objectives defined. The water consumption and costs are also reported to the Board of Directors.

### Evaluation results

The evaluation of the indicators helps to identify areas of opportunity, needs, risks, possible synergies, etc. Senior Management defines the actions to take and progress is reviewed regularly.

One example of the effectiveness of this is the Toquepala operation in Peru, which had been processing 60,000 tons per day and has now been increased to 120,000 tons per day without increasing the use of fresh water, reducing the unit consumption of fresh water from an average 0.75 m<sup>3</sup>/tn to 0.49 m<sup>3</sup>/tn (in 2019).

**Goals and objectives are set for our operations to reduce the water consumption per production unit** and increase water recirculation.

## Interaction with water as a shared resource

### 303-1

Water is essential for the viability of our mining processes and managing this resource properly prevents potential impacts on both the availability and quality of the water from the aquifers near our mine operations.

Each process at our mine operations uses volumes of water in a different proportion, depending on their requirements, whether it is used for exploration or exploitation, or in the concentration by flotation processes, smelting, electrorefining or the hydrometallurgical process (leaching, solvent extraction and electrowinning). Water is also used to transport waste (tailings). Therefore, there is a close relationship between mining and water, which requires responsible and informed management to ensure its sustained use.

A scarcity of water could affect not only the mine operations, but also our neighbor communities and economic activities. This is particularly relevant in light of the effects associated with climate change.

If not properly cared for, the quality of the water returned to the environment could have significant environmental impacts on the ecosystems or reduce the possibilities of use downstream.

To face these challenges, Grupo México is preparing technical studies to gather information and incorporate the climate change aspect into our comprehensive water management strategies.

Grupo México protects the availability and quality of the water at our sites, collaborating with the communities to use water efficiently and improving efficiency in water usage.

The ongoing measures of the quantity and quality of the water the company uses at our different sites and operations, and the water returned to the environment, help to identify the potential impacts as well as preventive and corrective measures to prevent and, eventually, mitigate these impacts.

With this in mind, Grupo México pays its water rights and is in compliance with all the terms and conditions established in the water permits we hold.



The Cularjahuira dam will store 2.35 million cubic meters of water during the rainy season, which will irrigate more than 500 hectares of land strengthening the farming in this region of Peru.

The measuring systems in place collect data on the volumes of fresh water used, recovered water and the water returned to the water systems. We also regularly monitor the parameters of the water quality according to the methods, procedures and guidelines laid out in local regulations to guarantee there are no environmental impacts and that other users of the basins where we operate are not affected.

### Peru

The impact of withdrawing both surface water and groundwater is identified based on a sustainability approach for the water sources in the medium and long term in an area where multi-year humid and dry periods are a characteristic of the arid region of southwest Peru. This is classified as a hyperarid area with a potential evapotranspiration / precipitation factor of  $<0.03$ , according to Pedro Rau (2019).

There are also farmers and livestock producers in these arid basins who depend on the seasonal and multi-year variability of water. Therefore, regulation and improved efficiency in water usage are fundamental to maintain the mine operation. In this context, we have basin-level studies (assessments of the water resources in the basin and the implementation of infrastructure under the *Locumba River Comprehensive Usage Plan 2017*), which identify the actions needed to achieve the goal. We also collaborate on the investment programs of the state, as well as being required to adhere to the *Tacna Region Drought Management Plan, 2018*.

We have identified the impacts associated with water management and we are continually reviewing the preventive actions taken, monitoring the levels of the aquifers and the quality of the water that is returned to the environment.

We adhere to the terms and conditions set in the permits we hold and have monitoring actions in place to detect situations of risk that could be anticipated and addressed in a timely manner.

There are also preventive maintenance programs in place to ensure our equipment and sites prevent unnecessary losses of water. The supervisory activities give priority to those elements of the processes where water is used in greater volume and where they are greater risks of loss, particularly in the pump systems.

The activity of monitoring water consumption and the quality of the water returned, is reported regularly to the water authority, which follows up on these two aspects.

### Mexico

Comprehensive water management seeks the democratization, opening and participation of all groups interested in water management as the best tool for the sustained development of the resource. The focus is managing and developing water resources in a sustainable and balanced way, taking into account the social, economic and environmental interests. We seek a solution to problems aimed at achieving results that are socially equitable, environmentally sustainable, economically efficient and politically viable, while being acceptable for all.

In Mexico, the legal mechanism for comprehensive water management is through our Watershed Councils. These are joint collegiate bodies that include representatives from the three levels of government, as well as users and citizen or non-governmental organizations that come together to address issues around comprehensive water management in a specific geographical area, favoring coordination, agreement, support, consultation and advisement between the different players.

There are 26 watershed councils throughout Mexico. In Sonora, the company is part of the *High Northwest Watershed Council*, which manages the Sonoyta, Concepción, Santa Cruz-San Pedro and Sonora River Basins, which together represent 48.74% of the territory in the Northwest Water Management Region (equal to 96,300 km<sup>2</sup>). This council covers 32 municipalities in the state of Sonora, including Puerto Peñasco, Caborca, Nogales, Magdalena, Cananea and Hermosillo as the principal population and economic centers in the region. The council reviews the current information on the characterization of the water region in the areas around our operations to jointly take action to support the sustainable development of the plant and animal habitats, and to make water more accessible for humans and wildlife.

Additionally, the Community Relations department conducts activities to support the communities near our operations. In 2019, we set up wells in the communities of Zaragoza and Zapata to supply the local residents and build the drainage and waterworks infrastructure for the municipality of Cananea, Sonora.

## Peru

In Peru, Environmental Management Instruments (EMI) include Participative Monitoring in our Environmental Management Plans, to engage stakeholders when assessing the impact of our operations on the quality of the water.

The National Water Board implements an *Annual Water Demand Plan* by basin each year, in which we participate in designing the procedures for assigning water availability, contributing hydrometeorological information for the authority to ascertain the real availability of water at the start of the farming year. The Watershed Council prepares this Annual Plan, which is implemented by both farm and non-farm users.

Also, the National Water Board *Blue Certificate Program* (at our Toquepala and Cuajone operations since 2019) benefits our neighbor communities with the implementation of an ongoing improvement plan for the efficient use of farm water and water quality. The indicators are the reduction of the water footprint from our processes and the implementation of a shared value program at the basin level through: i) Programs of Social and Environmental Responsibility; ii) Reforestation-ecosystem restoration; iii) Improvements to waterworks, distribution and storage; iv) Implementation of measuring and control systems; v) Construction and/or optimization of water systems to improve efficiencies, and vi) Treatment of water for human use and wastewater.

## United States

Our Mission mine receives a considerable volume of water (nearly 60%) from the Tohono O'odham community and rights on the Arizona Central Water Project, the goal of which is to reduce the water stress on the Santa Cruz aquifer. Meanwhile, the Hayden and Ray operations have been providing drinking water to the communities of Kelvin and Hayden since the end of the 1960's.

The goals and objectives that Grupo México aspires to achieve are based on the principle of ongoing improvement, measuring our consumptions and adhering to the parameters of water quality established in the current regulations in each country where we operate.

The indicators feed the three pillars on which our water management approach is based.

These pillars, and how they are related, are described following:

- A. Company's water balance
- B. Total consumption
- C. Fresh water
- D. Reused / recycled water
- E. Intensity of water usage (m<sup>3</sup>/production unit)

Goals and objectives are established at our operations to reduce water consumption by production unit, and to increase water recirculation. The goal is to consume less fresh water in the process and permit downstream consumers greater access to this resource.

We do this through water balances at our operations, which identify opportunities to improve usage efficiency, while promoting a culture of saving water among our collaborators. The systematic measuring of the unit consumptions for the processes at our different operations helps to set more and more rigorous goals and objectives, based on the principle of ongoing improvement.

Additionally, the ongoing monitoring of the aquifers aids in preventive water management, which contributes to public policies, guaranteeing that the quality and quantity of water are sufficient and adequate to satisfy the human right to water.

Our Peru operations have set goals and objectives associated with water quality to use and return water to the environment. The purpose is to ensure the water we return is apt for the ecosystems, the community and economic activities downstream of our operations. To this, we maintain a system of regular measuring for different parameters of water quality.





We use the latest technologies to increase water recovery and reuse in our processes, reducing the consumption of fresh water and replacing this with recovered water.

### Management of water discharge-related impacts

303-2

The minimum standards for the water returned to the environment as laid out in the national regulations in each country where we operate are:

Mexico	United States	Peru
Official Mexican Standard NOM-001-SEMAR-NAT-1996-001 sets the limits permitted for pollutants in discharges of wastewater in Mexican waters and assets. A discharge permit is required when wastewater is filtered, deposited or injected into a federally-owned receiving body (current or natural water deposit: river, basin, dam, catchment or ocean), ongoing or occasionally, or when filtered into lands, federal or not, and could contaminate the subsoil or the aquifers.	A permit is required when there is a potential for discharges of wastewater to receiving bodies considered federal waters, in accordance with section 304 (A) of the Clean Water Act.	Quality control is based on the criteria defined by the Environmental Quality Standards for water and the Permitted Limits established in the Federal Environmental Law, Law No. 28611.
Specific discharge conditions the authority may set for a particular facility, according to the type of contaminants that may be produced and the conditions of the receiving body.	The EPA requires mine acid drainage to comply with the discharge limits (EPA 40 C.F.R. Part 440). The limits depend on the type of mineral extracted (EPA 40 C.F.R. 440.10).  The Aquifer Protection Permit is intended to prevent the degradation of groundwater catchments from industry, including discharges like tailings dams, leaching heaps, industrial water dams, etc. (AAC-R-18-9-Article 2).	

### Water withdrawal

303-3

A. Total water withdrawal from all areas (in megaliters), and a breakdown of this total.

The AMC total water withdrawal in 2019 is 141,709 megaliters:

	AMC		
Megaliters	2017	2018	2019
Groundwater	98,494	102,271	97,316
Surface Water	36,578	39,824	33,974
Seawater	313	311	324
Produced Water	NA	NA	NA
Third-Party Water	10,326	10,793	10,095
<b>Total</b>	<b>145,706</b>	<b>153,197</b>	<b>141,709</b>

B. Total water withdrawal from all areas with water stress<sup>7</sup> (in megaliters) and details of this total:

The AMC total volume of water withdrawal from areas with water stress during 2019 is 116,979 megaliters:

	AMC		
Megaliters	2017	2018	2019
Groundwater	83,95	85,257	82,664
Surface Water	36,578	39,824	33,974
Seawater	313	311	324
Produced Water	NA	NA	NA
Third-Party Water	NA	12	17
<b>Total</b>	<b>120,845</b>	<b>125,401</b>	<b>116,979</b>

7. The term water stress considers the official criteria in each country, which may vary.

## Water discharge

303-4

A. Total water discharge to areas (in megaliters) and a breakdown of this total by the following types of destination:

The total volume of water discharged in Mexico, Peru and the United States in 2019 is 1,567.59 megaliters:

Megaliters	Mexico	United States	Peru
Surface Water	59.243 ML	N.A.	N.A.
Groundwater	140.6491 ML	N.A.	N.A.
Seawater	N.A.	N.A.	1,367.7 ML
Third party water and the volume of this total sent for use to other organizations, where applicable	N.A.	N.A.	N.A.

B. A breakdown of total water discharge to all areas (in megaliters) by the following categories:

Megaliters	Mexico	United States	Peru
Fresh water ( $\leq 1,000$ mg/l total dissolved solids)	N.A.	N.A.	N.A.
Other water ( $> 1,000$ mg/l total dissolved solids)	N.A.	N.A.	N.A.

C. Total water discharge to all areas with water stress (in megaliters) and a breakdown of this total by the following categories:

	Mexico	United States	Peru
Fresh water ( $\leq 1,000$ mg/l total dissolved solids)	N.A.	N.A.	N.A.
Other water ( $> 1,000$ mg/l total dissolved solids)	N.A.	N.A.	N.A.

D. Priority substances of concern for which discharges are treated:

	Mexico	United States	Peru
Method used to define the priority substances of concern, and the international standards, official lists or criteria used.	There are no substances of concern at our mine operations in Mexico, as our discharges are mainly generated by services and cooling systems, all in compliance with the parameters of NOM-001-SE-MARNAT-1996.	The National Pollutant Discharge Elimination System (NPDES) regulates the rain and wastewater discharges associated with industrial activities under the Multi-Sector General Permit issued by the Environmental Protection Agency (EPA).  This permit defines the discharge limits for certain parameters associated with the mining industry. Exceeding a reference limit is not a violation of the permit. The limits on pollutants that can be discharged to a receiving body are set by the standards for the use of water in receiving bodies (household, farming, animals, plants, water life, recreational use, cattle, etc.).	The Permitted Limits are respected for discharges to receiving bodies. The parameters or substances of interest are outlined in DS-010-2010-MNAM, which approves Permitted Limits for discharges of liquid effluents from Mining-Processing Activities.  The National Environmental Quality Standards, established in Decree No. 004-2017-MINAM, apply for waterbodies in their natural state and set the concentration levels for physical, chemical and biological substances or parameters in the water, not representing a significant risk to human health or the environment.
Method used to establish the discharge limits for priority substances of concern.  The specific discharge conditions set the Permitted Limits.	NA	NA	The Permitted Limits apply for discharges to receiving bodies. The parameters or substances of interest are defined in DS-010-2010-MNAM.  These limits consider the parameters and substances of interest, as well as their reference values, which cannot be exceeded.
Number of incidents of non-compliance with the discharge limits	No incidents.	No incidents.	No incidents.

## Mexico

Our operations hold water discharge permits, where required, which set the Specific Conditions for Wastewater Discharges to which we are subject according to the type of receiving body, as defined in NOM-001-SEMAR-NAT-1996.

## United States

All sites in Arizona are considered “Zero Discharge”, which means there are no discharges of wastewater.

## Peru

The Environmental Lab at our operations received accreditation from the Canadian Association for Laboratory Accreditation in 2001. The data from the water monitoring is stored in the Laboratory Information Management System (LIMS) database and includes an analysis of physicochemical parameters for the different control points. Most of our testing methods are based on the Standard Methods for the Examination of Water and Wastewater and the results are reported to the authorities.

## Water consumption

### 303-5

The water consumption for the Mining Division is reported in 303-3 Water withdrawal on page 97.

## Infrastructure Division

### 103-1

The Grupo México Infrastructure Division recognizes the challenges of water management, as well as the related social, economic and environmental implications. In this context, we are committed to looking after this resource at all our operations, meeting due compliance with Mexican regulations and adopting international standards voluntarily.

The Infrastructure Division has more than 20 operating sites, where water is primarily used to generate electricity, supply the oil rigs, prepare roads at our construction sites, and mix cement, among others. All our operating sites have effluent treatment plants, ensuring we are in compliance with the Mexican standards applicable. As water

is fundamental to the continuity of the operations of the Infrastructure Division, we are constantly monitoring our industrial processes, incorporating technologies to make water consumption efficient, and we hold informational sessions each month promoting our environmental culture with company personnel and contractors. We are currently defining strategies to manage our water resources with an approach that is based on sustainability.

Protecting the quality of the aquifers and waterbodies in Mexico is fundamental in our water management practice at Grupo México Infrastructure. For this reason, all the operating sites of the different subsidiaries have treatment plants fitted with the technology necessary to chemically and physically treat wastewater. This ensures the quality of the water discharged to waterbodies is in compliance with Mexican environmental regulations.

We are currently revising our strategies to increase the recycling of treated water from our processes. Some potential actions are: spraying roads, green spaces, filtration to aquifers, among others, and also donating water to sectors or services where it can be reused.

### 103-2

The Infrastructure Division water management is based on our company policies and procedures, as well as federal and international laws, regulations, codes and standards. Our management system is built on three pillars:

1. Protect water quality: actions to prevent physical, chemical and organic contamination of the aquifers, rivers and oceans from our operations, using local legislation as a reference point. In this context, we conduct chemical analyses of our effluent treatment systems.
2. Improve our efficiency in water usage: define operational strategies to reduce our consumption of water in our processes and services.

1.

3. Collaborate with other players in managing the basins where we work: water is a shared natural resource, which is why we join with other players in the watersheds to protect the sources and respect applicable laws.

#### Roles and Responsibilities

- **Senior Management:** Designs the strategies for generating more sustainable business; oversees the application of the environmental management systems.
- **Environment:** Design actions to implement corporate strategies, support meeting legal compliance by adopting environmental best practices and controls to prevent damage to the environment; train personnel on environmental issues; verify the policies and procedures are observed at our worksites, and report anomalies in the operation that could threaten ecosystems or communities.
- **Internal Control:** Verifies the policies are being carried out as laid out in company policies, guidelines and legal terms, producing findings in the event of anomalies, reporting to Senior Management.
- All employees, contractors and suppliers who work with and on behalf of Grupo México are required to adhere to our company policies and procedures on water protection.

#### 103-3

The evaluation mechanisms of the Infrastructure Division in regards to water focus on making our processes more efficient, legal compliance for withdrawal, use and discharge, as well as promoting shared value with the community. The indicators are monitored daily and reported monthly in the monitoring log. Each quarter, we report on our federal obligations to the authority. In parallel and as part of the internal controls, Internal Audit conducts inspections at our operating sites to identify areas of opportunity.

#### Results

Some of the achievements of the Infrastructure Division in 2019 are:

- Clean Industry certification from the Mexican Office of the Attorney General on Environmental Protection (Procuraduría Federal para Protección del Ambiente or PROFEPA).
- The Oil and Construction divisions received their second ISO 14001-2015 certification, demonstrating their commitment to the environment.

The water treatment plants on the highway and bypass in Guanajuato were re-engineered, improving the quality of the water and promoting recycling water for spraying roads, green spaces, etc.

- Of the water used in our civil construction works, 73% was recycled from mining processes. This practice avoids the withdrawal of groundwater, which translates into conservation of aquifers.
- Our offshore drilling rigs use high-tech desalination treatment plants that produce clean water for the workers. In parallel, each offshore site has effluent treatment plants to ensure our discharges are in accordance with the requirements stipulated in NOM-001-Semarnat-1996 and international regulations.
- Overall, in 2019 the Infrastructure Division reduced water withdrawal by 12%, which supported the conservation of aquifers and ecosystems, most of which in the north of Mexico, which means a positive impact on the semi-arid ecosystems that are characteristic of the region.

### Interaction with water as a shared resource

#### 303-1

Water is an essential resource for the life of ecosystems and for the economic and cultural development of the community. In this context, it is important to Grupo México to include the opinion of the community and non-profits in the management of the watershed. At Grupo México Infrastructure, we meet full compliance with Mexican legislation preventing any type of negative impact that would affect the environment and the community.

In response, we have defined a system of indicators to identify early and control through risk management, hazards and risks at our operations that could affect the ecosystems, ensuring that our presence in the watersheds is safe.

Our environmental management system, in terms of the water aspect, is designed to prevent negative impacts on the ecosystems, waterbodies and communities. We take the following actions to address these issues:

1. We review the status of the water stress at the basins where we operate to identify problems of overexploitation and management early.  
The analysis is prepared with public information from the National Water Board and public international tools.
2. We monitor quarterly the quality of the effluents according to Mexican legislation to maintain the quality of the waterbodies in the regions where we operate.
3. Though the Reporting Line, we listen to the community and respond to their concerns and requirements to avoid disputes about the water usage in our processes.

The goals of the Infrastructure Division in regards to water are defined based on the commitments of our people, our communities and the business. We consider the major social and environmental challenges to define goals that would contribute to improvement in this area.

The process has identified the following principal topics for our attention:

- A. Water consumption and efficiency in our processes
- B. Quality of the water withdrawn
- C. Quality of the effluents discharged
- D. Reuse of water in our processes or with similar users
- E. Monitoring impacts related to consumption

**73% of the water** used in our construction projects was **recycled**, conserving aquifers.

## Management of water discharge-related impacts

### 303-2

The 20 operating sites of the Infrastructure Division operate under the Mexican regulatory framework, specifically NOM-001-SEMARNAT-1996, which provides a list of more than 15 parameters to monitor quarterly, defining the permitted limits according to the waterbody that receives the discharge.

We met full compliance with these parameters in 2019 and we identified no negative impacts on the waterbodies or ecosystems resulting from the discharge of effluents from our processes. This is principally because each site has a water treatment plant that eliminates the pollutants before the water is discharged.

## Water withdrawal

### 303-3

Source	Water withdrawal (megaliters)	
	2018	2019
Groundwater	4,171	3,917
Surface water - fresh	57	82
Surface water - sea	57	168
Other (public supply or truck)	698	231
<b>Total</b>	<b>4,983</b>	<b>4,398</b>

The most important source of water for the Infrastructure Division is groundwater. There was a 6% decrease in withdrawal in 2019, as there was a lower demand for electricity from the combined cycle power plants in Naco-zari, Sonora. Another significant decrease was in the consumption of water from the public supply or trucks, due to the activities of the construction division in northern Mexico, with a reduction of 67%.

Our consumption of surface water from the sea and used at the oil rigs in the Bay of Campeche increased withdrawal to 110,387 m<sup>3</sup>. This is because six of the seven company-owned rigs were operating at an average 98% capacity in 2019, generating greater demand compared with last year.

The overall water withdrawal by the Infrastructure Division decreased 12%, considering all the different sources. Most of these reductions were reported in northern Mexico, in areas with arid and semiarid ecosystems, generating positive effects in the region and the ecosystems with this 585,919 m<sup>3</sup> reduction.

There is no water stress at the sites where the Infrastructure Division operates, according to available information.

The water we consume is primarily fresh groundwater, meaning less than 1000 mg/l of total dissolved solids, while 4% comes from seawater. This is because we mostly use water on land.

Source	Water extraction (megaliters)	
	SDT (<1000 mg/L)	SDT (>1000 mg/L)
Groundwater	3,917	
Surface water - fresh	82	
Surface water - sea		168
Other (public supply or truck)	231	
<b>Total</b>	<b>4,230</b>	<b>168</b>
<b>Total withdrawal</b>	<b>4,399</b>	

## Water discharge

303-4

The Infrastructure Division channels discharges to two final destinations, primarily. The first and most important is discharged to shallow waterbodies, which receive 85% of the total wastewater from the onshore operations. The remaining 15% is sent to sea bodies and is produced from the processes at the ocean rigs in the Bay of Campeche.

Subsidiary	Final destination	Discharge (megaliters)
CIEM	Surface water	776
PEMSA	Seawater	138
CIBSA	Surface water	2
MCC	Surface water	3
<b>Total</b>		<b>919</b>

Subsidiary	Final destination	Discharge (megaliters)	
		SDT (<1000 mg/L)	SDT (>1000 mg/L)
CIEM	Surface water	776	
PEMSA	Seawater		138
CIBSA	Surface water	2	
MCC	Surface water	3	
<b>Total</b>		<b>781</b>	<b>138</b>

The principal pollutants in our wastewater are associated with the Biological Oxygen Demand and Chemical Oxygen Demand, as well as types of nitrates, nitrites, sulfates and ammonium.

These parameters are directly related to the organic discharges at our operations. It is important to note that effluents pass through biological, chemical and electroflocculation treatments at the Treatment Plants, guaranteeing the removal of pollutants to fall within the parameters of Mexican compliance.

An analysis of the quality of the effluents at our operating sites is prepared quarterly and the samples are sent to a commercial lab certified by the Mexican Accreditation Agency. This lab conducts analytical and systematic testing for the pollutants defined in NOM-001-Semarnat-1996, which provides a list of more than 15 physical, chemical, biological and radioactive parameters.

The lab sends the results to the National Water Board, which then verifies compliance directly.

Each operating site completed four effluent analyses for each discharge point during 2019, in accordance with federal water requirements.

Our 20 operating sites were in full compliance with the quality of discharges from our processes in 2019, in accordance with the permitted limits under NOM-001-Semarnat-1996.



Water is the most important input in our mining operations. The different mineral processing processes produce tailings, containing water and solids that are passed through thickeners where most of the water is recovered.

### Water consumption

303-5

Subsidiary	Consumption (megaliters)
CIEM	3,129
PEMSA	42
CIBSA	0.06
MCC	311
<b>Total</b>	<b>3,483</b>

Our subsidiaries México Compañía Constructora and Perforadora México were **re-certified in ISO 14001-2015.**

## Transportation Division

### Interaction with water as a shared resource

#### 303-1

The GMXT infrastructure is situated in a wide variety of diverse ecosystems throughout 24 Mexican states and two US states, which makes us vulnerable in different ways to unpredictable climate factors and phenomena caused by the global climate crisis. In ecological terms, the climate in Mexico is primarily arid in half of the country and humid in the other half. Mexico has one of the highest water stresses in the world, as well as climatic variations, such as hurricanes and cyclones along the coasts of both the Gulf of Mexico and the Pacific Ocean. Meanwhile, in terms of our operations in the United States, Texas is also an arid state, while Florida is particularly vulnerable to climate change. In Mexico alone, the railroad passes through more than 100 aquifers and 10 hydrological-administrative regions. However, our interaction with water resources and their usage is not significant as water is not an essential input for the railroad freight service.

The water the Transportation Division uses is primarily for our corporate offices and for washing and cleaning locomotives and railcars. In Mexico, which is a country particularly vulnerable to water stress, the Transportation Division has a few wells from which to withdraw water and most of the water we consume comes from the public supply.

The railroad operation reports no discharges of water and the water resulting from washing locomotives and which is used in the repair shops is returned to the city water system. If a need arises to clean oily water, all the locomotive washing areas have traps that separate the water from other substances, to then channel the used water to the city water supply system. Although water management is not a material topic nor does it represent a major operational risk for the Transportation Division, GMXT promotes comprehensive, responsible and sustainable water management and usage.

Of the water consumed by the Transportation Division in 2019, 56% came from groundwater sources and 44% from the public supply.

### Water withdrawal (megaliters)

#### 303-3

Groundwater	Public Supply	Total
226.30	182.89	409.20

**GMXT promotes comprehensive, responsible and sustainable water management and usage.**

Of the total water consumed by the Transportation Division in 2019, **56% came from groundwater sources and 44% from the public supply.**





**CLIMATE  
CHANGE**



At Grupo México, sustainable development is also a tool to fight climate change.

Our strategy in this area is built on three lines of action: improve efficiency in our use of energy, develop and consume energy from renewable sources and promote activities to capture greenhouse gases.

## CLIMATE CHANGE

201-2; 302-103; 302-1; 302-2; 302-3; 302-4; 302-5; 305-103; 305-1, 305-2, 305-3; 305-4; 305-5

Climate change includes the Greenhouse Gas Emissions and Energy indicators, these being 2 fundamental elements in the organization's strategy against climate change.

### Introduction

302-103-1/2; 305-103-1/2

Science has made it clear that climate is changing the planet, with compelling evidence that this is directly related to human activity. Grupo México recognizes the importance of limiting the increase in global temperatures to below 1.5-2°C compared with the pre-industrial era, which means taking action to transition toward low-carbon economies.

Grupo México operates in sectors that are key to facilitating this transition. The Mining Division produces copper, primarily, a mineral that is essential in the development of clean technologies and generating renewable energy. With our extensive railroad network, the Transportation Division offers low-emission freight transportation solutions that are nearly four times more efficient than trucks<sup>8</sup>. Lastly, the third division of Grupo México develops infrastructure, drilling and engineering projects generating clean and renewable energy.

We recognize the impact of our activities and energy consumption on global GHG emissions, as well as our responsibility to implement reduction actions in keeping with the expectations of our stakeholders. Given the nature and magnitude of our operations, this is particularly important in our mining activity, which requires an intensive use of resources such as water and energy, and which is also vulnerable to extraordinary hydrometeorological hazards and changes in the water cycle. The interactions between mining and climate change are varied and have to do with mitigating and adapting our mine operations to these effects.

8. Source: Association of American Railroads, 2019, The Environmental Benefits of Moving Freight by Rail.

Although preventing environmental degradation is necessary through actions to prevent and offset, we also need to identify, evaluate and address the risks of the effects of climate change in our operations, the natural resources on which we depend, and the communities with which we work.

## Corporate carbon footprint 305-1, 305-2 & 305-3 Scope for measuring the carbon footprint

### 305-103-1

Grupo México has quantified our GHG emissions associated with the use of fuels and consumption of electricity (scope 1 and 2 GHG emissions) in our three Divisions. For the first time this year, we measured our GHG emissions at the corporate level and expanded the scope to include the use of refrigerants, as well as the current emission sources throughout our value chain (scope 3 emissions).

Measuring GHG emissions at the corporate level is important to Grupo México as there are synergies between the different divisions that should be considered in the calculation of the company's total emissions. For example, the Infrastructure Division supplies electricity to the Mining and Transportation Divisions through our power plants, and the Transportation Division provides rail services to the Mining Division to move product.

On including the emission sources associated with the value chain, we are not only adhering to national and international best practices, we are also identifying opportunities to reduce emissions with our company personnel, suppliers and clients. Additionally, we can determine the GHG emissions associated with our operations, beyond our facilities.

Grupo México recognizes the importance of limiting the increase in temperature through **actions that support transitioning to low-carbon economies.**

With this new measuring approach, 2019 was set as the new base year for GHG emissions, serving as a reference for future measures and to set goals to reduce GHG emissions. The measure followed an approach of operational controls, including the GHG emissions for the whole of the value chain for the three divisions that comprise Grupo México: Mining, Transportation and Infrastructure. It is also important to note that we used a "market-based" approach<sup>9</sup> to calculate emissions<sup>10</sup>.

## Operating emissions

### 302-1; 302-2; 302-4; 305-1; 305-2; 305-5

The **total operating emissions** (scope 1 and 2) for the 3 Divisions decreased 19.3% in 2019, compared with 2018 (6,366,493.00 tCO<sub>2</sub>e from 7,890,900 tCO<sub>2</sub>e). The direct emissions (scope 1) remained almost the same at 5.08 MtCO<sub>2</sub>e<sup>11</sup>, representing 79.8% of the operating emissions, while there was a 55.3% reduction in indirect emissions (scope 2) (1.29 MtCO<sub>2</sub>e from 2.88 MtCO<sub>2</sub>e in 2018). This decrease is explained by the new approach for measuring emissions at the corporate level, which avoids double measuring of emissions between the different Divisions. For example, the Scope 1 emissions generated by the combined cycle power plant of the Infrastructure Division are associated with the electricity supplied. Approximately half of the operating emissions of Grupo México were produced by the Mining Division (51%) in 2019, while the Infrastructure Division and the Transportation Division accounted for 26% and 23% respectively.

9. Market-based calculations consider sales agreements for renewable energies (e.g. renewable energy certificates, energy sale agreements and "green" rates) on estimating the emissions associated with supplying electricity. Contrary to market-based calculations, location-based calculations consider only regional production averages on calculating the emissions for electricity.

10. The Global Warming Potential values used to measure the carbon footprint include all greenhouse gases (GHG) considered in the United Nations Framework Convention on Climate Change and the Kyoto Protocol. The calculations of the total emissions, considering all GHG gases, are expressed in tons of carbon dioxide equivalent (tCO<sub>2</sub>e) so the results can be easily compared year to year. The Global Warming Potentials are based on the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change.

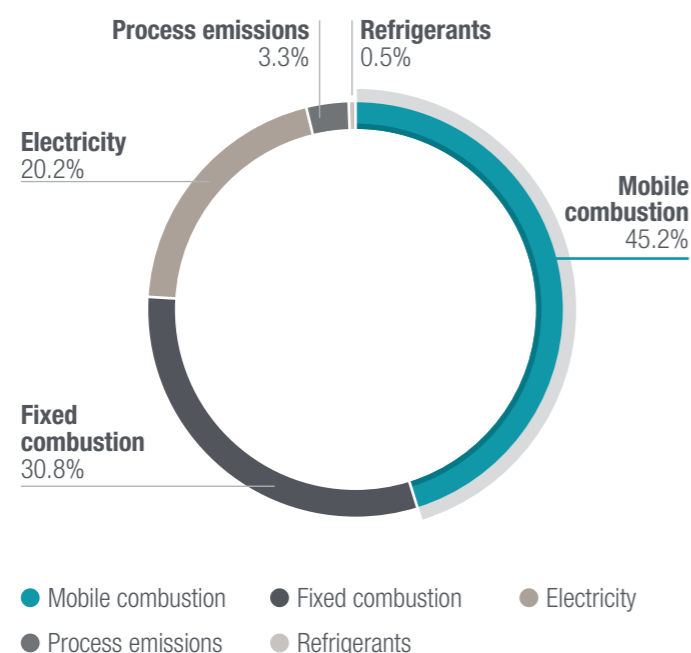
11. Millions of tons of Carbon Dioxide equivalent (MtCO<sub>2</sub>e).

## Operating emissions comparative (2019 vs. 2018)

Division	2019 (millions tCO2e)			2018 (millions tCO2e)			% variance
	Scope 1	Scope 2	Operating Emissions	Scope 1	Scope 2	Operating Emissions	
Mining	1.99	1.27	<b>3.26</b>	1.96	2.87	<b>4.83</b>	<b>- 32.4%</b>
Transportation	1.46	0.02	<b>1.47</b>	1.45	0.01	<b>1.46</b>	<b>0.9%</b>
Infrastructure	1.63	0.00	<b>1.63</b>	1.60	0.00	<b>1.60</b>	<b>1.8%</b>
<b>Total</b>	<b>5.08</b>	<b>1.29</b>	<b>6.37</b>	<b>5.01</b>	<b>2.88</b>	<b>7.89</b>	<b>-19.3%</b>

In terms of the distribution of our operating emissions, fuel consumption represented 76.0% of the emissions of Grupo México (fixed combustion<sup>12</sup> 30.8%, and mobile combustion<sup>13</sup> 45.2%) \*, while electricity accounts for 20.2% - nearly all being produced by the Mining Division. Process emissions<sup>14</sup> represented 3.3%, and the emissions attributable to the use of refrigerants<sup>15</sup> less than 0.5%.

## Operating emissions by category



12. Fixed combustion refers to the use of fuels at fixed sources to generate electricity and heat.

13. Mobile combustion refers to the use of fuels in company vehicles.

\* The fuel consumption for the Mining Division operations in Peru is calculated according to fixed and mobile combustion sources based on the distribution identified for operations with similar characteristics in the rest of the Mining Division.

14. Refers primarily to lime production in Agua Prieta, Mexico.

15. Refers to fugitive emissions related to the use of cooling systems and AC equipment, and CO2 and/or CH4 leaks.

Emissions by type of Greenhouse Gas by fixed and mobile sources				
Category	tCO2e	tCO2	tCH4*	tN2O*
Fixed Combustion	<b>1,959,611</b>	1,957,313	981	1,318
Mobile Combustion	<b>2,878,815</b>	2,834,500	3,843	40,472
<b>Total</b>	<b>4,838,426</b>	<b>4,791,813</b>	<b>4,823</b>	<b>41,790</b>

\*Equivalent in tCO2e

## Fuels

### 302-1

Total fuel consumption by Division and by year (TJ) <sup>16</sup>				
Division	2017	2018	2019	% variance (2018 vs. 2019)
Mining	26,340	25,393	24,802	-2.33%
Transportation	19,908	19,537	19,684	0.75%
Infrastructure	27,820	28,144	28,183	0.14%
<b>Total</b>	<b>74,068</b>	<b>73,071</b>	<b>72,669</b>	<b>-0.55%</b>

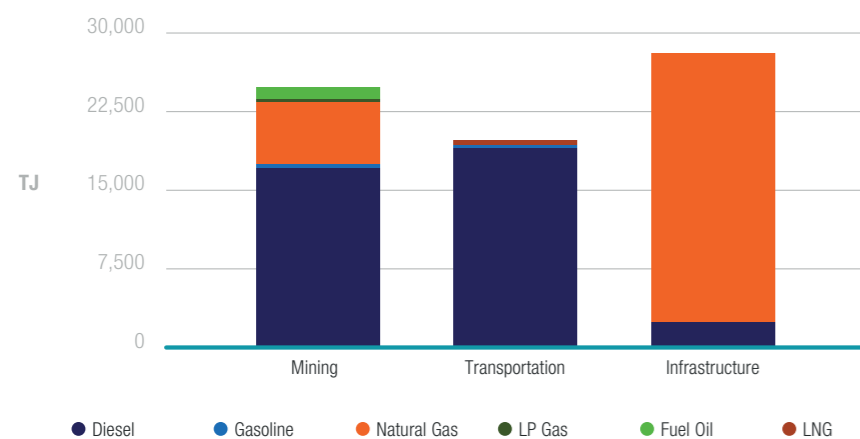
**Grupo México reduced its total fuel consumption<sup>17</sup> 0.55% in 2019** (72,669 TJ from 73,071 TJ in 2018).

The principal fuels used are diesel and natural gas, which represent, respectively, 52.5% and 44.3% of the organization's consumption. The greatest consumers of diesel are the Transportation (49.7% of the total) and Mining Divisions (44.9%). Meanwhile, the greatest consumer of natural gas is the Infrastructure Division (81.1%), due to the La Caridad combined cycle power plant, followed by the Mining Division (18.9%).

16. The standards, methodologies, assumptions and calculation tools used are in keeping with the "Corporate Standard on Measuring and Reporting - Revised Edition" and in the supplement "Standard on Measuring and Reporting for Value Chains (Scope 3)" of the GHG Protocol, developed in collaboration by the World Resources Institute and the World Business Council on Sustainable Development. The conversion factors used were determined based on the country where the consumption of fuel occurred, using the following sources (i) Mexico: SENER 2020 and SEMARNAT 2015; (ii) USA: US EPA 2018; (iii) Peru: Peruvian Ministry of the Environment, and (iv) Department for Business, Energy and Industrial Strategy, 2019.

17. Although the operation requires coke and used oil, these are used as reducing agents in the smelting process and as additives at the mines, and they are not used to generate energy. Therefore, the coke and used oil are measured in the company's GHG emissions inventory, but as scope 3 emissions for consumption of products.

## Fuel consumption by Division (TJ)



**42.1% of the total power consumed by the Mining Division** was supplied by the Infrastructure Division's low carbon **La Caridad** combined cycle power plants.

Fuel consumption by Division (TJ)							
	TJ	TJ	TJ	TJ	TJ	TJ	TJ
Division	Diesel	Gasoline	Natural Gas	LP Gas	Fuel Oil	LNG	Total
Mining	17,143	249	6,083	220	1,107	0	<b>24,802</b>
Transportation	18,969	207	0	12	0	497	<b>19,684</b>
Infrastructure	2,058	39	26,086	0	0	0	<b>28,183</b>
<b>Total</b>	<b>38,170</b>	<b>495</b>	<b>32,169</b>	<b>231</b>	<b>1,107</b>	<b>497</b>	<b>72,669</b>
Contribution (%)	52.5%	0.7%	44.3%	0.3%	1.5%	0.7%	100.0%

Total power consumption by Division (TJ)				
Division	2017	2018	2019	% variance
Mining	24,651	24,830	27,270	9.8%
Transportation	127	147	152	3.4%
Infrastructure	4.4	5.9	7.0	18.6%
<b>Total</b>	<b>24,782</b>	<b>24,983</b>	<b>27,429</b>	<b>9.8%</b>

## Electricity

### 302-2

The Mining Division is responsible for 99.4% of the organization's total power consumption, which was 27,270TJ<sup>18</sup> in 2019. This consumption is 9.8% higher than in 2018, due primarily to the reopening of the San Martin mine in Mexico and the start of operations of the concentrator expansion in Toquepala in Peru.

Of the total power consumed by the Mining Division, 42.1% was supplied by the La Caridad combined cycle power plants of the Infrastructure Division. In 2019, these plants generated 3,456 GWh, representing a decrease of 7% compared with 2018<sup>19</sup>. Of the total energy produced, 92% was used in the Mining Division operations and the remaining 8% (271,389 MWh) was sent to the wholesale electricity market. It is important to note that, unlike previous years, this energy is reported with zero emissions as these were measured in the combustion of natural gas in the Infrastructure Division. The increase in electricity consumption in the Transportation and Infrastructure Divisions is explained by the increase in their activities and the new measuring approach, which now includes in the carbon footprint the power consumed by our corporate offices.

18. Based on a total power consumption of 7,644.76 GWh between the 3 Divisions.

19. This decrease is due to lower demand from our clients in the Infrastructure Division.

## Measuring our carbon footprint helps to set and achieve our goals in **reducing emissions.**

### Scope 3 Emissions

#### 305-3

Grupo México included for the first time in the calculation of our carbon footprint the emissions associated with our value chain<sup>20</sup>. This demonstrates the importance of continually improving the accuracy of this estimate, which provides valuable information to identify opportunities to engage our value chain in the fight against climate change.

**The Scope 3 Emissions of Grupo México totaled 5,142,895 tCO<sub>2</sub>e.** The calculation considered nine categories of the 15 that comprise Scope 3, according to the GHG Protocol<sup>21</sup>. The emissions in the different categories are listed following, along with their contribution to the corporate carbon footprint.

20. The emission factors and assumptions are in keeping with the indicator in the "Corporate Standard on Measuring and Reporting" and the "Corporate Standard on Measuring and Reporting for Value Chains (Scope 3)" of the GHG Protocol. Also, the selection of assumptions and emission factors followed a conservative approach for this first exercise of estimating scope 3 emissions, therefore the emissions in this category could decrease in subsequent estimates as we gain a better understanding of the emissions of our clients.

21. The other 6 categories are not considered relevant to the organization: (1) upstream leased assets not included in Scope 1 or 2; (2) the use of products sold that require energy to operate; (3) the emissions associated with the disposal of waste generated by the products sold; (4) downstream leased assets not included in Scope 1 or 2; (5) franchises, and (6) investments.

Categories of GHG indirect emissions	
Pre-processes, value chain	Emissions (tCO <sub>2</sub> e)
Products and services acquired <sup>22</sup>	761,789
Capital goods <sup>23</sup>	306,752
Fuel and energy-related activities <sup>24</sup>	1,499,548
Transportation and upstream distribution in pre-processes, value chain <sup>25</sup>	65,947
Waste generated by the operations <sup>26</sup>	32,201
Business trips <sup>27</sup>	6,497
Travel by employees between their home and place of work	19,137
Post-processes, value chain	
Transportation and distribution in post-processes, value chain <sup>28</sup>	169,035
Processing of products sold <sup>29</sup>	2,281,989

22. Emissions associated with the manufacturing of products and providing services, for example, purchase of mill balls, lime, ammonium nitrate, ballast, sleepers and asphalt.

23. Emissions associated with the manufacturing of capital goods, for example, heavy machinery, cranes, electrical equipment, pipes, IT equipment and vehicles.

24. Emissions associated with the extraction, processing and transportation of fossil fuels to the point of use (including those used to generate electricity). Also considers electricity lost in the transmission.

25. Emissions generated by the transportation and distribution provided by third parties to the Mining Division (including transportation by sea, rail and road paid by the company).

26. Emissions associated with handling operational waste (dumps, recycling, etc.).

27. Emissions associated with the flights taken by employees and contractors.

28. Emissions generated by the transportation and distribution provided by third parties to the Mining Division (including transportation by sea, rail and road).

29. Relevant emissions for the Mining Division resulting only from manufacturing by clients purchasing the products sold (including cathodes and copper rod, copper concentrate, zinc, lead and molybdenum, as well as refined cadmium, zinc and lead).

The processing of the products sold to customers is a category of emissions that is highly relevant for any sector and organization that produces materials that are the primary inputs for other businesses<sup>30</sup>. The estimate in this category of emissions is useful to identify opportunities to reduce emissions in the long term in collaboration with our customers.

**Fuel and energy-related activities** is another important source of emissions produced by our value chain. These activities are inherently related to the Scope 1 and 2 consumptions as they consider the emissions from extraction, processing and transportation of fuels before use. As consumptions of fuel and electricity are an important part of the Grupo México footprint, it is normal that the Scope 3 category would be elevated.

### Summary of our corporate footprint

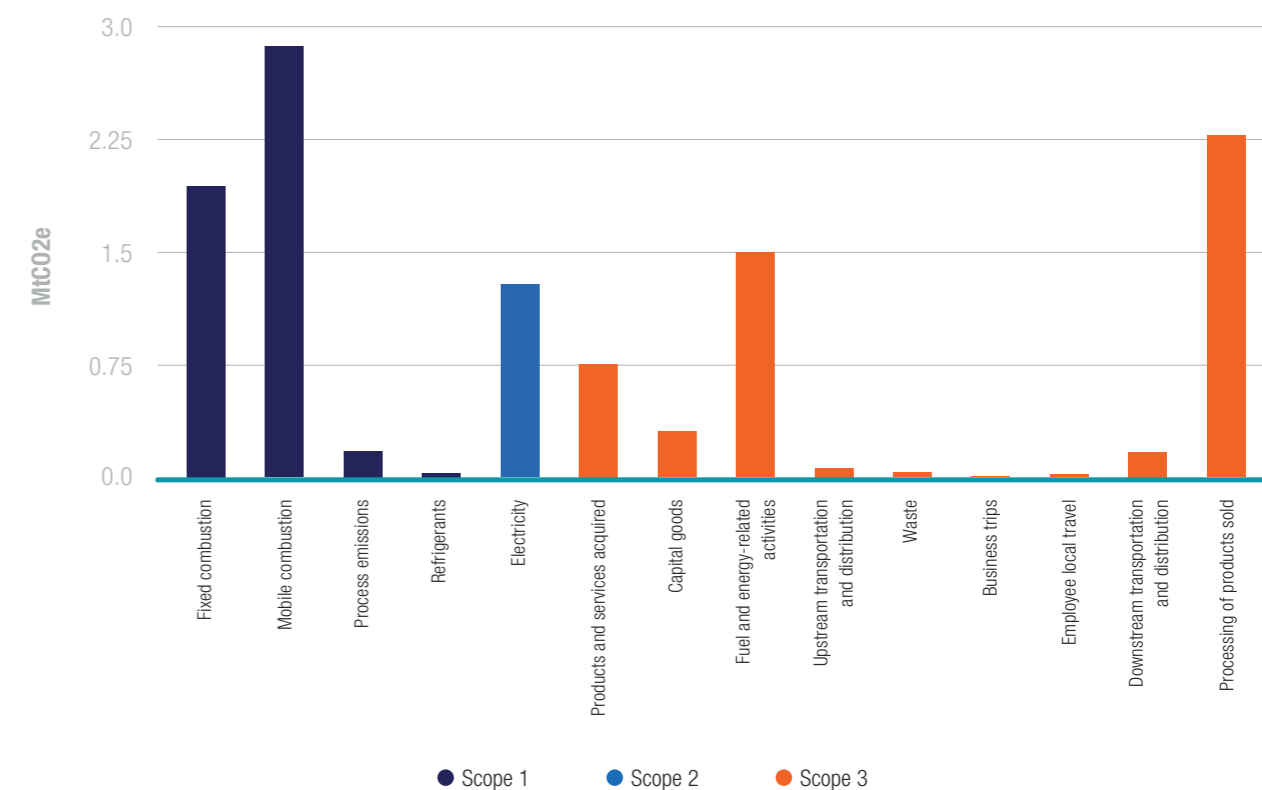
The total GHG emissions produced by Grupo México and our value chain for 2019 were 11,509,388 tCO<sub>2</sub>e.

Total GHG emissions by emission source	Emissions (tCO <sub>2</sub> e)
Operating emissions	6,366,493
GHG Direct Emissions (Scope 1)	5,077,579
GHG Indirect Emissions from consumption of electricity <sup>31</sup> (Scope 2)	1,288,914
Value chain emissions (other scope 3 indirect emissions)	5,142,895

30. This category of emissions is not material for the Transportation or Infrastructure Divisions.

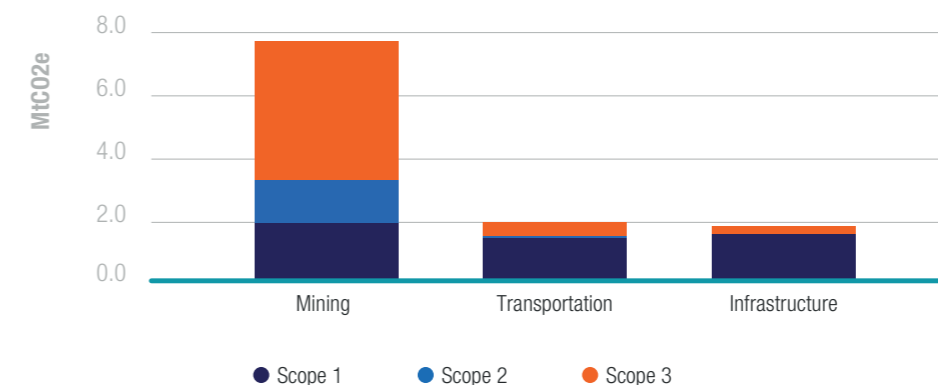
31. Considering contractual instruments (market-based calculation).

### Scope 1, 2 and 3 emissions by category



The direct emissions (Scope 1) are comparable in the three Divisions (slightly less than 2 MtCO<sub>2</sub>e<sup>32</sup>), however the Mining Division stands out for its indirect emissions (Scope 2) and the emissions produced by our value chain (Scope 3).

### Total Scope 1, 2 and 3 emissions by Division (market-based)



32. MtCO<sub>2</sub>e = Millions of tons carbon dioxide equivalent.

## Strategy

302-103-1/2&3; 305-103-1/2&3

Climate change is a strategic issue for the organization and a major challenge for society. Our vision is to position Grupo México as an agent of positive change, supporting the achieving of national and international goals in terms of climate change, including the Paris Agreement and the United Nations Sustainable Development Goal number 13 Climate Action. In this regard, we are committed to reporting our corporate performance with transparency and comprehensively, meeting the expectations of our stakeholders.

Meanwhile, the company seeks to better understand the implications of climate change in our activities. A changing climate could affect our operations in different ways. Extreme hydrometeorological events could potentially damage our facilities and alter the supply of the inputs, water and energy we need for the operations, but could also cause accidents to affect the communities where we work.

The consideration of risks associated with climate change then becomes essential for our activities, as is the case of good water management and including design criteria at our sites to address the effects that climate change could have during the lifecycle of our projects.

Grupo México seeks to take on this global challenge seriously and effectively, through actions grouped into three pillars:

1. Reduce the carbon footprint of the organization.
2. Increase the resilience of the operations and our neighbor communities to the effects of climate change.
3. Align our organizational management with international best practices.



We have held three “Kids Water Week” events highlighting learning about the properties, benefits and caring for water through scientific activities.

These pillars are supported by 3 of our 2022 corporate goals, the status of which is reported following:

• Revise our risk assessment and opportunities in relation to climate change (p. 134)	In progress
• Increase the use of renewable electricity by 10% across the board. <sup>34</sup> (p. 132)	In progress
• Reduce the greenhouse gas emissions of the Mining Division by 5%. (p. 128)	In progress

Our vision is to position **Grupo México as an agent of positive change**, supporting the achievement of national and international goals in regards to **climate change**, including the Paris Agreement.

34. 18.6% of the electricity consumed by Grupo Mexico in 2019 came from renewable sources, which is well over the 10% target established initially (p.132).

Our new target for 2022 is to reach 25%



## Reducing our carbon footprint

To transition to a low-carbon operation, we need to make substantial and sustained reductions in the greenhouse gas emissions our different operations produce. This requires improving our energy efficiency in our productive processes and our logistics, substituting energy sources for others containing less carbon, or no carbon, and promoting carbon sequestration and fixing.

### Operating efficiency

**302-103; 302-3; 305-103; 305-4**

Our three divisions consume large amounts of energy due to the nature of our activities. As a result, our fuel and electricity costs account for a significant proportion of our operating expenses. Every improvement to make our processes more efficient translates into positive large-scale impacts - both for the environment and also the economic and social aspects. By consequence, managing our energy consumption efficiently has always been part of our organization's genetics, working to redesign, convert and adapt equipment, as well as improving and reorganizing to make our processes more efficient. Also, our collaborators receive ongoing training to optimize our energy usage.

For example, the Infrastructure Division's La Caridad combined cycle power plants have been supplying cleaner electricity to the Mining Division since 2016. In 2019, these plants supplied 3,185 GWh (or 11,466 TJ) of electricity to our mine operations (42% of the Division's total consumption). The emission factor for La Caridad was 18.2% lower than that for the Mexican National Grid<sup>35</sup> in 2019, representing a reduction in the volume of emissions of 293,132 tCO<sub>2</sub>e.

Continuing, the Mining Division modernized the processing complex in Nacozari, Mexico, using smelter gases to generate 53,452 MWh of energy in 2019, equal to emissions of 26,993 tCO<sub>2</sub>e<sup>36</sup>. Also, we have an energy co-generation project in Peru with a regenerative cycle condensing turbine that uses saturated steam from our Smelter.

35. 0.412 tCO<sub>2</sub>e/MWh vs. 0.505 tCO<sub>2</sub>e/MWh for the Mexican National Grid in 2019.

36. The calculations of emission reductions in Mexico is based on the emissions that would have been generated by consuming the same amount of electricity through the Mexican national grid, considering the 2019 emission factor of 0.505 tCO<sub>2</sub>e/MWh.

Thanks to the energy efficiency projects implemented, the Mining Division significantly reduced its emission intensity in 2019, to 2.57 tCO<sub>2</sub>e/tCu<sup>37</sup>. The division is working on improving this performance with the goal of reducing this intensity 5% by 2022.

In the Transportation Division, we strive to move more freight with less resources safely and efficiently. One of the most emblematic examples of the initiatives undertaken to reduce GHG emissions and to improve efficiency in our processes is the application of Automatic Engine Start Stop (AESS) technology. This system for stopped locomotives generated savings of 13.7 million liters of diesel in 2019, equal to 39,944 tCO<sub>2</sub>e<sup>38</sup>. In 2019, the Transportation Division reported a fuel performance of 3.81 liters of diesel per thousand tons-kilometer of freight transported (L/MTKB), representing a 1.3% improvement in efficiency, compared with 2018.

To continue to improve our performance in this area, the Transportation Division has developed our 2020 Program, a strategy to reduce our GHG emissions while improving the energy efficiency of our operations. This program will continue to install Trip Optimizer software in our locomotives, as well as the installation of diesel management systems and replacing locomotives with newer equipment that will continually improve our consumption control and fuel performance. These initiatives are expected to bring savings in diesel consumption of more than 42,000 m<sup>3</sup>, equivalent to avoiding the emissions of 122,923 tons of CO<sub>2</sub>e.

Since 2016, the Infrastructure Division's **La Caridad** combined cycle power plants have been supplying the Mining Division with **cleaner electricity, reducing emissions by 293,132 tCO<sub>2</sub>e in 2019.**

37. The emissions intensity is calculated based on the total operating emissions (scope 1 and 2) of the Mining Division divided by the total copper sold during the year, multiplied by the proportion that copper represents in the total volume of minerals sold during the year.

38. Calculated based on the emission factors for diesel for the Mexican railroad sector, provided by the Mexican government (SEMARNAT, 2015, Published 03/Sep/2015).



To reduce the environmental impact of our power consumption, Grupo México will continue to increase our use of renewable power in our operating processes.

The Transportation Division reduced its diesel consumption by **13.7 million liters in 2019, thanks to the Automatic Engine Start Stop (AESS) system.**

#### Efficiency indicators in the three Divisions

	2017	2018	2019	% variance 2018-2019
<b>Infrastructure Division (La Caridad)</b>				
Emission intensity (tCO <sub>2</sub> e/MWh) <sup>39</sup>	0.414	0.418	0.413	-1.2%
Energy intensity (Kcal/kWh) <sup>40</sup>	3.67	3.57	3.9	9.2%
<b>Mining Division</b>				
Energy intensity (GJ/tCu) <sup>41</sup>	44.4	43.9	41.1	-6.4%
Emission intensity (tCO <sub>2</sub> e/tCu)	4.62	4.23	2.57	-39.2%
<b>Transportation Division</b>				
Energy intensity (L/MTKB) <sup>42</sup>	3.88	3.86	3.81	-1.3%

39. Tons of carbon dioxide equivalent by Mega Watts-hour produced.

40. Kilocalories per Kilo Watt-hour produced.

41. Giga Joule per Mega Watt-hour produced.

42. Liters of diesel per millions of tons-kilometer gross of freight transported.

## Renewable electricity

305-5

The consumption of electricity from renewable sources in 2019 was 1,413 GWh (or 5,088 TJ), representing 18.6% of the total electricity consumed by Grupo México. This energy mostly came from the hydroelectric power plants that supply our operations in Peru, and reduced emissions in 2019 by 305,270 tCO<sub>2</sub>e<sup>43</sup>. The other part came from the 74 MW **El Retiro wind farm**, developed and operated by the Infrastructure Division in southern Mexico. The wind farm produced 165.9 GWh in 2019, equal to reducing the release of emissions into the atmosphere by approximately 83,804 tCO<sub>2</sub>e<sup>44</sup>. Of this production, El Retiro supplied 29.9 GWh to the Mining Division, 10.1 GWh to the Transportation Division and 1.0 GWh to the Infrastructure Division, equal to reducing the release of emissions into the atmosphere by 20,705 tCO<sub>2</sub>e in 2019.

To reduce the environmental impact of our high electricity consumption, Grupo México will continue to increase the use of renewable electricity in our operating processes, setting as a goal increasing the use of renewable electricity to 25% by 2022. We began construction on the new Fenicias wind farm in Mexico in 2019, which will supply more than 600,000 MWh of electricity per year to the operations of the Mining Division. Once in operation, the project will reduce emissions by more than 300,000 tCO<sub>2</sub>e per year.

Grupo México will continue to explore new projects to increase the use of renewable electricity in our operations in support of achieving our goals in the fight against climate change.

We reforested **more than 2,200 hectares** in 25 Mexican states in 2019, through the Grupo México Foundation program *Mexicanos Sembrando*.

43. Calculation based on the emissions that would have been generated by consuming 1,372 GWh of electricity from the Peruvian national grid, the 2019 emission factor for which was 0.2225 tCO<sub>2</sub>e/MWh.

44. The calculations of emissions reduced in Mexico is based on the emissions that would have been generated by consuming the same amount of electricity from the Mexican national grid, considering the 2019 emission factor of 0.505 tCO<sub>2</sub>e/MWh.



More than 5.8 million trees were produced at Grupo México nurseries in 2019, making us one of the largest producers of plants and trees in Mexico.

## Capturing GHG emissions

305-5

Grupo México is continually upgrading the technologies we use in our processes to maximize capturing emissions, and we have continuous emissions monitoring systems in place for emissions of NO<sub>x</sub> at fixed sources and to ensure these fall within the permitted limits.

Additionally, the **reforestation** work of the organization is supported by the Mining Division's high tree production capacity. More than 5.8 million trees were produced at Grupo México nurseries in 2019, making us one of the largest producers of trees and plants in Mexico. A portion of the production is used to reforest areas at our mine assets and another is donated to the Grupo México Foundation for large-scale volunteer tree planting projects each year. In 2019, we reforested 2,200 hectares in 25 Mexican states under the Grupo México Foundation program *Mexicanos Sembrando*.

## Summary of reduced emissions in 2019

Division	Project	Type	Consumption	Reduced emissions
Mining	Various	Renewable power (hydroelectric)	1,372 GWh	305,270 tCO2e
Grupo México	El Retiro	Renewable power (wind)	165.9 GWh	83,804 tCO2e
		Self-supply (3 Divisions)	40.9 GWh	20,654 tCO2e
		Wholesale electricity market	125.0 GWh	63,150 tCO2e
Grupo México	MGE	Clean electricity (combined cycle)	3,456 GWh	317,991 tCO2e
		Self-Supply (Mining)	3,185 GWh	293,022 tCO2e
		Wholesale electricity market	271 GWh	24,968 tCO2e
Mining	METCO	Energy efficiency (co-generation)	53,5 GWh	26,993 tCO2e
Transportation	AESS	Energy efficiency (Automatic Engine Start Stop technology)	13.7 million liters of diesel	39,944 tCO2e
<b>Total</b>				<b>774,002 tCO2e</b>

## Increase the resilience of our operations and neighbor communities to the effects of climate change

### 201-2

The second focus of our corporate strategy on climate change will make our management of the risks and opportunities associated with climate change more efficient. Because of their nature, our activities are capital intensive, highly dependent on raw materials, energy and water. It is essential to Grupo México that we protect our assets and our neighbor communities from the risks associated with climate change.

### Strengthening risk management mechanisms

Climate change represents risks and opportunities for Grupo México. Some risks are common to the three Divisions, while others are particular to a certain activity or physical location. Grupo México recognizes the importance of evaluating the implications of these risks overall, to implement actions to minimize our vulnerability and that of our stakeholders.

Firstly, Grupo México is committed to continually improving our performance in energy emissions and consumption to mitigate the risks associated with regulatory changes in the countries where we work. Also of importance to the organization is to offer products and services that are less and less carbon-intensive, to align the growing expectations of our stakeholders in this aspect. Grupo México is working to identify, analyze and mitigate the physical risks that could affect our operations and communities. Some examples of these risks are:

- More frequent and more intense extreme weather events, potentially affecting our facilities, infrastructure and supply chains.
- Increase in the water stress, because of more frequent and more severe droughts affecting the volumes of water available for our operations.
- An increase in the number of hot days, making the health and safety conditions at our underground operations difficult.

Grupo México is committed to managing risks and has set as a goal for 2022, an analysis of physical and transitional risks and opportunities associated with climate change for the organization and our operations, in keeping with the recommendations established by the Task Force on Climate-Related Financial Disclosure.

### Adaptation measures

The emergency response plans at our operations have been strengthened to include risks associated with climatological phenomena. Also, we have developed adaptation projects based on risk analyses to make our operations safer and more resilient (improving efficiency in our use of fresh water, strengthening the infrastructure to face adverse meteorological conditions, engineering works to improve the rainwater management systems to prevent uncontrolled flooding and avenues, and the ventilation systems at our underground mines have been upgraded and improved, among others).

The **Transportation Division** has action protocols in place to minimize the impact of weather phenomena at our operations, considering different scenarios from damages to the signaling systems to landslides, mudslides and floods. The Transportation Division also has a multi-year program in place to reinforce bridges, roadways and track for natural water drainage and catchment.

## Aligning our organizational management with international best practices

Society demands transparency and clarity on corporate management and performance in energy and emissions. It is very important to Grupo México to provide to our stakeholders the information they need to objectively assess our efforts to reduce our carbon footprint, making our energy usage more efficient, and increasing the resilience of the organization to the challenges associated with climate change.

This is the basis for the third pillar in the strategy being to involve the different levels of governance in Grupo México in this management, while aligning the reporting systems and organizational performance with international best practices on climate change, in keeping with the expectations of our stakeholders.

## Governance and performance evaluation

Climate change is a complex topic that is managed across the board and vertically at the corporate level. The different levels of our corporate governance structure are involved, including the Board of Directors, to ensure the risks and opportunities associated with climate change are considered in the decisions that would define the organization's strategic direction.

We have a team of specialists in sustainable development at both the corporate level and in our three divisions, the principal function of which is to facilitate actions to address climate change by all areas of the company. The Corporate Sustainable Development Department leads the design and implementation of these actions, in close collaboration with the other Divisions and with all the relevant areas in the company to ensure an integral and structured organizational management of these issues.

We also have environmental specialists at all our operations, ensuring the performance of our business units is monitored and reported properly in terms of energy and emissions. They report to the environmental directors in each country, who are charged with ensuring the optimal execution of the different measures considered at our operations. The Corporate Environmental Affairs Department leads the design and implementation of strategies and policies, evaluates the effectiveness of the management system, and makes strategic adjustments on the recommendation of the Corporate Sustainable Development Department and the Sustainable Development Committee.

Under the leadership of the President and Executive Vice-President of the Mining Division, the Sustainable Development Committee monitors the performance of our actions, defines executive adjustments, assesses the risks and opportunities associated with climate change, and prepares strategic recommendations for the Board of Directors. The Corporate Sustainable Development Department follows up on the resulting actions approved by the Sustainable Development Committee, raises awareness among the Board of Directors on the importance of the aspects of sustainable development, and presents to the Board the strategic recommendations agreed to through the Sustainable Development Committee. Lastly, the Board of Directors backs the organization's strategic direction for the short, medium and long term, and the associated investments required.

## Reporting and compliance

Grupo México has been proactive in adopting best practices in GHG inventory management and has been participating in the annual **CDP**<sup>45</sup> assessment since 2016. Additionally, Grupo México is committed to starting to align our reporting practices with the recommendations of the **TCFD**<sup>46</sup>, to communicate to our stakeholders the financial implications that climate change could have on our organization. Lastly, Grupo México prepares GHG inventories aligned with the regulatory frameworks in the countries where we operate.

In **Mexico**, the company undergoes independent auditing of our GHG emissions at operations with an annual emissions level in excess of 25,000 tCO<sub>2</sub>e (Buenavista del Cobre, Processing Complex, Lime Plant, La Caridad, Santa Barbara, Zinc Plant and Charcas Unit), in compliance with the Code to the Mexican Climate Change Law, in terms of the National Emissions Registry. In the **United States**, we report the GHG emissions for our operations with annual emissions in excess of 25,000 tCO<sub>2</sub>e (Amarillo and Hayden) to the Environmental Protection Agency.

In **Peru**, the Climate Change Law and Code, recently approved by the Ministry of the Environment at the end of 2019, do not set any specific obligations, like GHG reporting, although they do require different levels of the Peruvian government to produce directives and guidelines to include adjustment and mitigation measures in investment plans, programs and projects; and also to incorporate the effects of climate change into risk management. Our operations in Peru are working on various projects with prevention and adjustment measures, particularly in those areas where the risk levels are such that they could affect different mine components.

45. Previously known as the Carbon Disclosure Project.

46. Taskforce on Climate-Related Financial Disclosure.



Community Care Service (CCS), a channel of communication permanently open between the community and the company.

### Stakeholder engagement

Grupo México is attentive to the concerns of our stakeholders and we have developed various channels of communication to receive comments and feedback. In addition to the CCS, the corporate departments of investor relations and sustainable development are in close contact with rating agencies and investment firms, receiving feedback from them.

### Next steps

302-103; 305-103

Grupo México is developing absolute goals in reducing GHG emissions. We will incorporate the recommendations of the Taskforce on Climate-Related Financial Disclosure into our organizational practices, to continue to improve the quality and materiality of our reports for our investors.



# **EFFLUENTS AND WASTE**

## EFFLUENTS AND WASTE

### Mining Division

#### 103-1

The mining sector generates a significant quantity of waste. The comprehensive management of this waste is necessary to avoid negative impacts on the environment and human health in our neighbor communities.

Caring for the environment and compliance with environmental laws and regulations are integral to how we operate. In this regard, prevention, reuse, recycling and waste recovery are preferred and final disposal of waste is a last resort.

We also place special emphasis on the proper handling of mine waste, because if this waste is not managed correctly, it could affect the landscape, soil and vegetation, or in some cases, aquatic ecosystems and human health. We also strive to avoid structural failures in our facilities due to breaks that could affect people or properties.

#### 103-2 and 103-3

We manage the waste at all our operations in compliance with environmental regulations and making every effort to prevent impacts on the environment and public health.

The actions we have adopted to incorporate best practices in waste management are:

- Identify the waste produced.
- Identify technologies to improve the current handling.
- Waste is managed according to a hierarchy, considering prevention and reduction before treatment and final disposal.



We have adopted international best practices in handling and preventing accidents, defining obligations for all our tailings systems.



The comprehensive and sustainable management of waste at our operations combines collection methods, separation systems, recovery and use, for which we have implemented different awareness campaigns and the correct segregation of waste.

We actively strive to reduce hazardous and non-hazardous waste by applying management plans.

### Policies

Our Environmental Policy outlines our commitment to document and implement controls, goals and action programs, guaranteeing regulatory compliance and ensuring prevention, control and mitigation are integral and habitual in all our processes, functions and activities.

Particularly relevant is that Senior Management approved the General Tailings Systems Management Policy in 2019, which incorporates international best practices in handling and preventing accidents.

The Tailings Policy states priority will be given (as possible) to constructing tailings deposits using the downstream method; the use of borrow materials for the construction of screens; ongoing and independent monitoring of the performance of these and emergency preparedness and response. The policy also defines the obligation for all our tailings systems to have an Operating, Maintenance and Supervision Manual, and also a Closure Plan.

Although the Operating, Maintenance and Supervision Manuals are in development, the company ensures the greatest structural safety for the tailings deposits starting at the planning stage, as 98% of the tailings at the operations in Mexico are deposited in tailings dams constructed using the downstream method and with borrow materials; while in Peru, 100% of the tailings are deposited in dams constructed

according to the downstream method, using the coarse fraction of the solids as construction material.

Lastly, the Tailings Policy also outlines the requirements for competencies and training for the personal involved in this part of the operation, and also for internal reporting, and the obligation to have an independent budget for this purpose. The Tailings Policy also reaffirms the need to maintain constant linkage with our neighbor communities to promote transparency in information about our tailings deposits.

### POLICY: General Tailings Systems Management Policy

**Start date: 2019**

**Purpose:** Incorporate international best practices in handling and preventing accidents, establishing the obligations for all tailings systems at Grupo México operations.

**Results:** The General Tailings Systems Management Policy has been implemented and the manuals are in development.

**Achievements:** All the tailings deposits have been reviewed and an inventory generated for the existing deposits, which includes a preliminary diagnostic of their physical condition.

Our comprehensive and sustainable management of **waste combines collection methods, separation systems, recovery and use**, for which we have implemented different campaigns to raise awareness and on the correct separation of waste.



98% of the tailings at our operations in Mexico are sent to tailings dams, constructed applying the “downstream” method and with borrow materials.

Waste is classified according to local regulations in each country where we operate. We also apply environmental management criteria as appropriate in each country:

### **Mexico**

Under the Mexican Law for Comprehensive Waste Management and Prevention (Ley General para la Prevención y Gestión Integral de los Residuos) and Code, waste is divided into the following categories:

- *Solid Urban Waste (SUW).*- General household waste.
- *Waste Requiring Special Handling (WSH).*- Waste produced in the productive processes, which does not meet the criteria to be considered hazardous or solid urban waste, or which is produced by large generators of solid urban waste (individual or business that produces 10 tons or more, gross weight, of waste each year, or the equivalent in another unit of measure).
- *Hazardous Waste (HW).*- Waste that has any characteristic of corrosivity, reactivity, explosivity, toxicity, ignitability, or containing infectious agents that would make it hazardous, and also containers, packing, packaging and soils that have been contaminated from being moved to another location.
- *Metallurgical Mine Waste.*- Waste from the mining and treatment of minerals, such as tailings, waste from abandoned leaching yards, and also metallurgical waste from the smelting, refining and metal transformation processes.

Our operations in Mexico comply with the requirements established by law and we have a Management Plan in place for the Waste Requiring Special Handling, Hazardous Waste and Mine Waste produced, as required by regulation. These Management Plans minimize the generation and maximize waste recovery under criteria of environmental, technological, economic and social efficiency. They are built on the principles of shared responsibility and comprehensive management; consider a series of actions, procedures and viable means, and involve producers, importers, exporters, distributors, sellers, consumers, product users and large generators of waste, as applicable, as well as the three levels of government. These management plans lay out our comprehensive waste management, including the objectives and goals.

## United States

The Resource Conservation and Recovery Act (RCRA) regulates the handling of solid waste. Solid waste is defined as any garbage or refuse, sludge from wastewater or water supply treatment, and other discarded material resulting from industrial, commercial, mining and agricultural operations, and from community activities. Solid waste is not limited to wastes that are physically solid. Solid wastes may also be in gas or liquid state.

The principal wastes are:

- **Hazardous waste:** All our hazardous waste is handled according to the regulations set out in the Resource Conservation and Recovery Act (40 CFR 261-268). Because of its ignitability, reactivity, corrosivity and toxicity, this waste may present significant or potential threat to the public health or the environment. Section "C" of the Resource Conservation and Recovery Act outlines the legal framework for the management of hazardous waste, from generation to final disposal.
- **Industrial waste:** Waste produced by industrial activities. This waste may be hazardous or non-hazardous.
- **Universal waste:** The RCRA (40 CR 273) permits the management of waste generated from a variety of sources (batteries, pesticides, devices containing mercury and lamps). It promotes recycling and encourages reducing these wastes that are required to be disposed of in industrial landfills.
- **Mine waste:** The Solid Waste Disposal Act excludes mine waste (waste from the extraction,

mining and processing of ore deposits) from the Resource Conservation and Recovery Act. Arizona regulations (the Mine Reclamation Plan and the Aquifer Protection Permit) require this waste to be managed during the closure activities, at the end of the useful life of the mine.

- **Special waste:** Solid waste that requires special handling to protect the public health or the environment.
- **Municipal solid waste:** Garbage produced by households, schools, hospitals and businesses, disposed of in landfills.

## Peru

Legislative Decree N° 1278, which approves the Comprehensive Solid Waste Management Law, sets the rights, obligations, duties and responsibilities to maximize efficiency in the use of materials and ensures economic, sanitary and environmentally appropriate management and handling of solid waste. The primary purpose of Comprehensive Solid Waste Management is to prevent or minimize generation at origin, before any other alternative. Secondly, it gives preference to recovery and recycling material and energy from waste, including reuse, recycling, composting and co-processing, among other alternatives, provided the protection of the public health and the environment is guaranteed. Final disposal is the last resort alternative for managing solid waste.

Waste is classified as hazardous and non-hazardous according to its management. The municipal and non-municipal authorities are the public bodies in this area.

There is an Annual Training Program on solid waste management in place at our Toquepala, Cuajone and Ilo operations, which includes segregation, handling, transport, storage and final disposal. Hazardous waste that cannot be recycled or reused is properly packed and stored temporarily in central storage areas for subsequent transport for final disposal at an authorized Industrial Hazardous Waste Safety Landfill.

## Mine waste

The management of mine waste is a priority for the company, as this waste may impact the surrounding environment, depending on the characteristics of the waste.

The commitments of Grupo México in regards to managing mine waste are:

- On closing a mine operation, guarantee that the facilities are in compliance with environmental regulations for closure, applying international best practices.
- Reintegrate the final tailings disposal sites safely for the neighboring communities and ecosystems, reforesting with native species or using coverings based on natural materials.
- Minimize the environmental risks during the operation of the mine waste deposits and post-closure.
- Provide clear and transparent information about our tailings deposits and their management.

Mine waste requires proper environmental management and disposal, therefore we have particularly focused our efforts on two major activities:

### i) Tailings management

This is the solid waste produced at our primary mineral separation and concentration operations. This waste must comply with strict technical requirements in reference to site selection for final disposal, construction, classification, operation, monitoring, closure and post-closure.

Regarding the facilities for the final deposit of tailings (known as tailings dams), the stability of the structure is prioritized in the design, to ensure the tailings dams are not affected by earthquakes or extraordinary rains, among other risks. For this reason, the construction and maintenance include rainwater diversions, overflow channels (at the large dams), maintenance of freeboards according to regulation and monitoring slope stability and water quality.

Additionally, closure plans consider the natural species of the region for the reforestation of the tailings dams, where this is possible, or covering the entire area with natural local material to prevent potential lifting of particles by the winds, and also to reintegrate these areas into the natural landscape. This guarantees proper environmental management and ensures the health of local residents and the fauna are not affected.

## ii) Safe mine closures

We are clear that, on reaching the end of their useful life, our operations will require an environmentally-focused cleanup, monitoring and maintenance program to reincorporate these spaces into the existing ecosystem in a manner that is compatible with their future and harmonious use with the surrounding communities.

In this regard, we periodically calculate and adjust the closure costs for our operations, which include dismantling structures, soil cleanup and in situ final disposal of waste, among other actions.

Besides the environmental aspect, Grupo México is committed to building a sustainable social legacy for our surroundings and for the generations to come, lasting long after the end of our operation, through our Community Development Model (see the chapter on Local Communities for more information about this model). For this reason, we are committed to complying with social regulations on the closure process for our operations and to maintaining a current social baseline to assess and control the potential impacts on the areas of influence following the closure of operations.

It should be noted that Community Development is planning to implement a Sustainability Plan for the closure phase, considering a program of actions in coordination with the areas of the company involved in the process. This means implementing our Community Development Model with a Social Management Plan according to the phases of the environmental closure and post-closure plan, maintaining the Community Grievances and Expectations System, assessing the post-closure impacts on

the areas of influence on the completion of all the phases of the Sustainability Plan implemented, and transferring the social and sustainable legacy to the authorities and the local communities.

## Roles and responsibilities

Grupo México has an organizational structure that covers efficient mine waste management, with constant communication and monitoring by the different levels of the organization.

In the Mining Division, waste management is the responsibility of each operation and this is supervised by the Chief Operating Officer, and by the Office of Environmental Affairs in each country. Additionally, we regularly report to the Corporate Environmental Affairs Department and the Sustainable Development Department, who report our environmental performance to Senior Management quarterly through meetings of the Sustainable Development Committee.

## Resources

We have trained people in specialized environmental issues in relation to comprehensive waste management.

The associated financial investment is included in the Annual Budget, charged to the corresponding operation.

## Formal grievance mechanisms

Grupo México has a Community Care Service (CCS) with a detailed procedure for handling complaints from interested parties.

Additionally, the regulations in each country provide for a mechanism for the public to report grievances to the environmental authorities in the event a third party believes there has been a violation of any environmental obligation or regulation, and also permit the authorities to conduct inspection visits and, as such is the case, to impose sanctions.

Specific actions, such as processes, projects, programs and initiatives

Mexico:

Type of waste	Actions taken
Mine Waste	
	All the tailing dams have been inspected and an inventory taken of the current deposits, which includes a preliminary diagnostic of their physical condition.
	Each structure has been rated according to the maintenance they require to ensure the safety of each deposit.
	The General Tailings Systems Management Policy has been implemented and the manuals are in development.
WSH	
	This waste is recovered and separated at our operations to then send to authorized receiving centers.
Hazardous Waste	
	Actions are in place to minimize the volume of waste sent for final disposal.
	Spent lubricating oil is recycled to minimize the volume generated.
	Some empty containers that had contained hazardous chemical substances are returned to the supplier for reuse.
	Polychlorinated biphenyl waste (PCB) is sent for proper final disposal and destruction.
	Recycling actions for waste with metal content to be used in the Copper Smelter Furnaces.
Urban Solid Waste	
	Managed and sent for final disposal at authorized landfills.
	Actions have been taken to select and send scrap for recycling through authorized companies.
	PET lids are separated to support an organization that works with children with cancer.
	Wood waste is donated to neighboring communities for reuse.
Organic Waste	
	In Sonora, we produce one to five tons of worm compost each year, which is fed by green waste from the nursery and manure from nearby ranches.
	The Nueva Rosita nursery produces compost with green waste from the gardens, producing three tons of compost each year.
	The Tree Nursery in San Luis Potosi has a worm compost module to treat the sludge from the wastewater treatment plant, producing 150 tons of worm compost each year.

United States:

Type of waste	Actions taken
Mine Waste	
	The General Tailings Systems Management Policy has been implemented and the manuals are in development. Other waste is managed according to regulations, on the closure of operations.
Hazardous Waste	
	The lead flakes from the tanks at the Ray and Silver Bell mines are recycled.
	Used oil is another waste excluded from the RCRA provided this waste is properly recycled. This material is sent to authorized centers for recycling.
	Polychlorinated biphenyls: We have a program to eliminate or replace old transformers with new, more efficient ones that use liquid dielectric. Old transformers and equipment are managed according to 40 CFR 761.
	Non-recyclable waste containing heavy metals is sent to hazardous waste dumps to be microencapsulated and then deposited in landfills.
Industrial Waste and Requiring Special Handling	
	Light vehicle tires are recycled as shredded rubber to be used in different products. Tires from heavy mine equipment that have reached the end of their useful life are impounded in an authorized chamber at an overburden site, in accordance with ARS § 44-1304 (C).
	Scrap is recycled.
	Oil-contaminated waste is typically generated when there are discharges of gasoline, diesel or used oil into the environment, impacting the surroundings (soil). This waste is managed according to ACC-R18-13.

Peru:

Type of waste	Actions taken
Mine Waste	
	The General Tailings Systems Management Policy has been implemented and the manuals are in development.
	There is an Operation, Maintenance and Monitoring Manual for Tailings Facilities.
WSH	
	Because of its potential threat to health and the environment, Electrical and Electronic Device waste is classified as waste requiring special handling. Under our waste management programs, we run Electrical and Electronic Device waste collection campaigns with the community.

Type of waste	Actions taken
Hazardous waste	
	We have a treatment system for used oil from equipment maintenance and lubrication shops for energy reuse by recycling this oil in the copper smelter furnaces.
	Polychlorinated biphenyl waste is sent for proper final disposal.
	In 2015, Ilo was the first of our operations in Peru to report zero PCB inventory.
	We have physical stability studies for the stripping deposits and those for leaching material and smelter sludge, which are updated periodically.
	Waste with metal content (copper and bronze) is recycled in the copper smelter furnaces.
SUW	
	We run beach cleanup campaigns to reduce the urban waste, in coordination with the authorities and the community.
	Infrastructure improvements have been implemented and work has been done on the central solid waste storage areas.
	Purchase of mechanized equipment to manage this waste more efficiently, promoting recycling and reuse.
Organic Waste	
	We have biological composting processes to transform organic waste matter from our mine camps into compost, which is used as a fertilizer for forestations and green spaces. A portion of the compost is donated to our neighbor communities.

## Water discharge by quality and destination

306-1

Mexico	Total volume water discharged	Destination	Water quality and treatment method	Was water reused by another organization?
Scheduled	8.473 ML	Las Calabazas Stream	DBO 5.68, SST 25, Primary Treatment	No
	36.051 ML	Unnamed Stream	DBO 1.98, SST 10, Secondary Treatment	No
	13.006 ML	Unnamed Stream	DBO 5.46, SST 15, Secondary Treatment	No
	1.713 ML	Las Calabazas Stream	DBO 22.9, SST 24, Primary Treatment	No

Peru	Total volume water discharged	Destination	Water quality and treatment method	Was water reused by another organization?
Scheduled	792.9 ML	Pacific Ocean	<b>Water Quality:</b> The discharges comply with the maximum permitted for discharges of liquid effluents from mining and processing activities (DS N° 010-2010-MINAM)	No
	574.8 ML	Pacific Ocean	<b>Treatment Method:</b> Water treatment plant for activated sludge from domestic wastewater	No

### Mexico

The standard for the quality parameters is set by Official Mexican Standard NOM-001-SEMARNAT-1996. The analytical results are prepared by labs accredited by the Entidad Mexicana de Acreditación (EMA) and certified by the CONAGUA (water board), who provide the sampling, preservation and chain of custody procedures.

### United States

Asarco's facilities are considered to be zero discharge, which means they do not discharge wastewater into receiving bodies.

It should be noted that the Amarillo operation holds a permit to discharge rainwater, which was not used in 2019.

### Peru

There are permitted limits to control the water quality of the treated wastewater discharged into receiv-

ing bodies. The parameters or substances of concern are defined in Decree N° 010-2010-MINAM: *Approval of Permitted Limits for liquid effluent discharges from Mining Activities*, established by the Peruvian Ministry of the Environment and which are comparable to international standards.

*The National Standards of Environmental Quality for water*, established in Decree N° 004-2017-MINAM, apply to water bodies in their natural state, establishing the level of concentration of physical, chemical and biological parameters or substances present in the water, which represent no significant risk to public health or to the environment.

This standard considers four categories of water and 14 subcategories, each of which presents variation in the parameters and their reference values. These categories are:

Category 1: Residential and recreational

Category 2: Extraction, farming and other coastal and onshore activities

Category 3: Irrigation for crops and water for animal consumption

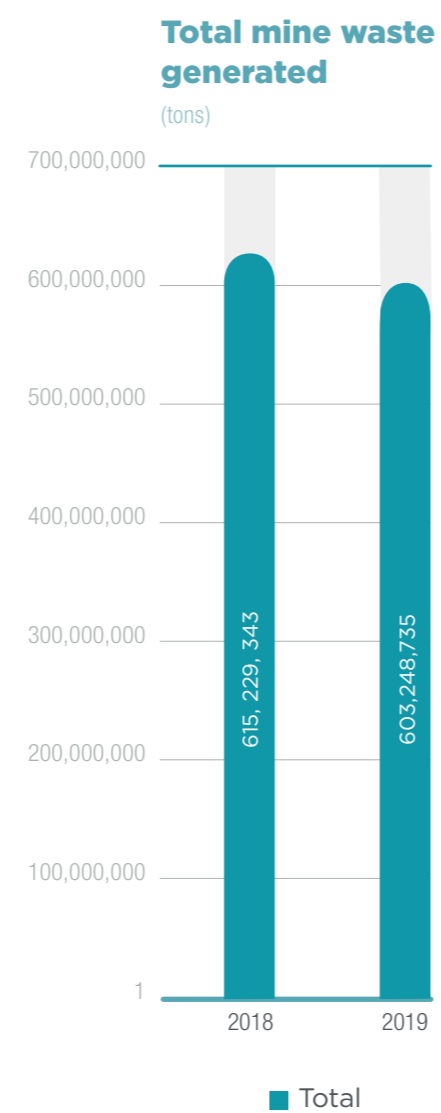
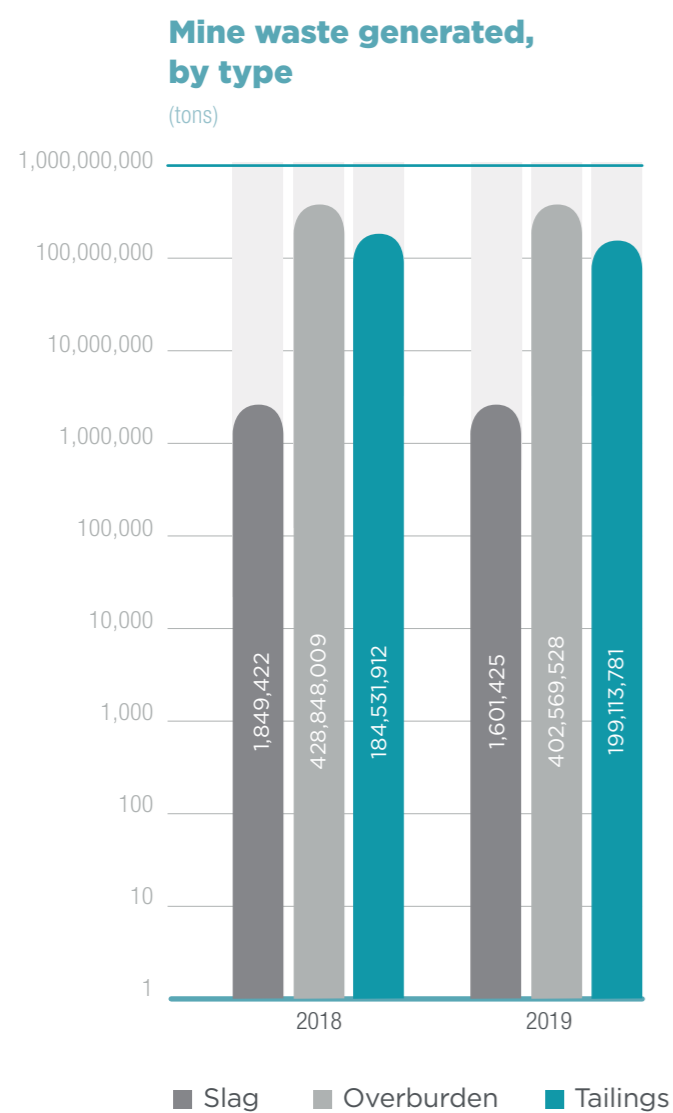
Category 4: Preservation of the aquatic environment

The laws, regulations and public policy are based on the National Standards of Environmental Quality, which are required to be taken into consideration in the design and application of all environmental management instruments, including the Environmental Impact Studies.

### Total amounts of rock, overburden and sludge that pose a potential risk

MM3

There was a 1.94% reduction in the total mine waste generated in 2019:

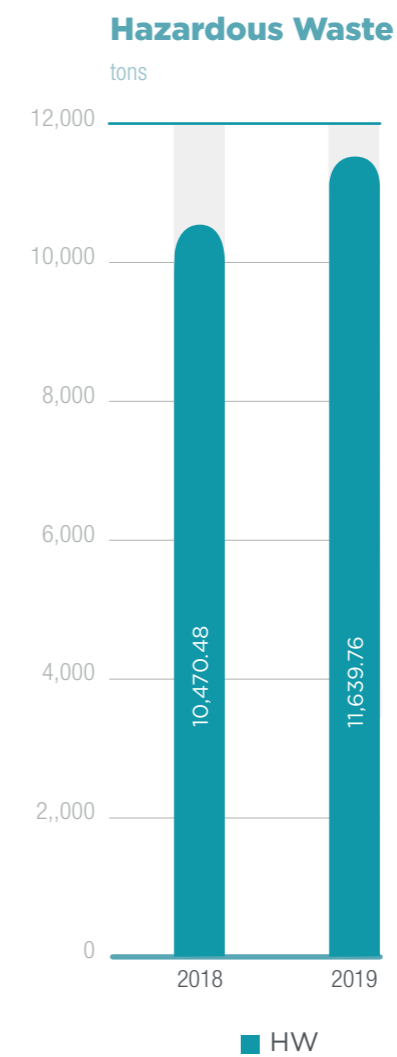


### Waste by type and disposal method

306-2

Total weight of the **hazardous waste**, detailed by disposal method:

Tons of Hazardous Waste	Mexico	United States	Peru
Reuse	NA	NA	2,265.42
Recycling	2,701.26	20.81	NA
Composting	None	None	None
Recovery, including energy recovery	43.20	0.68	3,510.28
Incineration (burning waste)	0.32	3.03	7.56
Deep well injection	NA	NA	NA
Landfill	343.23	187.27	NA
In situ storage	97.77	NA	NA
Other	2,458.94	NA	NA
<b>TOTAL: 11,639.76</b>	<b>5,644.71</b>	<b>211.79</b>	<b>5,783.26</b>



Total weight of the **non-hazardous waste**, detailed by disposal method:

Tons Non-Hazardous Waste	Mexico	United States	Peru
Reuse	375.14	7,396.82	NA
Recycling	11,632.49	2,723.95	18,613.50
Composting	78.26		280.12
Recovery, including energy recovery	NA	49.40	252.70
Incineration (burning waste)	NA	54.30	NA
Deep well injection	NA	NA	NA
Landfill	266.37	NA	9,623.40
In situ storage	NA	157.85	NA
Other	4,097.17	5.4	NA
<b>TOTAL: 55,606.96</b>	<b>16,449.44</b>	<b>10,387.72</b>	<b>28,769.80</b>

## Significant spills<sup>2</sup>

306-3

		Mexico	Peru	United States	AMC
<b>Location of the spill</b>	Inside our operations	6	0	7	13
	Outside our operations	2	0	0	2
<b>Volume of the spill (m<sup>3</sup>)</b>	Chemical substance spills	3.92	0.00	19.33	23.25
	Fuel spills	1.60	0.00	0.00	1.60
	Other	20.0	0.00	21.20	41.20
	<b>Total</b>	<b>25.52</b>	<b>0.00</b>	<b>40.53</b>	<b>66.05</b>
<b>Material spilled</b>	Fuel spills	5	0	0	5
	Chemical substance spills	2	0	4	6
	Other	1	0	3	4
	<b>Total</b>	<b>8</b>	<b>0</b>	<b>7</b>	<b>15</b>

## Impacts of the significant spills

### Mexico

Although there is no fixed definition for the term, we consider significant spill to be any over 1 m<sup>3</sup>, as this is the volume the environmental authorities consider in federal legislation as the parameter for being required to report and, as such is the case, take remediation or final waste disposal actions.

- Operations at the San Martin Mine were suspended from July 2007 to September 2018, and during this time, a third party outside of the company held possession of the property. As a result, all the components of the production chain required maintenance and repair. These activities were authorized by the SEMARNAT.

On May 8, 2019, there was a failure in the valve during the startup testing of one of the machines used for the hydraulic fill at the mine, which resulted in a discharge of water with tailings sediment that had accumulated in the pipes.

On May 11, the PROFEPA conducted an inspection visit and on May 17, we received the formal notice dated May 15, 2019, and on August 12, 2019, the PROFEPA issued a decision to impose a fine of \$1,013,880.00 pesos and the obligation to carry out a Soil Remediation Program. The company appealed the decision before the Mexican Federal Court of Administrative Justice, judgment on which is pending.

- An incident occurred on July 9, 2019, at the Guaymas Port, operated by Mexicana de Cobre, S.A. de C.V., while the pipes at the facility were being cleaned. Approximately three cubic meters of sulfuric acid spilled from Tank No. 19 into the sea in the industrial port zone.

Following the incident, the PROFEPA conducted a first inspection visit on July 10, where they determined that immediate measures had been taken to contain the released material and made no reference to any negative impacts on the environment because of the incident. On Friday, July 19, the PROFEPA visited the site to conduct a second inspection, ordering a partial and temporary closure of only the sulfuric acid storage and conduction system, having failed to produce an Environmental Impact Permit for these specific works or activities.



It is important to note that these works and activities began operations in 1979, meaning prior to the 1988 Ecological Balance and Environmental Protection Law, therefore the company did not believe this permit was required. In fact, the SEMARNAT granted the Operating Permit for this operation on September 25, 1995, which expressly covers the operation of a freight port to store sulfuric acid, specifically including the machinery installed. Furthermore, this facility received the PROFEPA Clean Industry Certification in 2009 for the first time, receiving renewals four subsequent times (each certificate is valid for two years).

On September 13, 2019, the company received formal notice of an administrative proceeding, reiterating the safety measure. The company challenged the closure of the sulfuric acid storage and conduction system. This litigation remains open.

We will continue to provide to the environmental authority the documentation required of us and we hope to resolve the proceeding by mutual agreement with the environmental authority, in the best interest of the environment.

It should be noted that the company contracted a third party to prepare a study of the “Conditions and characteristics of the sulfuric acid spill site at the Guaymas Port in Sonora”, which found that the variations in the concentrations of the parameters analyzed fell within the typical ranges for seawater, and that no alterations of the water quality were observed at neither the site of the spill nor up to two kilometers away.

Despite this, with the authorization of the PROFEPA, the company conducted maintenance activities at the sulfuric acid facility and to ensure no future event of a similar nature, the freight operation was redesigned and the valve control equipment was replaced. We also have an Emergency Plan in place

with specific procedures for handling emergencies involving sulfuric acid spills and there is an Emergency Response Training Program, and a Maintenance Program for dams, pumps, pipes, valves, cranes and sulfuric acid storage tanks.

### United States

The definition of a significant spill is based on the reporting limits set by the Environmental Protection Agency (EPA) for certain compounds considered hazardous. The EPA provides a list of all the compounds classified as “of concern” and which have reporting limits.

- In January 2019, there was a failure in the underground line at the Amarillo operation, which caused the secondary retaining line to fill, spilling 10 gallons of process water. The area was cleaned and the retaining line has been out of use since then.
- In July 2019, a secondary containment valve at the Amarillo operation failed and 5,000 gallons of sulfuric acid were spilled. The spill primarily affected the underground rainwater drainage system. We carried out cleanup actions, which included sending the affected soil for final disposal with an authorized company. The mild steel line associated with the spill was replaced with a stainless steel line. The secondary containment valve processes were reviewed and our personnel in this area received additional training.
- There were two spills of refined liquid at the Ray operation in 2019. Both were intercepted by a concrete lined canal situated adjacent to the Mineral Creek stream. This canal was designed and built to contain this type of spill. However, a very insignificant amount (2 gallons) filtered through cracks in the joints in the concrete and reached the stream. We are currently working with the Arizona Department of Environmental Quality (ADEQ) to define the next steps.

## Peru

Under international guidelines, a significant spill is any where the volume is greater than 55 gallons. There were no significant spills at our operations in Peru in 2019.

## Transport of Hazardous Waste

### 306-4

We verify that our providers of the service of management, transport and final disposal have the permits required to transport this waste. This requirement is established contractually.

## Materials used by weight or volume

### 301-1

The Mining Division uses hundreds of inputs in our operations, the principal materials being fuel, electricity and water. We use natural gas as a fuel for boilers and generators, and for the metallurgical processes at our processing operations, diesel and gasoline as fuel for the mine equipment. We use water, mill balls and some chemicals in our ore processing.

Aware of these large amounts, we concentrate our efforts on reducing these inputs through energy and cost saving measures.

The following materials were used at the AMC business units in 2019:

Material	Quantity	Unit
Natural gas	159,457,812	m <sup>3</sup>
Fuels <sup>4</sup>	503,620,294	l
Electricity	7,575,055,144	kwh
Fresh water <sup>5</sup>	141,709	m <sup>3</sup>
Mill balls	88,561,057	kg
Explosives	211,740,423	kg

<sup>4</sup>Includes diesel, gasoline and other energy products.

<sup>5</sup>Includes surface, ground and municipal (third party) water

## Infrastructure Division

### 103-1

The Grupo México Infrastructure Division recognizes the importance of ecosystems and also the environmental services they provide for the communities where we operate. We are also conscious of the growing demand to preserve the environment and prevent the generation of waste. For this reason, the Infrastructure Division promotes the prevention and comprehensive management of urban solid waste, waste requiring special handling and hazardous waste, complying with all federal and local laws, codes and regulations. We adhere to the international standards that regulate waste management and apply the principles of circular economy, preserving and improving the natural capital. We optimize the use of resources and encourage efficiency in our process system, applying a management system that is based on identifying hazards, mitigating risks and preventing waste enabling us to act early to reduce negative impacts on the environment.

As a result of our company processes and the services we offer our customers, most of the waste produced by the Infrastructure Division is sewer sludge associated with our wastewater treatment processes at our production sites. It should be noted that this sludge does not become waste as it is passed through a stabilization process and the organic matter serves as compost.

Another waste present in our processes is lubricant oils, which are managed according to the classification for hazardous waste provided in the Comprehensive Hazardous Waste Prevention and Management Law (LGPGIR). However, to promote the principles of circular economy, we seek out strategic partners that have technological options to generate heat energy from this waste to prevent it from being disposed of by confinement.

A topic of great concern to our stakeholders is protecting the oceans and marine ecosystems. In this context, our activities on the oil rigs in the Bay of Campeche are

regulated under the strictest standards of quality and safety to prevent any type of spill of petrochemical substances into the sea. We received International Oil Pollution Prevention certification in 2019, which confirms that our processes and installations are in perfect conditions and free of waste that could damage the marine ecosystem.

## Organizational management

### 103-2

The comprehensive waste management of the Infrastructure Division is based on four pillars:

1. *Waste storage and classification.* We ensure our waste is stored and classified correctly, including solid urban waste, hazardous waste and waste requiring special handling. This process is carried out according to applicable regulations as each operation has designated containers for each type of waste to prevent mixing.
2. *Prevention and control of spills.* We check that our waste storage is sufficient to prevent any type of spill that could reach bodies of water or the soil. All our temporary confinement sites are in strict compliance with the regulations set by the Comprehensive Waste Management and Prevention Law and code.
3. *We maximize* the use of materials and strive to make our waste sustainable in adherence of the principles of circular economy. We focus on preventing waste, identifying options for recycling, compost and reuse of the materials or products, so that they don't become waste.
4. *Environmental culture and training.* The engagement of our collaborators to prevent waste, identify risks and mitigate the impacts on ecosystems is a pillar of the operation, for which our collaborators receive frequent training to learn about the risks, responding to emergencies and applying action protocols in the event of an environmental emergency.

### Roles and Responsibilities

Our senior management is committed to waste prevention and comprehensive management, and also to preventing spills. In this regard, we prepare a quarterly report to review the indicators and develop strategies that promote contaminant-free environments.

There are environmental leaders at the more than 20 operating sites of the Infrastructure Division. They oversee environmental compliance to protect the ecosystems, identify threats, control risks and train employees to promote and continually raise awareness of our environmental culture and policy.

The environmental managers of the lines of business design strategies to improve comprehensive waste management, audit environmental compliance in the workplace and define optimal processes for the operation and the environment.

The Internal Audit department verifies the procedures are followed according to the protocol, or notifies the process supervisors and senior management about the implications/risks of the finding.

## Evaluation mechanisms

### 103-3

The Infrastructure Division's evaluation mechanisms for effluents and waste focus on efficient processes and legal compliance throughout the productive chain. The indicators are reported monthly within the company, effluents are reported quarterly, and annually through the Annual Report of Operations or other appropriate legal instruments. In parallel, and as part of our internal controls, Internal Audit visits our operating sites to identify areas of opportunity and verify legal compliance.

### Specific actions, such as processes, projects, programs and initiatives

The guiding principle in handling waste at the Infrastructure Division is to reduce waste and promote productive chains to recover that generated, for which:

- We separate all waste by volume and by classification to avoid contamination.
- Waste requiring special handling is recovered and may be recycled, co-processed or reused according to applicable regulations.
- We encourage sustainable and responsible purchasing, avoiding generating large volumes of waste.
- We reduce the consumption of PET using refillable containers and the PET waste produced is sent for recycling.
- We run environmental campaigns to improve the environmental conditions at the worksites and in our communities.
- Lastly, waste that cannot be recycled or reused, representing the minority of the waste produced, is sent to authorized landfills.

## Waste by type and disposal method

### 306-2

The Infrastructure Division operated more than 20 productive and service sites during 2019, all of which were in compliance with federal and state laws to prevent damage to ecosystems. The waste was managed comprehensively, encouraging reduction, separation and recycling, or any other method to enable waste recovery.

We filed all disclosures required with the relevant authorities, as well as our waste management plans.

Most of the waste we generate is classified as “Non-hazardous organic”, produced by the effluent treatment plants, followed by hazardous waste that can potentially be recovered and sent for co-processing, mostly represented by oils from vehicles and heavy machinery.

In the particular case of the Infrastructure Division, the amount of waste generated depends on the number of projects and their size, although despite these variants, we promote best practices to reduce and manage waste at our operations and sites.

Tons of waste	Non-hazardous	Hazardous	Total
Composting	5,279		5,279
Incineration		387	8.8
Recycling	436.86	157.5	823.8
Recovery		184.66	157.5
Dump	41.58		41.58
Confinement		3.99	3.99
Total	5,757	557.3	6,315

The Infrastructure Division is continually working to **control our operations, reduce waste and prevent any type of spill** that would threaten ecosystems or our neighbor communities.

## Significant spills

### 306-3

Under Mexican law, the Comprehensive Waste Management and Prevention Law and code defines a significant spill as being equal to a volume of more than 1m<sup>3</sup> of any product that would affect the soil, biota, water, etc., and is required to be reported to the federal authorities for prompt response and according to technical remediation processes.

In this context, the Infrastructure Division did not report any spill greater than 1m<sup>3</sup> in 2019, therefore there was also no unusual process required to be reported to the regulatory agencies.

The Infrastructure Division is constantly striving to control operations, reducing waste and preventing any type of spill that would put at risk the integrity of the ecosystems or our neighbor communities.

## Materials used by weight or volume

### 301-1

The Infrastructure Division uses hundreds of different inputs to supply the operation of the six different lines of business.

In summary, the most consumed materials are reported here, focusing on energy products, such as diesel, used primarily by the construction company in heavy machinery while for light trucks, gasoline is the most used input. Meanwhile, the rigs in the Bay of Campeche use ocean diesel.

Meanwhile, the La Caridad combined cycle power plant requires a total 684 million cubic meters of natural gas per year to produce electricity. Another important input for the plant is 23% aluminum chlorohydrate, chemical used in processing.

The next group of high consumption materials involves those used in construction, including PG76-22 grade modified asphalt and overburden, which is highly used in civil works.

The total volumes consumed in 2019 by material were:

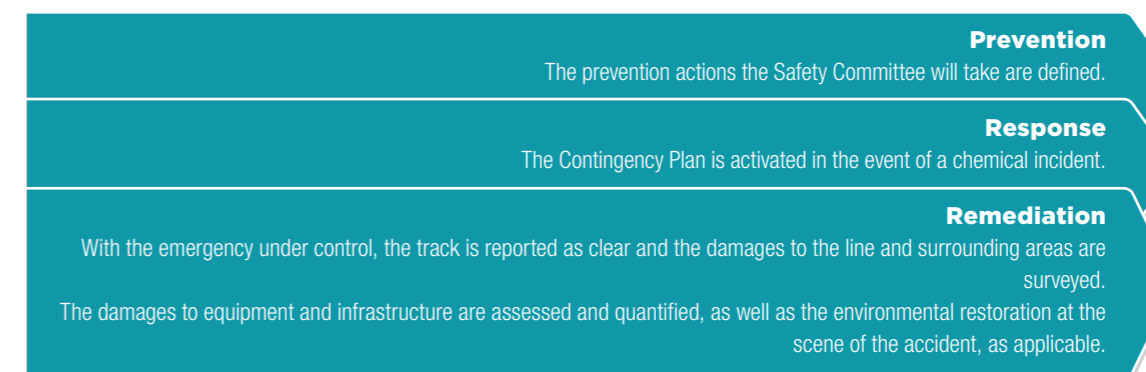
	Unit / Division / Region	2019 Materials	Quantity	Unit
1	Construction Highways	DIESEL	13,701,680.65	L
2	Construction	PG76-22 GRADE MODIFIED ASPHALT	6,126,130	KG
3	Drilling	Ocean Diesel	1,980,011	L
4	Energy	23% Aluminum chlorohydrate	1,090,000	KG
5	Energy	Natural gas	684,165,732	M <sup>3</sup>
6	Construction Highways	High-octane gasoline	985,814.34	L
7	Construction	Overburden	640,232	M <sup>3</sup>

## Transportation Division

Waste is not a material topic for the Transportation Division and we do not report performance indicators in this area. However, we manage waste as a priority in environmental compliance. Each year, we generate hazardous and non-hazardous waste, but in all our operations we are considered small generators by the environmental authorities. We manage our hazardous waste in strict adherence of applicable regulations during handling, storage and sending for recycling or final disposal. The Transportation Division does not generate waste requiring special handling.

We have a set of mechanisms and procedures in place to prevent and take action in emergency situations involving hazardous chemical products related to the operation. There are Safety Committees on Transporting Hazardous Materials in nine Mexican states, involving firefighters, civil protection and local industrial sectors. These committees conduct chemical drills to develop response protocols to protect the first responders (fire or civil protection) to accidents involving hazardous materials.

The Transportation Division has a protocol in place in the event of chemical spills, structured as follows:



## Significant spills

### 306-3

We did not receive any significant environmental fine or non-monetary sanction in 2019. The company did receive a sanction on a derailment that had occurred in previous years. There was a non-material spill in 2019, involving 6,434 liters of diesel from a locomotive on a train that had derailed because of a landslide. This incident resulted in no material environmental impact and the accident did not affect human health. Our environmental management team presented at the location and duly notified the relevant authorities. Decision from the environmental authorities on actions required is pending.



**BIODIVERSITY**

Ite Bay in Peru is home to more than 120 species of birds.



## BIODIVERSITY

### Mining Division

103-1

Biodiversity refers to living organisms and groups of populations and communities of these organisms, which are essential to ensure the functioning of the ecosystems. Protecting biodiversity is in everyone's interest, citizens, communities, the authorities and businesses, and is in keeping with goal 15 of the United Nations Sustainable Development Goals to sustainably manage the forests, combat desertification and revert the loss of biodiversity on our planet.

Mining can have direct and indirect effects on ecosystems and biodiversity. These effects on biodiversity can potentially occur during the whole of the lifecycle of a mine project, involving not only mining companies but also their suppliers.

It is important to prevent damage to the environment while mitigating the potential impacts through appropriate prevention and remediation actions. We also ensure the environmental services are restored when the mine operations have ended.

### Organizational management

103-2

Grupo México strives to guarantee the conservation of the biodiversity at our mines and to preserve the ecosystems through caring for the flora and fauna.

In addition to ensuring compliance with the obligations we assume under our environmental permits and authorizations to protect and preserve the biodiversity at all our operations, we have programs to address and protect various species in the countries where we operate.

Our actions seek to:

- Prevent, mitigate and offset the environmental impacts from our operations through different measures, including among others, the rescue and relocation of flora and fauna, the recovery and conservation of soils, and also the restoration and reforestation of ecosystems.
- Develop landscape recovery and environmental restoration plans on the closure of our operations.

A harmonious co-existence with protected natural areas and zones with biodiversity value is important to Grupo México and our management programs support us in achieving our conservation goals.

The biodiversity goals of Grupo México are:

- Monitor and report corporate performance on biodiversity management uniformly, effectively and with transparency.
- Set corporate goals that promote ongoing improvement.
- Guarantee the conservation of the biodiversity throughout the lifecycle of our operations and through our flora and fauna reproduction and propagation programs.
- Identify threatened species of special relevance to the ecosystem where our operations are located and for which we have protection programs.
- Conduct environmental education actions.

These commitments are reflected in the 2022 corporate goals:

<b>Revise the biodiversity baseline analysis for all Mining Division business units.</b>	In progress	We are preparing gap analyses at all operations based on the Good Practices Guide on Biodiversity of the International Council on Mining and Metals to determine the next steps.
<b>Guarantee our tree production at 5 million per year and join efforts with reforestation organizations and entities.</b>	Achieved	In 2019, the company's nurseries produced more than 5.8 million trees. During the year, we reforested 207.35 hectares at our operations (principally in Sonora and Coahuila), and 2,200 hectares in 25 Mexican states under the Grupo México Foundation program <i>Mexicanos Sembrando</i> .

**Roles and Responsibilities**

Grupo México has an organizational structure to address biodiversity management efficiently at the local level.

In the Mining Division, each operation is responsible for its own biodiversity management, which is supervised by the Environmental Affairs Department in each country, reporting regularly to the Corporate Environmental Affairs Department, and to the Sustainable Development Department.

Additionally, our environmental performance is reported quarterly to the Sustainable Development Committee.

**Specific actions, such as processes, projects, programs and initiatives**

The alteration of land and its vegetation to develop our projects could have negative impacts on the habitats of the flora and fauna, which provide refuge and food for the local fauna.

As a result, the species are identified at the sites where projects will be developed to then collect (flora) or capture (fauna) specimens, which are relocated to another site that is ecologically similar to assure their survival. This measure to preserve the wild-life species is a useful tool to maintain the local biodiversity. We rescue and relocate flora and fauna that could potentially be impacted at all our operations.

We also look at the strategic location of our sites, installing adequate infrastructure for the fauna to have access to water. We monitor specimens and install bird deterrents at sites that could represent a risk to the fauna.

Our environmental compensation actions include plant production for reforestation with native species in areas previously authorized by the environmental authorities. These activities are covered by our environmental permits and guarantee that the biodiversity of the ecosystems is preserved and that the erosion of the soils, the deterioration of the water quality or the reduction of water collection are mitigated.

- Prevent, mitigate and offset the environmental impacts from our operations through different measures, including among others, the rescue and relocation of specimens of flora and fauna, the recovery and conservation of soils, and the restoration and reforestation of ecosystems.
- Contribute to the preservation of germplasm through the operation of environmental management units for flora. Contribute to the wild fauna.



## Mexico

Our production goal is at least five million trees for donation each year. Through the Grupo México Foundation *Mexicanos Sembrando* program, we reforested 2,200 hectares in 104 municipalities in 25 Mexican states (2,128,001 trees) in 2019.

In Mexico, our germplasm conservation actions include collecting seeds of endemic and native species in areas near our nurseries, designated as “seedbeds”. These areas are authorized by the SEMARNAT as “parent tree” areas in excellent conditions and free of pests and diseases.

The species of seeds collected are: *Ayacahuite pine*, *Yellow pine*, *Apache pine*, *Arizona pine*, *oaks* (*Quercus rugosa*, *Quercus rojo*, *Quercus emory*, *Quercus arizonica*) *Mesquite* (*Prosopis glandulosa*, *Prosopis velutina*), *Black brush acacia* (*Acacia rigidula*), *Texas sage* (*Leucophyllum frutescens*), lemonade berry, hopbush, yuca, fishbone fern, strawberry tree, desert coral, sotol, alligator juniper, manzanita, dandelion, cypress, citron and others. An average 850 kg of these seeds are collected each year and the seeds are stored in cold chambers and planted for germination. Once the plants reach the proper size, they are used to restore areas that have been degraded or impacted, and also in areas near our operations to contribute to the recovery of the native vegetation and conservation of the forest ecosystems in the region.

### PROJECT: Restoration and Plant Production

**Goal:** Produce plants to reforest with native species to guarantee the biodiversity of the ecosystems is conserved and that the soil erosion, deterioration of the water quality or reduced water collection is mitigated.

**Results:** The production from the six tree nurseries and greenhouses is mostly allocated for donation to reforesting and rehabilitating ecosystems. More than five million trees were produced in 2019.

**Achievements:** Restoration actions were taken in 2019, including soil conservation works, water collection, and reforesting 256.31 hectares.



The production from our six tree nurseries and greenhouses is mostly allocated for donation to reforesting and rehabilitating ecosystems.

## PROJECT: Buenavista del Cobre Environmental Management Unit (EMU)

Our contributions to wildlife in Mexico are made, primarily, through the operation of the Buenavista del Cobre Management Unit for Wildlife Conservation (EMU).

**Start date: 2012**

**Goal:** The conservation, management, reproduction, repopulation and release of the species at the facility, which include a jaguar (*Panthera onca*), two black bears (*Ursus americanus*), eight Mexican gray wolves (*Canis lupus baileyi*), and 51 wild turkeys (*Meleagris gallopavo mexicana*), all registered with the Department of Wildlife.

**Results:** Of note are our activities as part of the Mexico-US Binational Program for the Recovery of the Mexican Gray Wolf under the North American Free Trade Agreement Commission for Environmental Cooperation, program that is led in Mexico by the SEMARNAT and in which Buenavista del Cobre has participated since 2014.

The main goals of the program include having several specimens under the care of the participating institutions. These animals are assessed by specialists to determine when they are ready to be released into the wild. The specimens are cared for by the institutions participating in the program for the time the authority, the SEMARNAT in this case, determines.

Thanks to the efforts of everyone involved in the recovery of the Mexican gray wolf, this species in Mexico was downgraded in November 2019 from the category *Probably extinct in the wild* to the category *Endangered species*, according to the most recent NOM-059-SEMARNAT-2010, which identifies the species or populations of wild flora and fauna at risk in Mexico.

**Achievements:** Under the Mexico-US Binational Mexican Gray Wolf Recovery Program, 57% of the 44 wolves that have been released in Mexico were from the Buenavista del Cobre EMU.

A total of 23 Mexican gray wolf pups have been born at our facility.

## United States

Our actions to contribute to the flora and fauna are:

- The Mission Mine in Arizona collaborated with the US Fish and Wildlife Service and the US Army Corps of Engineers on studies to guarantee that the endangered species *cactus ferruginous pygmy owl* -CFPO- (*Glaucidium brasilianum cactorum*) would not be affected. The conservation area was relocated and the new conservation area was registered June 21, 2019.
- The Silver Bell Mine, together with the Bureau of Land Management, the Arizona Game and Fish Department, the Arizona Desert Bighorn Sheep Society and other private landowners, relocated bighorn sheep to less populated areas with similar characteristics. This program has been successful, with confirmation that none of the bighorn sheep tagged and relocated from the surrounding area of the Silver Bell Mine to the public lands have died or moved to another place. We continue to support this effort.

## Peru

Studies are conducted at our operations at least every five years, to identify the flora and fauna (biology and hydrobiology) in the area of influence at each operation. Specimens of species are collected and their approximate quantity recorded, as well as their biodiversity indices and richness in the different categories. We also adhere to the guides and requirements of the Ministry of the Environment applicable to the Environmental Impact Studies. These studies aid in defining the actions to contribute to the wild flora and fauna.

At Toquepala, there is artificial forestation with approximately six hectares of eucalyptus trees, which are sustained with the natural water springs in the area. This successful program, known as the Ite Wetlands, is detailed in the section on Environmental restoration on the close of operations below.

There is artificial forestation at our Cuajone Mine, with species of pines and eucalyptus on approximately 70 hectares, which were introduced to generate green spaces. The irrigation is supplied by wastewater generated at the wastewater treatment plants at the Villa Botiflaca and Villa Cuajone camps. As the Cuajone population has decreased naturally, we are planning to introduce new species that require less water, to ensure the sustainability of the forestation over time.

- **Develop landscape recovery and environmental restoration plans on the closure of our operations**

In Mexico, we have successfully completed two closures of operations: the former smelter in Monterrey and, more recently, the Copper Plant in San Luis Potosi.

At the San Luis Potosi Copper Plant, in addition to carrying out land remediation actions and for the final disposal of waste, we undertook an ambitious project to re-incorporate urban spaces. This resulted in Parque Bicentenario (Bicentennial Park), built on 6.3 hectares for the local community. This public space forms part of a system of recreational green spaces, bike paths, running tracks and bodies of water.

*Parque Bicentenario* is currently caring for and protecting 54 tree species, with the most important being: milkweeds, golden barrel cactus, giant barrel cactus (*Mammillaria longimama*, *Ferocactus latispinus* and *Mammillaria densispina*), candelilla, four o'clock flower, prickly pear, old man cactus, bilberry cactus, fence post cactus, hesperaloe, sotol, yuca (*Yucca carerosana* and *Yucca filifera*) and zamandoque.

In the United States, our operations hold US Army Corps of Engineers 404 permits to develop mining projects. To receive these permits, our operations are required to have an assessment of the biological impacts, an assessment of the impacts on endangered species and a proposal to mitigate impacts, including closure actions. There is also a Natural Resources Damage Restoration and Assessment Program,

the regulations for which are part of the Comprehensive Environmental Response, Compensation and Liability Act or CERCLA. A restoration plan was prepared accordingly, which includes a strategy to replace, restore or acquire the equivalent of the natural resources impacted by the former operations, including the following actions:

- i) Increase the number of emerging wetland habitats along the San Pedro River (including encouraging the colonization of beavers and depositing forest debris, such as tree trunks, barriers, etc.) to increase the irrigation to the floodplain.
- ii) Plant native river species (like poplars and willows) in a portion of the farming fields, in the southwest area.

The company carried out mitigation actions to compensate impacts in the lower San Pedro River. The conservation actions included preventing cattle from entering the site, restricting logging and restricting access by all-terrain vehicles, to improve the river habitat values. The company worked together with the Engineer Corps and the Arizona Game and Fish Department in the recovery planning and the implementation of conservation actions.

In **Peru**, there is a regulatory framework to protect and preserve the biological diversity and natural resources. The Peruvian Environmental and Natural Resources Code sets out measures for the control and preservation of the environment, as well as the natural resources and diversity of species. Meanwhile, the Natural Protected Areas Law (Law 26834) protects these areas to ensure the continuity of the ecological and evolution processes, guarantee ecological diversity, prevent the extinction of wild flora and fauna species, establishing management plans for protection, monitoring, follow-up and repopulation of native species, as well as the recovery, regeneration and restoration of habitats. Also, the Biodiversity Conservation and Sustainability Law (Law 26839) prioritizes conservation actions for ecosystems, species and genus, with preference given to those of high ecological, economic, social and cultural

value, as well as the prevention of contamination and degradation of the land and water ecosystems, promoting conservation and management practices, and also the rehabilitation and restoration of the degraded ecosystems.

It should be noted that the Peruvian Mining Law and code are aligned with the Environmental Law, ensuring that mining activities properly identify and manage all the environmental aspects, factors and risks associated with the operation that could impact the environment.

The regulations for Mine Closure Plans require that mining companies implement different environmental, technical and legal measures to restore the areas used, impacted or disturbed by the activities during the construction and operation of the mine project, so that once rehabilitated, these areas present the characteristics of an ecosystem that is compatible with a healthy and appropriate environment for the development of life, the ecosystem and the preservation of the landscape.

### PROJECT: Ite Wetlands

**Start date:** Mid-1990's

**Goal:** Create artificial wetlands on a former tailings dam over 1,600 hectares, after treating the area, forming parcels of land with plant species (reeds, cattails) and shallow bodies of water. .

**Results:** The zone is, today, known as the Ite Wetlands and has become an important ecosystem for migrating and resident birds as the largest coastal wetland in Peru and with the greatest wealth and abundance of water birds, recording more than 127 species of birds and providing an important habitat in the region. The project welcomes visits from students, academics, bird watchers and the general public.

**Achievements:** The bird statistics would indicate an increase in the nesting and sighting of birds, with around 152 resident and migratory species.

BirdLife International classifies the Ite Wetlands as an Important Bird and Biodiversity Area.

It is also recognized as one of the seven wonders of the Tacna region.

The Ite Wetlands  
are the second  
largest in South  
America



## Formal grievance mechanisms

### 103-2

Grupo México has a Community Care Service (CCS) that operates a detailed procedure for responding to complaints received from interested parties.

## Evaluation mechanisms

### 103-3

Grupo México uses management and performance indicators that are reviewed through internal audits. The indicators to evaluate the plant production and reforestation include:

- Number of plants produced
- Area reforested

Once the plants have been planted, their survival is monitored and reports are prepared for the environmental authorities (usually quarterly or every six months). After the third year of written reports, the environmental authorities conduct an inspection before releasing the reforested site (as this is the timeframe for plants to reach approximately two meters in height and no longer require help to survive).

### United States

Under the Clean Water Act, our operations are required to have US Army Corps of Engineers Section 404 permits to develop mine projects. This process includes an assessment of the biological impacts, an assessment of potential impacts on endangered species, and a proposal is prepared to mitigate these impacts. The environmental authority verifies compliance.

### Peru

The Wildlife and Forestry Law (Law N° 29763) provides measures for the management of forest and other ecosystems with wild vegetation and their components, involving the active participation of all parties concerned, including the indigenous and farming communities, at both the individual and collective levels, respecting the right of the indigenous peoples to free and informed advance consultation.

This law tasks the Peruvian National Wildlife and Forestry Service with sustainably managing the wildlife and forestry heritage in Peru.

Although the climate limits the self-sustainability of the forestation at our operations (limited rainfall throughout the year), there are water treatment plants that make the water from the camps viable for forestation, after treatment.

We have an annual program for tree species, as well as a program to replant species according to the guides prepared by the environment authority, in addition to ongoing environmental monitoring programs.

Our participative environmental monitoring involves representatives from the community and the authorities to verify compliance with environmental regulations in the areas of influence of our operations. Independent of this, all operations and their environmental areas of influence are supervised regularly by the state environmental auditors.

The Toquepala operation has areas of forestation, totaling six hectares, despite the limitations of the terrain and availability of water (desert climate). There is also a tree nursery and composting plant here, focusing on the production of species that are native to the desert zone.

The compost produced at our composting plants is used as a soil nutrient in our reforestation and replanting projects, as well as being donated to the nearby communities.

The operation at Cuajone has forestation areas totaling 70 hectares and composting plants on lands within the mine operation.

## Operational sites owned, leased or managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas

### 304-1

	Mexico		United States	
	Buenavista del Cobre	La Caridad	Hayden & Ray	Silver Bell
<b>Geographic location</b>	Cananea, Sonora	Nacozari de Garcia, Sonora	Gila and Pinal counties in Arizona	Pima County, approximately 35 miles northwest of Tucson, Arizona
<b>Above and below ground lands owned, leased or managed by the organization</b>	Above ground activity on lands owned by the company.	Above ground activity on lands owned by the company.	The lands are owned by Hayden	Silver Bell has 4,396.74 acres and 119,39.17 acres adjacent to the Ironwood Forest National Monument. 3,072 leased acres are no longer actively mined and 553 leased acres are active.
<b>Position in terms of the protected area or high biodiversity value outside the protected area</b>	Situated in AICA 126 and partially in Priority Land Sites 474, 563, 595 and 564, and also in the priority land region Cananea-San Pedro 041, the priority water region (Asuncion River sub-basin and San Pedro and Santa Cruz River sub-basin; while the voluntarily designated conservation area, Sierra la Mariquita, is located less than 1.5 km from the property limit.	Assigned a value “medium”, as the facilities are not situated inside any natural protected area. However, according to the General Ecological Ordering of Land Program, our site is situated in priority land region 44 (Bavispe - El Tigre) and priority water region 16 (Yaqui River - Basaseachi Waterfall).	Situated in areas that feed the basin flowing to the Gila River. The river flows north to the US and joins the Gila River near the city of Kearny. The mitigation areas called PZ Ranch 1 and 2 are located, respectively, 4 miles to the south of the town of Hayden and to the north along the San Pedro River.	28.01 km <sup>2</sup> of IUCN Category V - Protected landscape - This is a protected area because of its ecological, biological and cultural importance, which needs to be cared for to protect and preserve the area.
<b>Type of operation (office, manufacturing, production or extraction)</b>	Mining and metals processing.	Mining and metals processing.	Last chance rainwater reservoirs.	Open pit mine and SX/EW leaching operations on land owned by Silver Bell and mine claims on leased lands.
<b>Size of the center of operations in km<sup>2</sup></b>	420 km <sup>2</sup>	88.09 km <sup>2</sup>	0.14 km <sup>2</sup>	13.33 km <sup>2</sup> of pit area and SX/EW.
<b>Biodiversity value, classified according to the characteristics of the protected area or the area of high biodiversity value outside the protected area (land, ocean or freshwater ecosystems)</b>	Land ecosystems	Land ecosystems	Land ecosystems	Land ecosystems
<b>Biodiversity value, classified as protected (on lists with categories of protected areas, like the IUCN, the Ramsar Convention and local legislation).</b>	Some species found in the mine area are listed in the categories described in NOM-059-SEMARNAT-2010, and also on the IUCN Red List.	Some species found in the mine area are listed in the categories described in NOM-059-SEMARNAT-2010, and also on the IUCN Red List.	The operations are situated inside IUCN habitat categories Critical (Hayden) and Endangered (Ray).	The operations are situated inside IUCN category V Protected Landscape.

The operations in **Peru** are not situated in or adjacent to protected areas or areas of high biodiversity value, given the following:

- The geographic location of the Toquepala operation has desert-like climate conditions. Surrounding the site are extensive lands that mostly have no potential for farming use, as there is no water or vegetation. The Quebrada Honda zone, near Toquepala and where the tailings dam is located, is characterized as being extremely arid as it forms part of the Atacama Desert (the most arid desert on Earth).
- The operation in Cuajone is located in the south of the Western Andean region, with the rainfall expected of a semi-desert to semiarid climate. The Torata River passes near our properties and operation. However, our operations do not use this water nor are there any industrial discharges into the river. There is an ongoing participative environmental monitoring program, which confirms that the river water maintains its qualities upstream and downstream from our operation, complying with the Environmental Quality Standards for water for farming use. Although there are native species of flora and fauna in the area around our operations, they are not in protected areas or areas of high biodiversity value.
- In Ilo, all our facilities are situated in the coastal zone, Moquegua Region. The whole of this coastal zone forms part of the Atacama Desert, therefore the annual rainfall in some years is nearly zero. The Osmore River crosses the province, feeds the Ilo Valley and the population to empty into the sea. The Ilo mine complex facilities, besides being far from the river and the town, do not use water from the river, as we have had desalination plants here since 1960, when the copper smelter began operations, which cover the requirements of the operation, administrative areas and camps. The facilities are also not located in or near areas of high biodiversity value or which have any level or category of protection.

## Significant impacts of activities, products and services on biodiversity

### 304-2

- a) The nature of the direct and indirect significant impacts on biodiversity in terms of one or more of the following points:

	Mexico	United States
<b>Construction or use of manufacturing plants, mines and infrastructure for transportation</b>	An environmental impact assessment is prepared for all mine projects, including actions to maintain the biodiversity and preserve the ecosystems, establishing mitigation, compensation and restoration measures to reduce, eliminate or offset the environmental effects. These include the relocation of flora and fauna, and deterrent and rehabilitation systems for sites at the end of the useful life of the facilities, among others.	Considered in the Impact Assessment Review, and also the 404 permit issued by the US Army Corps of Engineers. Actions are defined to maintain the biodiversity and preserve the ecosystems, establishing mitigation, compensation and restoration measures to reduce, eliminate or offset the environmental effects.
<b>Introduction of substances not occurring naturally in a habitat</b>	NA	NA
<b>Introduction of invasive species, pests and pathogens</b>	NA	NA
<b>Reduction of species</b>	Rescue, relocation and monitoring activities to prevent the reduction of species, using known animal paths and creating biological corridors.	Clearing of vegetation or sediment and disturbance limited to the non-mating seasons in critical habitat areas to avoid the reduction of species at our Ray and Hayden mines. Also, a third party prepares a biological study to guarantee there are no affected species in the area when the mine is in operation.
<b>Habitat transformation</b>	There are mitigation measures for all our mine activities, which elevate the level of resilience to maintain the integrity of the biodiversity.	Mitigation or offsetting measures are defined according to the specific requirements and needs to maintain the biodiversity and the local ecosystems. Alternative restoration projects are identified, assessing the environmental impact of the alternatives and when required, a restoration project is selected to offset or mitigate potential effects on the local habitat.
<b>Changes in the ecological processes outside the natural variance range (such as salinity or changes in the groundwater level)</b>	The natural geochemical cycles and ecological processes are not modified.	The natural geochemical cycles and ecological processes are not modified.

	Mexico	United States
<b>Relevant species identified</b>	The principal species of flora at the Buenavista del Cobre operation are: old man cactus ( <i>Mammillaria spp.</i> ), fishbone fern ( <i>Dasyliirion wheeleri</i> ), agave ( <i>Agave parryi</i> ). The principal species of fauna are: gray fox ( <i>Urocyon cinereoargenteus</i> ), diamond-back rattlesnake ( <i>Crotalus atrox</i> ), black tail rattlesnake ( <i>Crotalus molossus</i> ), Mexican pine snake ( <i>Pituophis catenifer</i> ) and coati ( <i>Nasua narica</i> ). At the La Caridad mine, the principal species of fauna are: golden eagle ( <i>Aquila chrysaetos</i> ), zone-tailed hawk ( <i>Buteo albonotatus</i> ), red-tailed hawk ( <i>Buteo jamaicensis</i> ), horned owl ( <i>Bubo virginianus</i> ), black tail rattlesnake ( <i>Crotalus molossus</i> ).	On the land adjacent to the Hayden operation: the southwest willow flycatcher and the yellow-beak cuckoo. Ray: southwest willow flycatcher and the yellow-beak cuckoo. Silver Bell: lesser long-nosed bat. Mission: Pima pineapple cactus.
<b>Dimension of the zones that have been impacted</b>	A total of 7.77 km <sup>2</sup> have been identified in Mexico as impacted as a result of the expansion activities at Buenavista del Cobre and La Caridad in 2019.	Hayden: 0.14 km <sup>2</sup>
<b>Duration of the impacts</b>	The impacts are considered temporary because of the mitigation, offsetting, restoration and reforestation measures, ensuring a site with the conditions necessary to develop species of flora and fauna.	The impacts are considered temporary because of the mitigation, offsetting, restoration and reforestation measures, ensuring a site with the conditions necessary to develop species of flora and fauna.
<b>Reversibility or irreversibility of the impacts</b>	The impacts are reversible. A series of mitigation, offsetting, restoration and reforestation measures ensure the reversibility.	The impacts are reversible as they are offset with the mitigation measures.

In **Peru**, these disclosures of impacts on biodiversity are considered *not applicable*, as there were no significant impacts on biodiversity reported in 2019, meaning that could have significantly affected the integrity of an ecosystem or substantially changed their ecological characteristics. There were also no significant impacts in terms of intensity, dimension, magnitude or long term that could represent a threat to the habitat or the population levels of some key or particular species that would make a habitat important or unsustainable.

b) Significant positive and negative direct and indirect impacts in reference to the following:

## Habitats protected or restored

304-3

### Mexico

Restoration actions were taken in Mexico in 2019, including soil conservation works, water collection and the reforestation of 256.31 hectares::

Operation	Name of the habitat protected or restored	Total area reforested	Total specimens reforested	Monitoring of the sites reforested	Reforestation technique implemented	Reforestation-related actions
Buenavista del Cobre Mine Complex	Areas near Copper Concentrator Plant II. Areas near the South Power Substation. EMU Zone 3. Internal area SX/EW Plant III and La Bombita Creek. Areas reforested near Gate 10. Ranchito Los Elias, Road to Bypass New Workshops.	102 hectares	46,209 native specimens reforested	Three auxiliary irrigations at the sites reforested. Transplants are monitored at the start of each season.	Staggered	8,982 linear meters of irrigation channels to increase the filtration of water and moisture retention at the sites reforested.
La Caridad and Mine Complex	Tailings dams 1, 2, 3. Raised retaining wall tailings dam 7 (Chivera). Bella Union, Cachuly and Francisca Norte. Two leaching heaps, three for overburden (300 hectares). Haulage road from the Pilares mine to the La Caridad mine. Raised retaining wall at tailings dam II.	61.03 hectares	9,323 native species reforested	Four auxiliary irrigations for the specimens reforested. Transplants are monitored at the start of each season. The soil retained and the rainwater collection are also monitored.	Staggered	27 dams built to control sludge according to head-to-toe criteria. The rainwater collection works are: 3,892 filtration ditches, 2 m long, 50 cm wide and 50 cm deep; five water irrigation channels and 10,983 individual terraces.
Nueva Rosita	La Conquista Pit La Lavadora Pit La Conquista West Pit La Caballada Pit	93.28 hectares	80,070 native specimens reforested and planting of native grass seeds on 57 hectares	Seven auxiliary irrigations in the reforested sites. Transplants are monitored at the start of each season. Also, retained soil and rainwater collection are monitored.	Staggered	120 check dams were built to prevent erosion and the formation of gullies at the pits. 5,000 linear meters of irrigation channels-ditches were constructed for moisture retention and 80,070 individual terraces were created in the reforestation, to retain more moisture and ensure a higher survival rate, and 2,000 linear meters of brush vegetation.

### United States

The mine operations have the US Army Corps of Engineers 404 permit for mining.

The permit requires ASARCO to have:

- A biological impact assessment
- An assessment of the impacts on endangered species
- A plan to mitigate these impacts

This will form part of the terms of reference that are being prepared for a Comprehensive Biodiversity Program.

The most noteworthy mitigation and habitat restoration actions include the PZ Ranch 1 and PZ Ranch 2, located along the San Pedro River. At the PZ Ranch 1 site, we built mesquite forests and wetlands areas to offset the impact from the Elder Gulch tailings. The habitat has been completed and we have transferred the management of the mitigation zone to Arizona Game and Fish. At the PZ Ranch2 site, we created mesquite, poplar and willow forests. We also supported the preservation and improvement of wetlands and river habitats as a compensation measure for the impacts generated by the Mineral Creek canal at the Ray mine.

### Peru

Our most noteworthy habitat restoration measure is the Ite Wetlands Program.

The tailings from the Toquepala (1960) and Cuajone (1976) copper concentrators used to be discharged into the Ite Bay, on the coast of the Tacna region. An extensive beach with tailings sand was formed from this discharge.

In 1994, construction began on the Quebrada Honda Tailings Dam as an environmental project to store the tailings from the Toquepala and Cuajone concentrators on solid ground, preventing the tailings from being deposited at the edges of the sea. The dam began its operations in 1996 and the discharge of tailings to the edges of the Ite Sea stopped.



Since the mid-1990s, we have been implementing mitigation measures to transform the zone into an area that is environmentally compatible with the surroundings. After a long and slow process, which began with the formation of small parcels of bioremediation, a natural biological succession came together with the species that had best adapted to the conditions of the area. Nature, meanwhile, was an exceptional contributor to this process.

The environmental measures have been consolidated gradually and over time, transforming the area into an extensive series of green spaces and lagoons, forming a new ecosystem, known today at the Ite Wetlands. This new habitat covers an area of approximately 1,600 hectares, with grasslands, shallow bodies of water, floating plants, cattails, bulrushes and other plant species, and has become a nesting ground for thousands of resident and migratory birds from different latitudes.

The Ite Wetlands are a positive example of environmental improvement actions and, because of the characteristics, this site has been chosen as one of the seven wonders of the Tacna region. Both the regional government and the district municipality of Ite have classified the Ite Wetlands as an area of regional and local importance. A museum has been built here, as well as lookout points to appreciate the beauty of this ecosystem, receiving visitors from Peru and around the world. Tourists are captivated by the spectacular landscape and the wide variety of birds that flock here: flamingos, cranes, gulls, turtledoves, varieties of ducks, cormorants, kestrels and an extensive diversity of birds that live in the wetlands. We also frequently receive visits from school groups, birdwatchers and bird researchers.

Recent statistics show an increase in nesting, recording around 152<sup>1</sup> resident and migratory species.

The Ite Wetlands have also been recognized by BirdLife International as an Important Bird and Biodiversity Area<sup>2</sup>.

<sup>1</sup> <https://www.serfor.gob.pe/noticias/negocios-sostenibles/por-prim-vez-se-registra-avistamiento-de-gallaretta-gigante-en-los-humedales-de-ite-en-tacna>

<sup>2</sup> <http://www.birdlife.org/>

## IUCN Red List species and national conservation list species with habitats in areas affected by operations

304-4

### IUCN Red List classification

Category of risk	Mexico	United States
Near threatened	7	1
Data deficient	3	3
Endangered	2	0
Low concern	446	24
Uncategorized	47	0
Vulnerable	5	2
<b>Total</b>	<b>510</b>	<b>30</b>

### National Lists

	NOM-059-SEMARNAT-2010	National List
Category of risk	Mexico	United States
Threatened	44	44
In danger of extinction	14	22
Probably extinct in the wild	4	No information
Uncategorized	389	Migratory birds 39
Subject to special protection	59	65
<b>Total</b>	<b>510</b>	<b>170</b>

### Peru

The operations are not located in nor do they affect habitats with any protected or threatened species. However, according to the information from the biological monitoring, occasionally the following IUCN listed species are sighted in areas near our operations and traffic routes.

Under the Forestry Law and code, the Peruvian National Wildlife and Forestry Service issues specific guidelines on forestry management, determining the particular characteristics for each region, the specifics of each ecosystem and the forestry zoning corresponding. We are planning to implement forestry management plans based on the recommendations of the Service, starting with the operation in Cujone.

**IUCN Red List**

Category of risk	Peru
Data Deficient (DD)	N.A.
Low Concern (LC)	Southern vizcacha ( <i>Lagidium viscacia</i> ) Andean fox ( <i>Lycalopex culpaeus</i> )
Near Threatened (NT)	Lizard ( <i>Liolaemus signifer</i> ) Bat ( <i>Platalina genovensium</i> )
Vulnerable (VU)	Peruvian frog ( <i>Telmatobius peruvianus</i> )
Endangered (EN)	Andean mountain cat ( <i>Leopardus jacobitus</i> )
Critical Risk (CR)	None on record
Extinct in the Wild (EW)	None on record
Totally Extinct (EX)	None on record

**Number and percentage of the total sites identified requiring biodiversity management plans according to the criteria, and the number (percentage) of sites with plans in place**

**MM2**

**Mexico**

Our biodiversity management is based on environmental impact assessments and change of zoning for forested lands, and also the reports submitted to the environmental authority.

A series of actions are established at all our operations for the environmental impact assessment, adhering to the hierarchy of mitigation of impacts on biodiversity. These actions include rescuing flora and fauna in the areas impacted, relocation to appropriate sites to increase their probability of survival and integration into the ecosystems,

works planning that gives consideration to fauna passing through, deterrent systems in areas that would pose a threat to their survival, monitoring fauna, and works to guarantee access to water, among others.

Additionally, the Forestry Sustainable Development Law provides for compensation measures, particularly in the case of areas where vegetation has been removed, requiring plant production and replanting in zones where there are restoration works at ratios that are never less than three to one. These obligations are established in the Change of Zoning for Forested Land permits, which are enforced by the environmental authorities.

Independent of this, a gap analysis is planned with the existing information to identify what is missing according to the best practices for the sector, to then develop a Biodiversity Program.

**United States**

The relevant regulations are:

- Endangered Species Act (ESA)
- Marine Mammals Protection Act (MMPA)
- Wild Birds Conservation Act (WBCA)
- Multinational and species conservation acts
- Lacey Act
- Pelly Amendment
- Migratory Birds Agreement

The Endangered Species Act (ESA) of 1973 is a law of vital importance, providing a framework to conserve and protect endangered or threatened species and their habitats.

Section 10 of the Endangered Species Act references a wide range of activities that would impact endangered or threatened plants and animals, as well as the habitats on which they depend. With some exceptions, this law prohibits activities that would

affect these protected species and their habitats, unless the US Fish and Wildlife Service or the National Marine Fish Service have issued a permit.

Areas under the jurisdiction of the Bureau of Land Management (BLM) are also required to comply with these codes. Similarly, the Water Act protects river ecosystems, supporting the maintaining of the biodiversity and ecological integrity.

All our operations are in compliance with applicable codes and regulations, which is verified through supervision and evaluation by the environmental agencies. One example is the Pima Pineapple Cactus Restriction Agreement with the US Fish and Wildlife Service at the Mission Mine. Another example is the creation of mesquite forests and wetlands to offset the impact from the tailings at Elder Gulch at the Ray Mine, creating this habitat in coordination with Arizona Game and Fish (which took over management of the zone on the completion of the mitigation work).

At PZ Ranch, approximately 911.2 acres (3.7 km<sup>2</sup>) will be protected in perpetuity through a conservation easement to offset the impacts on US waterways, authorized in two Corps of Engineers Section 404 permits issued to Ray. These lands include approximately 129 acres (0.52 km<sup>2</sup>) of a planted mesquite forest, approximately two acres (0.008 km<sup>2</sup>) to the northwest of the mesquite forest, approximately seven acres (0.03 km<sup>2</sup>) of wetlands created and approximately 116 acres (0.47 km<sup>2</sup>) of buffer lands in PZ-1 to offset the impacts on the

waterways associated with the Elder Gulch project, and approximately 658.2 acres (2.66 km<sup>2</sup>) of forest with poplars, willows and mesquite including the San Pedro riverbed in PZ-2 to offset the impacts associated with the Mineral Creek Project.

Thirty-five acres (0.14 km<sup>2</sup>) of wetlands have been created at Big Box Dam, with open waters and river vegetation as mitigation measures for the construction of the Mineral Creek canal.

Independent of this, a gap analysis will be prepared from the existing information to identify what is missing according to the best practices in the sector to then prepare a Biodiversity Program.

### Peru

Our operations are not located in nor do they affect habitats with any protected or threatened species. However, according to the information from the biological monitoring in areas near the operations and traffic routes, occasionally the following IUCN List species are present.

Under the Forestry Law and code, the Peruvian National Wildlife and Forestry Service issues specific guidelines on forestry management, determining the particular characteristics for each region, the specifics of each ecosystem and the forest zoning corresponding. We are planning to implement forestry management plans based on the recommendations of the Service, starting with the operation at Cuajone.

A medium-term goal for the Ite Wetlands is for the area to be classified as a Private Conservation Area, in accordance with the guidelines set by the Peruvian Ministry of the Environment.

## Infrastructure Division

### 103-1

The Infrastructure Division recognizes that flora and fauna play a fundamental role in the fight against climate change, sustaining the ecosystems through recharging bodies of water, climate regulation and pollination, among others. In this regard, we actively promote environmental responsibility and compliance under national and international standards.

Specifically, our impacts on biodiversity are associated with the construction processes for our power plants, wind farms and highways and are regulated by the environmental impact statements issued by the environmental authorities. These impacts are mitigated or offset through flora and fauna rescue programs or the reforestation program.

In this context, the services, projects and operations of the Infrastructure Division are mostly located outside of natural protected areas according to Mexican regulation and international Ramsar agreements, with the exception of the offices of Perforadora México in Ciudad del Carmen, Campeche, where the area was declared protected after the start of operations and where only administrative activities are conducted.

### 103-2

#### Roles and Responsibilities

Senior management designs business strategies that promote sustainable environments for communities, the environment and to ensure the continuity of the business. They also draft policies that define the guidelines for interaction between the ecosystems and the business, define the goals of the organization in protecting the environment and monitor these goals, and monitor the environmental management system to guarantee the environmental and reputational compliance of the company.

The environmental managers for each line of business are familiar with the environmental legislation applicable and also define the actions needed to achieve the goals of the organization at our operational sites. They educate personnel to improve the environmental culture, attend to visits from the federal, state and municipal authorities,

verify legal compliance, propose strategies to improve environmental management and international good practices, and conduct environmental audits.

Environmental coordinators and supervisors ensure the work at our sites is carried out according to the actions defined at the management and senior management level. They comply with environmental regulations, correct any actions or personnel that could cause damage to the environment and carry out specific procedures and tasks to protect the flora and fauna.

Internal Audit confirms observance of company and outside policies and procedures and reports any findings of non-compliance or which could affect the company's reputation to senior management.

The organization adheres to the company and outside policies, communicates risks identified in the field and which could affect the continuity of the operations in environmental terms, and adopts and fosters an environmental culture in the workplace and in the community.

**Specific actions, such as processes, projects, programs and initiatives**

Our operations are in adherence of the company's environmental management system procedures, the goal of which is to protect the environment. Our coordinated efforts to achieve this goal involve different areas, including operations, maintenance and safety.

The La Caridad Power Plant in Nacoziari, Sonora, reforested 1,283 native species as part of our ecosystem and community conservation and improvement actions. The project began five years ago and focuses on maintaining a survival rate above 85% to keep the ecosystems alive.

Plants found in the reforested areas	
Species	Total
<i>Pinus engelmannii</i>	313
<i>Quercus emoryi</i>	772
<i>Quercus arizonica</i>	48
<i>Quercus hypoleucoides</i>	8
<i>Juniperus coahuilensis</i>	41
<i>Prosopis velutina</i>	52
<i>Agave angustifolia</i>	2
<i>Stenocereus thurberi</i>	5
<i>Mammillaria grahamii</i> <sup>1</sup>	
<i>Dasyliirion wheeleri</i>	39
<i>Melia azedarach</i>	2
<b>Total individual specimens</b>	<b>1283</b>

In parallel, the power plant has a botanical garden with native species, which serves as a recreational site for employees and the community. This site became an educational center in 2019, receiving elementary school groups who learn from local biology experts about the natural richness of the site and how to care for it.

Another project developed at La Caridad protects the local wild fauna, specifically the white-tailed deer (*Odocoileus virginianus*). This project asks all plant personnel to not hunt, to report unusual activity and to improve the culture of environmental protection to generate healthy ecosystems.

**Formal grievance mechanisms**

Grupo México has a Community Care Service (CCS) that operates a detailed procedure for responding to complaints received from interested parties.

## Evaluation mechanisms

### 103-3

Grupo México uses management and performance indicators that are reviewed through internal audits. These indicators include the following components:

- Areas reforested
- Number and type of plants produced
- Protected animal species

## Operational sites owned, leased or managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas

### 304-1

The Infrastructure Division has more than 20 operational sites, most of which are located outside of natural protected areas or with limited development of natural species.

La Caridad power plant: This land ecosystem is situated in the West Sierra Madre, 20 km from the Sierra de Ajos, Buenos Aires and Purica natural protected areas, and classified as a national forest reserve.

Carmen Sector, Ciudad del Carmen, Campeche: The site of our subsidiary Perforadora México is located near the Laguna de Terminos protected wildlife area. It is important to note that we only conduct administrative activities at this site.

Highways: Located in the state of Guanajuato, outside the cities of Leon, Silao and Irapuato. The sites are mostly situated in farming areas, where the zoning has been changed. The closest natural protected area is 30 km away and is the Cerro del Cubilete. The highway and bypass projects do not invade or affect protected areas.

Our Construction subsidiary attends to the needs of our clients throughout Mexico. Generally, it is the client who is required to present the environmental impact statements and to implement the resulting assessment and decision. We provide all the technical support our clients may need to meet compliance and protect the environment.

## Significant impacts of activities, products and services on biodiversity

### 304-2

No damage to ecosystems caused by the land or marine activities of the Infrastructure Division was reported in 2019. We met our environmental commitments with the authorities, and we voluntarily developed initiatives to care for species of flora and fauna to improve the ecosystems.

In the case of marine ecosystems, our oil rigs are International Oil Pollution Prevention certified, which validates the integrity of the facilities to prevent damages such as leaks or the contamination of wastewater, resulting in negative effects on biodiversity.

## Habitats protected or restored

### 304-3

Our efforts to improve ecosystems in 2019 focused on the restoration of three sites:

- Combined cycle power plant, Nacozari, Sonora: 600 oak trees were planted around the plant. This initiative is voluntary and arose from our concern and commitment to the ecosystems and the community.

Work continues on our reforestation project. This project was started five years ago under the Environmental Impact Statement that was prepared for the construction of the plant. We have an inventory of 1,283 specimens of 11 different native species, which receive constant care. Their survival rate is 95%.

In parallel, we have a third project that is working on the reproduction of walnut and peach trees using agroforestry techniques. The goal is to improve the ecosystems in the area and to reuse water from the industrial process, as these species are watered with treated water, the quality of which meets strict compliance with Mexican regulations in terms of contaminants.

- Carmen Sector, Ciudad del Carmen, Campeche: We are working on a Coastal Dune Soil Conservation and Reforestation Program in a migratory bird nesting area in Playa Norte. This program is based on the decision on the Environmental Impact Statement for the maintenance of the Sonora Jack-Up Rig and will reforest two hectares. Fifty specimens of the *Coccoloba uvifera*, also known as sea grape, were planted in 2019 and the indicators show a 97% survival rate.

It is important to note that this species has a high biodiversity value as an endemic species. With this project, our subsidiary Perforadora México is meeting its commitment to the environment and the community, in collaboration with the city of Ciudad del Carmen and the Mexican Department of Natural Resources.

- Silao Bypass, Silao, Guanajuato: Under the reforestation program laid out in the Environmental Impact Assessment, 9,408 specimens of the following species were planted:

Species	Common Name	Quantity
Prosopis laevigata	Mesquite	3,103
Eysenhardtia polystachya	Kidneywood	1,223
Agave ferox	Agave	1,035
Bursera schlechtendallii	Copal	2,633
Opuntia streptacantha	Prickly pear	756
Ipomoea murucoides	Morning glory	658
<b>Total</b>		<b>9,408</b>

The reforestation at this site was carried out along the right of way of the Bypass, over 8.2 km using the staggered method, planting 2,822 trees to achieve a survival rate of 85%, as required under the environmental assessment. There is a monitoring program in place to achieve this goal.

### IUCN Red List species and national conservation list species with habitats in areas affected by operations

#### 304-4

Most of the species protected by the Infrastructure Division are classified as low concern, with only two species that could present a higher vulnerability.

Category of risk	NOM-059-SEMARNAT-2010 Mexico
Critically endangered	0
Endangered	0
Vulnerable	2
Nearly threatened	6
Low concern	10
<b>Total</b>	<b>18</b>

## Transportation Division

### 103-1, 103-2, 103-3, 304-1, 304-2

GMXT acquired the operation of the railroad in 1998 under concession. Almost all of the railroad network in Mexico was built in the 19th and 20th centuries, with the most significant impacts on biodiversity and high ecological value zones occurring during that time. The concessionaires have built no new rail lines since 1998, as stipulated in Mexican law as the concessionaires do not have this authority, which means there has been no growth in the network.

The matrix of material topics for the railroad transportation industry issued by the Sustainability Accounting Standards Board (SASB) do not mark biodiversity as a material topic for the sector as a whole, therefore impacts on biodiversity are not a material topic for the Grupo México Transportation Division.

Unlike other industries, railroad freight transportation does not have the same disruptive consequences on the ecosystems through which we pass. Although the construction of infrastructure works is subject to environmental impact assessments, in the context of railroad transportation in Mexico, the disruption to ecosystems is minimal after the rail lines have been installed.

This is because freight trains do not reach excessive speeds and the flow and frequency of trains on the tracks is also not such that it would affect the movements of fauna in the regions where our railroad operates. Unlike the highways and other roadways, crossings for fauna or other mechanisms to permit the free movement of animals are not necessary as the speed and frequency of trains do not represent a risk.

Regarding effects on soil, vegetation and water systems, the railroad infrastructure currently represents no significant impact as the ecosystems and the regions where the railroad network was built were impacted more than 100 years ago.

There is no vegetation in the right of way as this is required to be cleared and controlled for safety reasons. The soil that could have formed naturally in the right of way was impacted a long time ago with the construction of the rail lines when the soil that had been there was stripped. In terms of water, the railroad infrastructure has filtering systems that have been in place for a hundred years, which means the rains can filter through to the subsoil without affecting the water cycle.

The environmental management of the Transportation Division is based on the principle of precaution and when the need arises to increase the capacity of the system with the construction of sidings, new yards or double tracks, the company prepares the environmental studies necessary for these works. However, after completing these studies, we do not often submit environmental impact statements as the impacts of the right of way occurred prior to the concession. Added to this, the growth of our operations and the capacity of our system are usually connected to urban centers where there are no significant impacts on biodiversity.

Taking this into account, the operations of the Grupo México Transportation Division have no negative impacts on the environmental services of the ecosystems. The GMXT railroad network does not negatively affect the environmental services of support, supply, provision, cultural and regulation provided by the ecosystems through which we pass.

The operations of our Transportation Division are not generally located in areas with high biodiversity value, with the exception of tracks that cross some zones that were declared protected after the construction of the railroad system. These zones are mostly located in the states of Coahuila, Colima, Sinaloa, Sonora and Veracruz.

When our operations could impact the biodiversity, on crossing zones declared protected, we comply with the requirements of the environmental authority in the design stage, construction and operation of the works, in addition to having monitoring mechanisms in place for clearing vegetation and soil compaction and erosion.

To assess our environmental performance, the Right of Way and Environmental Management Department constantly report to the Corporate Projects Department on the progress and status of environmental permits and processes, as well as monitoring performance indicators. The Transportation Division always adopts environmental best practices and in 2019, we maintained Environmental Quality certification at our mechanic shops and fueling zones under the National Environmental Audit Program. We make every effort to ensure the impacts on the environment (biodiversity, soil, water, air) from our activities and operations are reduced to the minimum possible. Although we have no significant impacts on biodiversity, our management approach is based on protecting and caring for the environment under a perspective of sustainability, meeting the needs of today without compromising those of the generations to come.



# OCCUPATIONAL HEALTH AND SAFETY



The number one goal at all our operations is ZERO ACCIDENTS.



## OCCUPATIONAL HEALTH AND SAFETY

### Mining Division

#### 103-1

At Grupo México, occupational health and safety is a priority, as we believe our people are the most valuable asset in our operations. Caring for the health and safety of our collaborators is essential and fundamental in all our activities. We are also committed to the ongoing improvement of our processes and activities, identifying all the threats, assessing the risks and implementing measures of prevention and control. We also promote the early detection and prevention of diseases and injuries, recognizing that all workplace incidents are preventable.

Our goal is Zero Accidents. We identify the occupational health and safety impacts from all our operations in Mexico, the United States and Peru. We also have operational controls in place to protect our personnel, contractors, visitors, facilities and our neighbor communities.

#### 103-2

We are committed to creating safe and healthy workplaces for our collaborators, contractors and suppliers, and also to building a culture of prevention through the ongoing improvement of our comprehensive workplace health and safety management system, as well as compliance with the relevant legal requirements. Our management approach focuses on preventing, mitigating or correcting the negative impacts on the health and safety of our personnel while maximizing the positives. We also use Workplace Health and Safety Management Systems, which are aligned with OHSAS 18001:2007 in transition to ISO 45001:2018.



We keep our workplaces healthy and safe through a consolidated culture of prevention in occupational health and safety.

At Grupo México, **occupational health and safety is a priority**, as we believe our people are the most valuable asset in our operations.

## Organizational management

The workplace health and safety strategy of Grupo México is based on the following:

- **Maintain safe and healthy workplaces**, improving our prevention of injuries and occupational diseases through the inspection and correction of all unsafe conditions that could put our employees at risk. We also continually monitor our workplaces for harmful agents to then control the exposure of our personnel and implement additional controls to protect their health.
- **Consolidate a culture of prevention in occupational health and safety**. We focus on changing the current values, beliefs and attitudes toward safety to generate a commitment among our collaborators to work safely and that our collaborators themselves foster preventive practices both in and outside our operations.
- **Identify and effectively control our critical risks**. We have various programs in place to identify and proactively mitigate the high potential risks and to control our critical risks. These programs focus on improving how we identify, implement and evaluate controls that will reduce serious injuries or loss of life.

## Policies

Our General workplace health, hygiene and safety policy outlines our commitment to providing leadership and resources to incorporate basic values of health and safety throughout the company. It also states our commitment to build a culture of prevention through the ongoing improvement of the comprehensive workplace health and safety management system and compliance with applicable legal requirements. Health and safety figure in our Code of Ethics and in the expectations for suppliers and contractors.

## Objectives and goals

Our sustainability strategy describes our objectives for ongoing improvement in the health and safety of our operations. See the section on evaluation mechanisms for details of our progress in achieving the 2022 goals.

## Roles and responsibilities

Workplace Health and Safety is managed in the Mining Division by the following roles to provide direction, resources and visibility at all levels of the organization:

- Through the Sustainability Committee, Senior Management supervises and audits the performance of our health, safety, environmental and community policies and systems, including the implementation of our management standards in health and safety. Health and safety incidents are reported monthly through performance reports and quarterly to the Sustainability Committee, which is made up of various members of our executive team.
- The following senior management roles participate in the implementation of health and safety management:
  - **Corporate Vice-President of Sustainable Development**, reports directly to our CEO and is responsible for our performance in the environmental management, health and safety of our employees and our relationship with our neighbor communities.
  - **Vice-President of Health and Safety** leads our efforts from the corporate headquarters in support of development, education and training on health and safety policies and procedures for our collaborators at all our operations.
  - **Safety Officer**: This position is present at the following operations: SPCC, Asarco, one at the Minera México underground mines, another at the Minera México open pit mines and another for Minera México contractors. They all support the properties ensuring compliance with safety regulations, guidelines and programs to strengthen workplace environments and safe behavior through objectives and goals focused on the

ultimate goal of Zero Accidents. They audit compliance with the safety management system, conduct regular inspections of the properties both physically and document review, support the development of programs to meet compliance with regulations, and verify compliance with critical risk controls and the protocols for emergency response and prevention. Safety Officers support the investigation of serious accidents and report to the Vice-President of Health and Safety.

- **Industrial Hygienist**: The following operations have this position: SPCC, Asarco, Minera México open pit mines and the Minera México underground mines. They are responsible for monitoring the industrial hygiene program by reviewing the reports of contaminants in the workplace environment, presenting the results to the central safety committee at the properties, and where needed, develop improvement proposals to meet regulatory compliance, following up on their implementation. They report to the safety officers.

## The health and safety organizational roles at our properties are:

- **Property Manager/Operations Officer**. Holds the ultimate responsibility for safety. Tasks their department managers/superintendents with the safety of the personnel under their charge. Authorizes the health and safety budget. Conveys the safety policies. They chair the meetings of the central committee and others considered necessary, and promote the ongoing improvement of health and safety through the management system.
- **Department Manager/Superintendent**. Responsible for the safety of the personnel in their department. Holds their supervisors responsible for the personnel under their charge. They chair the safety meetings for their department and promote the ongoing improvement of health and safety in their department.
- **Maintenance Manager/Superintendent**. Carries out the work orders promptly and follows a preventive maintenance program duly documented from a safety perspective. Maintains a regular inspection program to verify the critical equipment is operating safely. Instructs their personnel to perform their tasks in a clean and orderly manner, complying with the safety rules applicable. Instructs their personnel to always return the safety guards on the equipment to their place and to test the safety devices on equipment, taking any unsatisfactory equipment out of operation until the problem is corrected.
- **Safety Superintendent**. Prepares and follows up on compliance with the annual safety program at each property. Verifies compliance with the safety management system. Attends the meetings of the safety committees. Verifies the operation of the safety cells. Supervises the maintenance of the safety

equipment. Maintains sufficient inventory of personal protective equipment. Coordinates emergency drills. Plans and coordinates a program of regular hygiene and safety inspections. Verifies compliance with the recommendations resulting from hygiene and safety audits and inspections. Participates in accident investigations, verifies compliance with the resulting recommendations and coordinates the review of the threat identification matrix, risk assessment and controls. Analyzes and keeps accident statistics. Plans the safety trainings. Reviews and authorizes the workplace safety analyses and the safety procedures. Plans and participates in health promotion events. Verifies hygiene and safety regulatory compliance. Prepares the reports on safety performance and accident trends. Reports to the Property Manager or Operations Officer.

- **Safety specialist.** Verifies hygiene and safety regulatory compliance. Verifies the application of the preventive programs. Verifies that high-risk activities are performed applying the corresponding controls. Participates in the planning, implementation and improvement of the health and safety management system. Verifies the safe conditions of the workplace and compliance with safety procedures. Participates in safety trainings for staff. Participates in accident investigations. Reports to the safety superintendent.
- **Safety training coordinator.** Prepares and executes the hygiene and safety training plan. Coordinates the health and safety training of supervisors and employees. Prepares indicators on compliance and training. Reports to the safety superintendent.
- **Head of occupational health medical services.** Advises, coordinates and controls the occupational health and hygiene programs for company employees through preventive programs to maintain and improve the health and physical wellbeing of employees, and also to prevent occupational diseases, complying with applicable legislation and regulations. Provides friendly and efficient primary and secondary quality prevention medical attention. They are responsible and qualified, with a deep respect for patient dignity, as well as a commitment and attitude of service for the overall health of Grupo México personnel.



Our sustainability strategy describes our objectives for ongoing improvement in the health and safety of our operations.

- **First line supervisor.** Responsible for the safety of the personnel under their charge. Verifies compliance with safe work practices and safety rules. Trains their personnel to ensure they are working safely. Responsible for our workplaces being safe, ordered and clean, properly lit and ventilated. Provides first aid to injured workers. Reports and participates in accident investigations and corrects the originating causes. Participates in the safety meetings for their area and those held with their own personnel. Promotes safety individually with their collaborators.
- **Employee.** Responsible for their own safety and for looking out for the safety of their coworkers. Works according to safe work procedures. Reports any unsafe conditions and practices to their supervisor or to the safety department. Complies with the safety rules. Makes observations

or suggestions to their supervisor or to the safety department on issues of health and safety. Does not perform tasks for which they have not been trained. Participates in the safety committees when they are called.

**The properties have the following safety committees:**

- **Central safety committee (preventive services).** Made up of the director/general manager and managers/superintendents of the different departments of the business unit, meeting monthly to review compliance with the different activities, objectives and safety indicators, proposing improvement plans through the health and safety management system.
- **Safety and hygiene commission (Mexico), Joint committee (Peru) and Formal safety committee (USA).** Made up of equal numbers of representatives for the employer (company) and the union (workers). Carries out an annual schedule of visits to inspect unsafe conditions and actions in the different departments at the business unit.
- **Department safety committee.** Made up of the head of the department or area and the supervisors under their charge. Carries out a schedule of activities and holds monthly meetings to review regulatory compliance and safety conditions, and to propose improvement plans for any deviations found.
- **Supervisor and worker committees (Safety Cells).** Interdisciplinary working groups made up of the supervisor and workers under their charge. Tasked with ensuring a safe workplace and detecting threats and controlling the risks present in the day-to-day activities.

**Resources:**

- We have a solid organizational structure in place for health, hygiene and safety. We prepare an annual budget for all health and safety projects and requirements.
- We have appropriate facilities and technology and stay current with the latest technological innovations in the market.
- The investments and spending by the Mining Division in health and safety are shown in the following table:

**Investment and spending in workplace safety (US\$ 000)**

	MM	SPCC	ASARCO	AMC
Overhead	1,871	1,097	1,671	4,638
Training	56	689	396	1,141
Personal protective equipment	5,506	4,030	2,699	12,235
Industrial hygiene	29,491	7,246	785	37,522
Engineering works	5,914	77,498	1,837	85,248
<b>TOTAL</b>	<b>42,837</b>	<b>90,559</b>	<b>7,387</b>	<b>140,784</b>

The training costs for Mexico include consulting on the implementation of management systems, costs for hygiene and safety training, and training for emergency response teams.

The investment in engineering works focused on industrial hygiene and therefore was reclassified to that account. Principal projects in hygiene:

- Investments and maintenance of dust and gas collector systems
- Investments and maintenance of ventilation systems
- Maintenance of roadways to prevent the release of dust

The other engineering works focused on electrical integrity studies, geotechnical consultations to study slope stability, maintenance of fire equipment, rock mechanics studies, anchoring and netting costs for underground projects.

The ASARCO training costs cover the training for both new and experienced miners, courses required by MSHA in USA, and also high-risk work and health.

### Investment and spending in workplace health (US\$ 000)

	MM	SPCC	ASARCO	AMC
Promotion and protection of health	722	115	204	1,041
Early detection and treatment	4661	1,122	135	1,723
Treatment	25	4,506	667	5,197
Rehabilitation	0	174*	0	174
<b>Total</b>	<b>1,212</b>	<b>5,917</b>	<b>1,006</b>	<b>8,136</b>

\*The costs for rehabilitation in SPCC correspond to the internal handling of cases through company hospitals.

#### Specific processes, projects, programs and initiatives

The objective of occupational health, hygiene and safety is to protect the integrity of the worker. To achieve this, the Grupo México Mining Division has designed three strategies in health, hygiene and safety, developing initiatives for each.

##### 1. Maintain safe and healthy workplaces.

To improve our prevention of injuries and professional diseases, this strategy includes the following initiatives in hygiene and safety:

- **Comprehensive workplace safety and management system.** The Grupo México Mining Division has OHSAS 18001:2007 certified comprehensive workplace health and safety management systems at our business units in Mexico (Charcas, Santa Eulalia, Santa Barbara, Processing Complex, Central Shop, La Caridad Mine, Guaymas Port and lime plant) and in Peru (Toquepala and Ilo). All business units are currently in the process of adopting or migrating to ISO 45001:2018. We monitored each of the activities described in the comprehensive workplace safety and management system monthly in 2019, attended to the follow-up audits of the certifying agencies and resolved the observations found, and addressed the observations from the internal audits conducted by personnel at the properties.

- **Industrial hygiene.** Environmental studies were prepared and controls established at all business units, covering the aspects of lighting, noise, vibrations, ionizing radiation, extreme high and low temperatures, and chemical agents, to prevent occupational diseases. Includes the sanitary conditions of cafeterias, restrooms, showers and dormitories, as well as clean water for human consumption and human waste management.
- **Occupational health.** Guidelines were defined for the development and promotion of preventive workplace health and hygiene services, and the actions necessary to promote a safe and healthy workplace environment at our business units through the following actions:
  - Health management
  - Detection of occupational risk factors
  - Prevention of damages
  - Health protection
  - Medical services
- **Health education and promotion.** We are building a culture of prevention and continual self-care as a new way of life through the following activities:
  - Detection program for cardiovascular risk factors
  - Detection program for non-transmittable chronic conditions
  - Detection program for prostate cancer
  - Addiction prevention program
  - Healthy work spaces program
- **Safety inspections and logs on the Comprehensive Health, Safety and Assessment System.** The safety supervisor and department conducted planned inspections of the different areas and processes at Minera México, ASARCO and SPCC. Unsafe conditions and actions that are detected are logged to receive the appropriate follow-up.
- **5S Program.-** All the units in Mexico, Peru and ASARCO implemented the 5S program initiative in 2019 to improve the order and cleanliness of the workplace. This program uses a Japanese methodology, which is

diseases that could be caused by agents or factors generated from their work activities and responding to emergencies. All Grupo México Mining Division operations delivered PPE in 2019 to their employees based on the work risks to which they may be exposed because of the activities they perform or the characteristics of the areas where they work.

## 2. Consolidate a culture of prevention in occupational health and safety

The following initiatives were undertaken to foster safe behaviors to support a culture of safety where our employees, themselves, are committed to working safely:

- **Behavior-based safety.** The implementation of the behavior-based safety program has been started at the following business units: Charcas, Santa Eulalia, Santa Barbara, Zinc Plant, Processing Complex, Ilo, Toquepala and Cuajone. The program applies methodologies to establish, maintain and increase safe behavior, and consequently reduce or eliminate unsafe behavior. Behaviors are observed and these observations are logged so that concerning behaviors can be analyzed and an action plan developed to correct them. We carry statistics on these behaviors and actions.
- **Health, hygiene and safety training.** The training plan was revised in 2019 based on the needs detected at each business unit to improve preventive awareness and safe work habits with our employees. The plan consists of the following levels:
  - Basic safety. Provides the worker with the health and safety tools they need.
  - Intermediate safety. Provides the worker with knowledge in safety management, accident analysis, working at height, static electricity, rock mechanics and handling chemical substances.
  - Specific safety. Provides the worker with knowledge in specific activities to do their work safely.
  - Advanced safety. Provides the supervisor with tools to effectively manage health and safety in the workplace.



Collaborators from different sites volunteer to join crews and answer calls for help, as happened in 2017, when our crews helped to rescue people trapped following the earthquake in Mexico City.

called the “5S” because in Japanese, each step starts with the letter “S”:

1.- Clear: Separating the necessary from the unnecessary and getting rid of the unnecessary, or relocating these things. 2.- Order: Identifying and placing the objects selected in the first “S” in designated places. 3.- Clean: Keeping the machinery and the workplace clean. 4.- Standardize: Developing visual systems to easily manage the level of order and cleanliness reached. 5.-Discipline: Acting at all times according to the established rules.

- **Personal Protective Equipment (PPE) Program.** This program provides all workers with the PPE required for all types of jobs. PPE is gear and devices specifically designed to protect the worker against accidents and

- **Workplace Health and Safety Week.** These six-day events were held at all Grupo Mexico Mining Division business units in Mexico and Peru to promote health and safety. Highlighted at these events is our commitment to our collaborators and their families through talks, training events, guided visits for families, sports events and health campaigns. Also, prizes are awarded to collaborators without accidents and various contests are held. The goal of these activities is to promote risk prevention, physical activity, safe work practices and values from the home to achieve a healthy lifestyle.
- **Visible and proven leadership in safety.** This program was started in September 2019 at the Santa Barbara unit and from there it has been extended to the operations at Charcas and San Martin. Managers, superintendents and supervisors show their commitment to safety and hygiene by setting the example, organizing teams of four, led by the manager or superintendent of the area, safety personnel and the first line supervisor. These teams visit the different areas to verify the conditions are safe, as well as employee behaviors on performing their tasks. Risky behaviors are identified and, where necessary, it is explained to personnel how to do the task safely and why they will have an accident if they continue to work the way they are, showing them how important this is for the worker and their family. In parallel, this program contributes to the overall goal of preventing injury in the workplace. With the example of the manager, superintendents and supervisors, we reinforce everyone's commitment to safety.

### 3. Identify and effectively control our critical risks

We implemented the following initiatives in 2019 to identify and proactively mitigate high-potential risks and to control critical risks:

- **Programs to control critical risks.** In 2019, we reinforced our critical risk control initiative implemented at all our Grupo México Mining Division operations. This initiative is based on a statistical analysis of the risks that

have led to the most fatalities in the division in the last 28 years. The following control programs came out of this analysis:

- Pits: landslides, crushing vehicles, overturning or tipping, explosion and electric shock.
- Underground: rock falling, explosion, deficient ventilation, fire, flood and electric shock.
- Smelters: explosions in furnaces, equipment and machinery in movement, sulfuric acid spills, falling from height and exposure to contaminants in the workplace environment.

- **Threat Identification, Risk Assessment and Ongoing Control.** This program was implemented at the Grupo México Mining Division business units as a safety management tool to identify threats through preventive observation, and to assess and control risks. This practice is completed at the start of the workday and during the execution of the task, and is updated if there are any changes in the work environment (new people, equipment, materials, among others).
- **Crossed safety audits.** Crossed safety audits were conducted at the AMC business units by groups of personnel from one property auditing another, supported by Health and Hygiene Department personnel. The goal was to internally review the safety system, verify the control of critical risks, and to verify regulatory compliance and the corrections of observations made in the different audits of the safety management system and from inspections by government entities, and also to identify opportunities for improvement and exchange experiences between personnel from the different business units. All AMC properties were involved.
- **Safety cells forum.** A safety cell is a team made up of a supervisor and the employees under their charge, forming a multidisciplinary team to carry out safety prevention actions during the workday. At the start of the workday, employees share experiences using the following process: identi-



fy threats, assess risks and establish controls. To encourage teamwork, innovation in safety and for ongoing improvement at our operations, Minera México has been holding internal and corporate competitions since 2011 known as Safety Cell Forums, where awards are given to the best safety projects created by the safety cells. Since then, the company has supported more than 270 innovative initiatives in safety designed by collaborators. We supported 20 improvement projects at Minera México business units in 2019.

- **Traffic Plan at open pit mines.** This plan was implemented at Minera México (Buena Vista del Cobre, La Caridad Mine and Lime Plant), ASARCO (Silver Bell, Mission and Ray) and SPCC (Toquepala and Cuajone), establishing the minimum requirements to properly manage traffic, driving and the safe operation of the vehicles used at the open pit mine. After analyzing the traffic zones, improvement projects were developed for parking lots, connecting roads, pedestrian zones, loading and unloading areas, among others.
- **Handling and responding to emergencies.** Trainings were held in 2019 for all personnel on how to respond in the event of

an emergency at the Grupo México Mining Division business units. Practice drills were held and problems or errors were corrected. The Emergency Preparedness and Response Procedures were reviewed. Training continued for the different emergency response crews to ensure we have skilled personnel who can take action and measures to prevent incidents and mitigate their effects.

The emergency exits and routes at all business units were checked to ensure they have the proper signage and they are in optimal condition.

There are shelters at the Minera México underground mines with survival kits and these shelters receive regular preventive maintenance to ensure they are available at any time to safeguard and protect personnel unable to reach the surface in the event of a fire or collapse.

The goal of occupational health, hygiene and safety is to protect the integrity of the worker. In this regard, the Grupo México Mining Division undertook the following initiatives in health, hygiene and safety:

### Safety cells forum



Awards given out at the Safety Cells Forum.

Caring for the life, health and wellbeing of our collaborators and their families is a priority at all our Minera México operations. One of our goals is to foster a change in the behavior of our employees to reduce risks and minimize accidents occurring at work.

Minera México has been organizing a forum at each property since 2011 and also a corporate level event where innovative safety projects are presented by teams of collaborators, known as Safety Cells made up of a supervisor and the collaborators under their charge.

Initiatives from all departments are presented during the forum events. The best are chosen to compete at the corporate level. At the end of the corporate event, a winning project is selected and also a second and third place are awarded. The 2019 Safety Cells Corporate Forum was held at the Palacio de Minería in Mexico City and the winners were:

**First place:** Processing Complex for their project "LAVATRON", to reduce personal health and safety risks while washing press filter fabrics. The final products from the smelter are cleaned using filtering devices at the Processing Complex Dust and Effluent Treatment Plant. Impurities are extracted during this process, including lead, arsenic, antimony and bismuth, among others.

**What was happening before the project?** The impurities were cleaned through a complex mesh of fabrics, which needed to be cleaned manually regularly. This maintenance and cleaning was done by collaborators with their personal protective equipment exposing them to substances and heavy metals.

**What does the project solve?** The cell that created the project imagined an automated spraying mechanism that would clean the fabrics without needing to remove them and expose personnel while completing this task.



La Caridad Mine.

**Second place:** La Caridad Mine for their project “Monitoring Vibrations and Temperatures in Real Time, Front Loaders”.

Loading equipment plays an especially important role in meeting the production goals of the open pit mines. At the La Caridad Mine, the KOMATSU WA1200 front loader is used in 25% of the production. The maintenance crew is responsible for ensuring the equipment is working properly and one of the principal functions is to anticipate a potential failure, which would halt operations.

**What was happening before the project?** Maintenance department personnel were constantly checking the temperature and vibrations of the driveshaft to prevent failures. This thermographic measuring was done manually by someone who needed to access the interior of the equipment, exposing them to different risks.

**What does the project solve?** The cell that created the project developed a device that remotely monitors the temperature and vibrations of the equipment in real time, avoiding the need for personnel to measure at the equipment itself.



Zinc cathodes.

**Third place:** Zinc Refinery for their project “Fall arrest device for cathode transportation clamps”. The cathode transportation system is vitally important in the electrolysis fusion and molding process, as it constantly transports the cathodes from the cell area to the stripping machine area.

**What was happening before the project?** On using the cargo crane, the collaborators in the electrolysis fusion and molding mechanic shop were exposed to risk of crushing from falling clamps, both on attaching clamps to load or on transporting the clamp.

**What does the project solve?** The cell that created the project developed a fall arrest device for clamps for the transportation of cathodes, consisting of a gripping mechanism with an actuator bolt and spring, which reduces the risk of clamps falling.

### Traffic Plan for open pit mines



Buenavista del Cobre mine.

The Traffic Plan was implemented at all AMC open pit mines to significantly improve the control of risks in the operation of the different types of vehicles on hauling roads and parking lots at the open pit mines.

This plan establishes the minimum requirements to effectively manage the traffic, driving and safe operation of moving vehicles used in the area of the open pit mine.

After analyzing the traffic zones, projects have been developed to improve the signage on roads and at crossings, parking lots, connecting roads, pedestrian zones, loading and unloading areas, among others.

The mine operations where the Traffic Plan has been implemented are:

- Minera México (Buenavista del Cobre, La Caridad Mine and Lime Plant)
- ASARCO (Silver Bell, Mission and Ray)
- SPCC (Toquepala and Cuajone)

## Evaluation mechanisms

### 103-3

Internal auditors and certifying agencies audit our workplace health and safety management system every six months at each of our business units. In 2019, 22 internal and 22 independent audits were conducted in Mexico, in Peru six internal and two independent audits were conducted, and at ASARCO, 10 internal audits were conducted.

The audits of the management system review the following:

#### » Leadership and engagement of employees:

- Leadership and commitment
- Workplace Health and Safety Policy
- Roles, responsibilities and authorities in the organization
- Consultation and participation of employees

#### » Planning

- Actions to address risks and opportunities:
  - Identification of threats and assessment of risks and opportunities
  - Determination of legal and other requirements
  - Action plans
- Objectives of the workplace health and safety management system and planning to achieve these goals:
  - Objectives
  - Planning to achieve the objectives
  - Programs and initiatives
  - Health and safety statistics
    - Number of injuries by downtime
    - Frequency of injuries by downtime
    - Number of fatalities

» **Support**

- Resources
- Competencies
- Raising awareness
- Internal and external communication
- Documented information

» **Operation**

- Planning and operational control:
  - Eliminate threats and reduce risks
  - Change management
  - Purchasing
- Emergency preparedness and response

» **Performance review**

- Monitoring, measuring, analysis and review of performance:
  - Compliance review
- Internal audit:
  - Internal audit program
- Management reviews

» **Improvement**

- Incidents, problems and corrective actions
- Ongoing improvement

The management teams use the audit results to inform future actions and the planning process. Additionally, each program implemented has its own strategic indicators.

The results are presented in health and safety performance reports and include information on fatalities, serious incidents and the control measures that can be applied throughout the company. These reports are published monthly. The significant incidents and the review of our safety performance are discussed at bimonthly meetings with our CEO, senior management and regional directors.

**Results of the review linked to the 2022 corporate goals**

2022 Corporate Goal	Achievement	2019 Results	Measures taken in 2019 to achieve the goal
Zero fatal accidents	●	There were three fatal accidents at our operations.	<ul style="list-style-type: none"> <li>• Critical risk control program</li> <li>• Safety conditions improvement projects</li> </ul>
Reduce the frequency of incapacitating accidents among our employees and contractors by 25% in the Mining Division.	●	The frequency has not been reduced, rather this rate has increased at our AMC operations.	<ul style="list-style-type: none"> <li>• Critical risk controls</li> <li>• Implementation of the Traffic Plan at open pit mines</li> <li>• Verify the identification of threats, risk assessment and application of controls form is completed correctly</li> <li>• Verify and educate on the roles and responsibilities of the job</li> <li>• Actively participate in the changing culture program started at the underground operations with the firm UBUNTU</li> <li>• Zero accident campaigns</li> <li>• Health and safety week</li> <li>• Training, evaluation and operational control certification</li> <li>• Leadership program</li> <li>• Safety training manuals for the open pit and underground mines</li> <li>• Safety training dynamics at underground mines</li> <li>• Crossed safety audits</li> </ul>
Implement a Behavior-Based Safety System at 75% of the business units in the Mining Division.	●	56% progress  The behavior-based safety program has been implemented at Santa Barbara, Santa Eulalia, Charcas, Zinc Plant, Processing Complex, Ilo, Cujajone and Toquepala	<ul style="list-style-type: none"> <li>• Total implementation of the behavior-based safety program</li> <li>• Analysis of the concerning behaviors, action plans developed to address these behaviors.</li> <li>• Cognitive behavioral sessions for personnel</li> </ul>
ISO 45001 certification for all Mining Division business units	●	32% progress  Currently in the phase of migrating documents to ISO 45001 at all AMC business units. Recertification processes have started at Buenavista del Cobre, La Caridad and Lime Plant	<ul style="list-style-type: none"> <li>• Document migration from OHSAS 18001 to ISO 45001</li> <li>• ISO 45001 pre-audits</li> <li>• Follow-up on identified areas for improvement</li> <li>• ISO 45001 certification audit</li> </ul>
Involve 70% of our Mining Division personnel exposed to health risks (non-occupational) in preventive programs.	●	60% progress	<ul style="list-style-type: none"> <li>• Identify personnel with non-occupational health risks</li> <li>• Quarterly medical follow-up for personnel with non-occupational health risks</li> <li>• Follow-up with the IMSS on completing their medical treatment</li> <li>• Physical activity program</li> </ul>
Implement a comprehensive traffic management plan at all open pit mines.	●	66% progress	<ul style="list-style-type: none"> <li>• Complete the signage program</li> <li>• Full compliance with the mine access conditions</li> <li>• All giant trucks must have a functioning anti-fatigue system</li> <li>• All connecting roads at the mines have been laid</li> </ul>



The “Coyotes” crew runs a mine rescue drill at our Santa Barbara mine in Chihuahua, Mexico.

#### Next steps to achieve these goals:

- Follow-up on the critical risk control programs at all our AMC units.
- Implement a Behavior-Based Safety System at the remaining sites and reinforce the system already implemented with actions to strengthen a culture of safety and prevention.
- Complete the implementation of the comprehensive traffic management plan at all open pit mines, and also improvement projects to eliminate risks.
- ISO 45001:2018 pre-certification and certification audits will be conducted at the Minera México mines; also continuing with the implementation of ISO 45001:2018 at the ASARCO and SPCC mines.
- Involve ASARCO personnel exposed to health risks (non-occupational) in preventive programs.

## Workplace health and safety management system

### 403-1

As part of our commitment to achieving our 2022 Sustainable Development corporate goals, our operations in Mexico, Peru and the United States are in the process of transitioning or implementing Workplace Health and Safety Management Systems based on ISO 45001:2018, projecting that all units will have a certified management system by 2022. This responds to the need to strengthen our health and safety management through standardized processes and procedures that ensure an optimal and efficient operation, protecting the integrity and health of our collaborators.

The implementation of our management systems includes full compliance with the applicable regulations, ensuring that our operations meet the minimum regulatory requirements as established in the laws, codes and standards of each country through constant monitoring by the safety leaders and specialists, and also the health and safety committees at each business unit.

Our AMC workplace health and safety management systems provide a comprehensive working framework to systematically manage the operational risks associated with our key business goals and results, integrating processes, standards and behaviors into our day-to-day operations.

The scope of our workplace health and safety management systems covers all the operations, processes and activities at our business units, including the principal mine extraction processes and metal processing, maintenance support processes and transportation. Our workplace health and safety management systems apply to all, including management, employees, contractors, suppliers, volunteers and those who may be affected by our operations or who conduct any type of activity at our facilities, ensuring that everyone complies with all the procedures and guidelines in place, fostering a culture of safety.

## Hazard identification, risk assessment and incident investigation

403-2

### **a) Routine or non-routine processes used to identify workplace hazards and assess risks**

Our goal at AMC is to continuously improve our safety standards. In this regard, a fundamental part of the risk management system was implemented with the following measures at the business units of the Grupo México Mining Division to routinely and non-routinely identify labor hazards, the hierarchy of control and assess risks:

- i) The Hazard Identification, Risk Assessment and Control (HIRAC) process is ongoing. It is a tool in safety management that, through preventive observation, identifies hazards and assesses and controls risk. Our collaborators complete the HIRAC form at the start of the workday and while performing their tasks, and the form is updated when there are changes in the workplace environment (new people, equipment, materials, among others). The supervisors review the HIRAC to ensure the correct identification, priority and minimization of risks. Non-routine workplace safety analyses are conducted to develop new workplace safety procedures or to review the current procedures. Personnel improve their competencies through training programs and on-the-job training, which in the case of small teams is delivered through instructors and, for larger teams, particularly in the case of underground and open pit mines, through simulators. The quality of these processes is verified through internal and independent inspections and audits.
- ii) The information obtained from the workplace safety analyses and the HIRAC is used to prepare the Hazard Identification, Risk Assessment and Controls matrix. This matrix is developed by multidisciplinary teams, together with employees, supervisors, safety specialists, health and safety committees and managers, who have the skills and competencies necessary to supervise these processes. The matrix is reviewed as necessary, particularly on the occurrence of an incident, and is made available for employees to consult. New controls and workplace safety procedure are disseminated among employees through instruction sheets. This matrix helps to prioritize the risks.

### **b. Processes for reporting hazards or hazardous situations in the workplace and how employees are protected against potential reprisals.**

Employees immediately report hazards and risks that cannot be controlled to their supervisor through the HIRAC, and if the supervisor is unable to control the hazard, the work is suspended until the hazard is controlled through studies or procedures developed by company officers together with employees. Under our new open door policy, AMC encourages employees to report any unsafe act or condition to their supervisor or safety leaders, suspending their activities with no fear of reprisal until the hazard has been controlled, guaranteeing that all our activities are conducted under safe and healthy standards. There is also a system for presenting grievances at our business units (suggestion boxes) and a phone line for reports and complaints (see the chapter on Professional Ethics for more information about the Reporting Line).

### **c. Policies and procedures for employees who want to remove themselves from risky situations in the workplace.**

When a collaborator identifies an unsafe condition while working that could cause them injury, harm or disease, they must stop what they are doing and report the situation to their supervisor and to the safety department so that situation can be corrected. The safety department verifies that the unsafe or unhealthy conditions have been corrected to then restart the work activities. The explanation of how the employee is protected against reprisals is given in the paragraph above.

#### **d. Processes for investigating workplace incidents**

We have a procedure in place to log, investigate and analyze incidents. Investigations are conducted immediately, identifying the hazards and assessing the risks. The originating causes are determined and the corrective actions are classified into immediate execution or within 30, 60 or 90 days, following up on their implementation. The risk controls are reviewed to verify they are adequate or whether they require improvement. The results of the investigations are reported to the property manager to develop the improvement to the management system.

### **Workplace health services**

#### **403-3**

Preventing risks at our operations is important and helps us to improve our safety performance and to move closer to our core goal of zero accidents. We provide specific, regular and free occupational medical exams to our occupationally exposed employees each year and also conduct workplace environment industrial hygiene studies, which include different tests, depending on the type of contaminant agents present to which employees are exposed. These regular assessments contribute to evaluating the effectiveness of the controls implemented and to improving any type of deficiency in these controls, reducing the probability of the occurrence of workplace-related diseases.

Personnel who have already been diagnosed with a chronic degenerative disease receive medical monitoring to remain in good health and prevent other health problems that could shorten their healthy and productive life.

International accrediting entities check our instruments, equipment and results of our industrial hygiene studies to maintain the reliability of our health services. Also, the healthcare professionals on our medical team either are specialists in Occupational Medicine or are in the process of completing a specialization in Occupational Health.

### **Worker participation, consultation and communication on occupational health and safety**

#### **403-4**

#### **a) Employee engagement and consultation processes**

At AMC, the participation of our collaborators is fundamental, for which we have developed, implemented and maintained a procedure for employee participation and consultation, covering the following:

- Involvement in identifying hazards, assessing risks and determining controls.
- Participation in incident investigations.
- Involvement in the development and review of workplace health and safety policies and objectives.
- Communication when there is any change that would affect workplace health and safety through talks, newsletters or training.
- Representation in issues of workplace health and safety.

We inform our collaborators about participation agreements, including who the representatives are for workplace health and safety issues through eight lines of action: compliance with regulations and standards, safety training, safety promotion, operational

safety organization, identification of unsafe actions and conditions, industrial hygiene, innovation in safety, and occupational health. We also inform our contractors when there are changes that would affect workplace health and safety.

As appropriate, we bring in outside consultants on relevant issues in workplace health and safety.

#### **b. Description of the formal employee-company health and safety committee**

At AMC, synergy between our collaborators and the company is fundamental, for which we have safety and hygiene commissions (Mexico), joint committees (Peru) and formal committees (USA). These commissions have the same number of representatives for the employer (company) as for the union (employees).

The Safety and Hygiene Commissions or joint committees or formal committees have the following roles and responsibilities:

- Monthly visits to detect unsafe conditions and actions, and to recommend the measures necessary for the elimination, prevention or control of the workplace risks at the business unit.
- Review the analysis and statistics for workplace accidents and diseases, and also progress in adopting the safety measures resulting from the monthly visits, prepared for each inspection.

- Identify the agents, hazardous conditions or unsafe actions in the workplace.
- Investigate the causes of workplace accidents and illnesses.
- Determine measures to prevent workplace risks, based on applicable regulations and standards.
- Follow up on the implementation of the measures proposed by the commission to prevent workplace risks.

## Worker training on occupational health and safety

403-5

At AMC, we offer health and safety training to all employees, contractors and suppliers who do any type of work at our operations, offering four levels of training:

- **Level 1 Basic Safety.** All personnel are required to be trained through courses on topic areas of knowledge and values to develop their safety skills to identify hazards and assess risks, present or potential, in their workspace and to be able to prepare prevention strategies, and correctly execute the corresponding procedures in the event of an emergency.
- **Level 2 Intermediate Safety.** At this level, employees acquire knowledge and values, and develop the safety skills they need to do their work and follow specialized procedures in their areas, and to be able to prepare prevention strategies and correctly execute the corresponding procedures in the event of an emergency.
- **Level 3 Advanced Safety.** Supervisors acquire knowledge and develop specific skills to work and verify their staff are working safely.
- **Level 4 Specific work skills.** The collaborator acquires and develops the specific knowledge and skills required to do their work safely. For example,

operation of trucks, diggers and drills at open pit mines and drilling equipment at underground mines, scooptrams, electrical work, etc.

## Promotion of worker health

403-6

At AMC, we focus on building a culture of health beyond our basic operations, where our collaborators and their families, and the employees of our suppliers and contractors, can improve their overall state of health. In this regard, we have developed and implemented initiatives and standards aimed at improving physical and mental wellbeing.

- a) explanation of how the organization facilitates workers' access to non-occupational medical and healthcare services, and the scope of access provided.

AMC offers collaborators the option to receive healthcare through medical insurance in each country, provided either by the state or privately. In some cases, we also provide major medical insurance as a benefit or through SPCC hospitals.

- b) description of voluntary health promotion services and programs offered to workers to address major non-work related health risks, including the specific health risks addressed, and how the organization facilitates workers' access to these services and programs

The workplace wellbeing program consists of a series of preventive activities to improve health and raise the quality of life of our collaborators by identifying and detecting health risks. We encourage healthy habits by fostering a culture of selfcare. The principal areas addressed are exercise, proper nutrition, detection of cancer and chronic degenerative diseases, and also changes in smoking habits and alcohol consumption. The benefits of exer-



cise are well known, for which we have developed specific programs such as soccer and bowling tournaments, and other physical activity, among others, for our collaborators and contractors.

We work hand-in-hand with a nutritionist to provide healthy and balanced meals in our employee cafeterias, and to offer personal consultations to any employee who requires a more rigorous regimen to improve their state of health. We also hold health and safety fairs each year at all our operations, offering early cancer detection tests and vaccination campaigns, which are provided for anyone and the families of our collaborators are invited to attend and participate.

### Coverage of the workplace health and safety management system

403-8

Our AMC operations have workplace health and safety management systems based on OHSAS 18001:2007 and ISO 45001:2018. These systems control the risks, comply with regulatory or government requirements and provide ongoing improvement for workplace health and safety.

All our employees, collaborators and contractors are covered by these workplace health and safety management systems, which are subject to both internal audits and audits or certifications by authorized independent agencies.

No employee, collaborator or contractor is excluded from our workplace health and safety management systems. The personal information included in these management systems is based on the results of our internal and independent audits.

At the end of 2019, ten of our operations were OSHAS 18001:2007 certified, where all our employees and contractors are covered by workplace health and safety management systems.

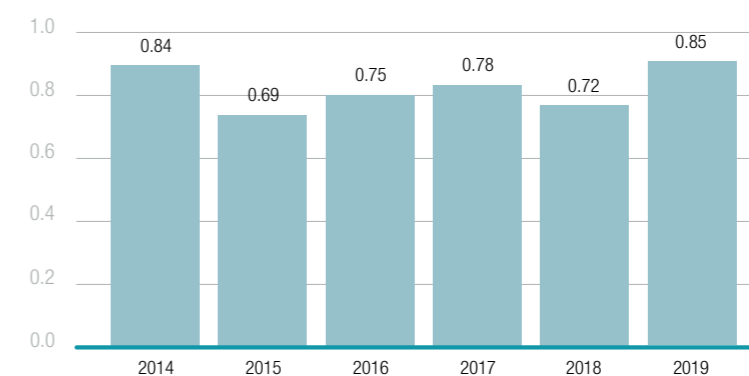
These management systems are certified by authorized independent agencies and we frequently conduct internal audits to ensure the systems are working properly and to strengthen our management through ongoing improvement.

### Work-related injuries (employees and contractors)

403-9

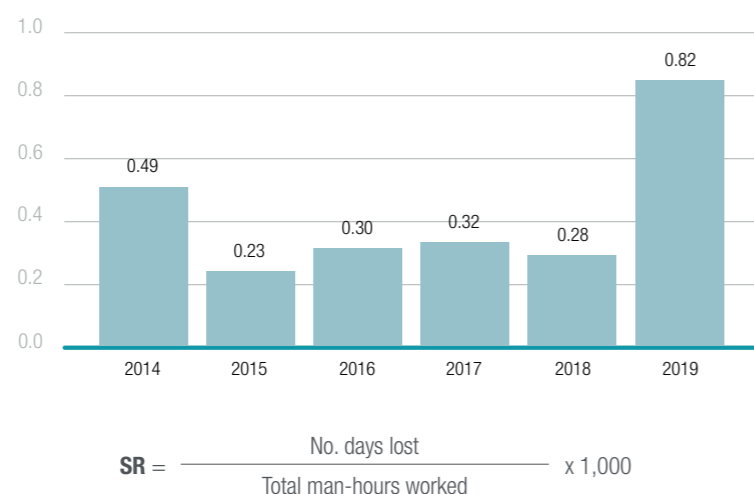
		ASARCO	MM	SPCC	AMC	RATES
i. Fatalities	Employees	0	2	1	3	0.02
	Contractors	0	1	0	1	0.01
ii. Permanent incapacitating injuries*	Employees	1	2	0	3	0.02
	Contractors	0	0	0	0	0.00
iii. Temporary incapacitating injuries*	Employees	18	110	34	162	0.82
	Contractors	0	43	46	89	0.61
iv. Man-hours worked	Employees	4,112,759	22,296,759	13,212,349	39,621,547	
	Contractors	689,535	13,814,056	14,662,580	29,166,171	

**Incident Rate (IR)**  
Mining Division 2013-2019



$$IR = \frac{\text{No. incapacitating accidents}}{\text{Total man-hours worked}} \times 200,000$$

### Severity Rate (SR) Mining Division 2013-2019



AMC deeply regrets the loss of four valued employees at our operations. Their loss has led us to double our efforts in safety and to continually work to optimize preventive measures to eliminate unsafe conditions and actions until we achieve our goal of Zero Accidents. The detailed investigations of these accidents identified the root causes to then take preventive measures to ensure they do not happen again.

Hazards that present a risk of work-related injury:

The principal hazards identified at our AMC operations have been determined by a statistical analysis of the risks that have caused the most fatalities by division. These hazards must be controlled because of their high potential for causing an accident:

- » **Open pit:** landslides, crushing vehicles, overturning or tipping, explosion and electric shock.
- » **Underground:** rock falling, explosion, deficient ventilation, fire, flood and electric shock.

- » **Smelters:** furnace explosion, equipment and machinery in movement, sulfuric acid leaks or spills, falling from height and exposure to contaminants in the workplace environment.

We identify the hazards to which our employees are exposed as follows:

- We establish a historic baseline of the critical risks that have caused the greatest number of injuries or fatalities at our operations, for which we also take into account the information generated by the mining sector in the different regions where we work.
- We identify the health and safety risks to which our collaborators are exposed for each routine and non-routine activity, based on a workplace safety analysis. All members of the team participate in this process, including the supervisor. The result is an analysis that considers all the steps in any particular task, the controls needed to perform the task with the least amount of risk, and we also consider the recommendations of other departments, like maintenance, operations, planning, safety and environment to ensure the task will be performed in the safest way possible.
- A risk map is generated for the different areas at our operations, built from the results obtained in the two paragraphs above.
- The control measures are contained in workplace safety procedures, instruction manuals, safety standards and in emergency response plans.

Measures taken or planned to eliminate other workplace hazards and minimize risks through the hierarchy of hazard controls.

The measures taken for other hazards are contained in the hazard identification, risk assessment and control measures matrices, which build the hierarchy of hazard controls in the different processes and activities. The measures planned are based on the ongoing review of these matrices and best practices in engineering, and include the Traffic Management Plan at open pit mines or technological advances such as localization in real time in the interior of the underground mines.

No company employee or contractor has been excluded from this content

## Work-related ill health

### 403-10

To ensure the control measures are respected and applied while the tasks are being performed, we conduct regular inspections of the workplaces, prepare inspection reports and follow up on these reports. These inspections are conducted together with the other departments involved and any unsafe conditions found are reported and work orders are prepared for scheduled, preventive and corrective maintenance to maintain equipment and machinery in good working order, which protects our personnel.

Attention to hazards is a priority at our operations. An operation may be shut down while corrective measures are taken until a risk is controlled. Risks are assessed and control measures determined, applying the following hierarchy: Elimination, Substitution, Engineering Controls, Signage, Alerts, Administrative Controls, and lastly, Personal Protective Equipment.

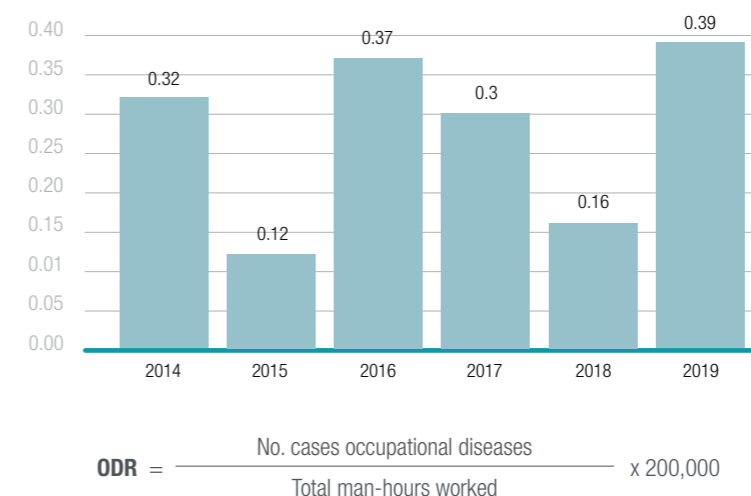
We also have programs that focus on the following areas:

- Workplace hygiene: Control programs that address exposure to toxic gases, noise, dust, extreme high or low temperatures, hazardous chemical substances, gases, vapors, sprays or mists, metal fumes and ionizing radiation.
- Employee training on exposure to sharp objects, handling tools and objects, vehicle collisions and accidents, and being trapped by parts in movement.
- Fire, spill and fugitive emission prevention and response, each of which has its own emergency response protocol.
- We started to identify and control psychosocial risks in 2019.

All these programs are accompanied by training in health and safety, order and cleanliness, applying the 5S methodology, behavior-based safety, and safety leadership, among others.

Disclosure 403-10		ASARCO	MM	SPCC	AMC
i. Fatalities resulting from work-related ill health	a. Employees	0	0	0	0
	b. Contractors	0	0	0	0
ii. Recordable cases of work-related ill health	a. Employees	2	47	28	77
	b. Contractors	0	0	0	0

### Occupational disease rate<sup>2</sup> (ODR) Mining Division 2013-2019



The principal occupational or workplace diseases with recorded cases at AMC are:

Disease	ASARCO	MM	SPCC
Deafness	2	30	28
Pneumoconiosis		17	

<sup>2</sup> The equivalency between the Occupational Disease Rate (ODR) and the Occupational Illness Frequency Rate (OIFR) is: OIFR = ODR x 5

Workplace hazards that present a risk of ill health or disease:

- i. The principal hazards that may cause occupational diseases are determined through industrial hygiene studies.
- ii. From the table above, the principal hazards associated with these diseases are prolonged exposure to noise for deafness and exposure to dust for pneumoconiosis.
- iii. The principal measures to counter the exposure to these risks are:
  - **Noise.** Elimination or substitution of the elements that generate noise and then reinforcement of the use of personal protective equipment.
  - **Dust.** Improve ventilation in operational areas, installation of fume extraction systems, creation of sealed stations in certain work areas and the correct use of personal protective equipment.

## Infrastructure Division

### 103-1

Our goal in the Infrastructure Division is that all our direct and indirect employees return home physically and mentally in good health. We have designed comprehensive strategies for engagement and commitment in health and safety throughout the organization, starting with our Senior Management.

To achieve our goal, we promote healthy and safe workplace environments based on legal compliance, identifying hazards and risk management in all our work activities, in adherence of health and safety management systems with ISO 45 001 international certification, ongoing improvement and international good practices to improve our operations, in addition to being inclusive with our personnel.

The focus of our management approach is to improve the culture of prevention and safety in our organization through awareness, training and developing leadership among our collaborators.

## Organizational Management

### 103-2

The monitoring and performance of our health and safety organizational management in the Infrastructure Division is based on three principal pillars:

- **People:** Our collaborators are our most important resource in the Infrastructure Division, therefore we are constantly working to generate safe habits in our day-to-day activities, raising awareness on personal safety, the safety of our coworkers and our communities. Technical and human training provide elements for informed and sound decision-making.
- **Workplace environments:** Safe workplaces are a priority for the company, for which we invest in preventive maintenance for fire equipment, physical protection barriers against electrical currents, grounding, and other equipment to prevent or control potential incidents that could threaten the lives of our personnel.
- **Management systems:** We focus on developing and implementing the operational controls necessary for our operations to be safe based on risk management to prevent injury and damage to equipment or the environment caused by our activities.

The three pillars operate in conjunction with Mexican occupational health and safety regulations and international good practices.

### Policies

Our Infrastructure Division Occupational Health and Safety Policy focuses on guaranteeing safety conditions, safeguarding life and the physical integrity and wellbeing of our employees through the prevention of accidents and occupational diseases. This policy is applicable to all unionized and non-union Infrastructure Division employees, and also to suppliers, contractors and visitors.

This policy is based on ongoing improvement, risk management, communication and legal compliance, and places emphasis on the leadership of each member of the organization to improve the culture of prevention and safety in all our activities. The principal objective of the policy is to prevent incidents that would cause physical or emotional harm, and to protect the facilities and processes.

The safety policy is provided in all orientation processes for new hires, as well as being posted at gathering points at our sites. We constantly promote and disseminate the health and safety directives in the Infrastructure Division.

### Objectives and goals

Our goal is zero accidents and to implement ISO 45001 systems in our principal lines of business: oil, energy, highways and construction.

We report 50% progress in the implementation of ISO 45001 safety management systems.

### Roles and responsibilities

Topics related to the health and safety of our collaborators play a strategic role in the growth of our Infrastructure Division. Senior Management, together with the central safety committee, conduct a detailed analysis of the conditions at the different sites to define the goals, strategies and indicators that will aid the ongoing improvement and innovation in occupa-

tional health and safety management. The indicators are reviewed monthly at the meetings of the board where the efficiency and efficacy of our strategies is evaluated.

Also, Senior Management sets the safety policies under high standards of control and implementation. They also verify the performance of the comprehensive management systems and serve as drivers of change and facilitators in decision-making.

The safety managers at the central level and by line of business develop initiatives to achieve the goals, communicate and implement the policies, monitor the strategies and KPI, launch innovative employee protection projects, oversee compliance with Mexican safety regulations, audit the safety management system, introduce good practices, conduct regular inspections, carry out and review the controls necessary to counter the threats and hazards of the operation, and lead the organization in areas of safety.

The coordinators and supervisors oversee compliance on the frontline, authorize work permits, supervise high-risk work, make recommendations and corrections to personnel when they are engaging in unsafe practices or when there are unsafe conditions, and provide orientation at the worksite to suppliers, contractors and new hires joining the organization.

The employees of the organization, contractors and suppliers are responsible for looking after themselves

to ensure they get home safe and healthy. They are responsible for following the operating policies and controls to keep the workplace safe and healthy, and they are agents of change with their teams, respecting and inviting all personnel to respect the rules for their own safety.

The safety and hygiene commission is a multidisciplinary team made up of unionized and non-union personnel that promotes healthy and safe spaces in the workplace. The commission oversees and protects the interests of all in terms of health and safety, fairness in decision-making, to improve working conditions and promote active responsibility in the organization.

### Distribution of resources

The Infrastructure Division invested US\$1.5 million in 2019 to guarantee safe and healthy spaces for our employees. Of the resources invested, 70% was used in the oil division, where the inherent risk is high. The rest was distributed by order of priority to the worksites. Some of our sites have automated processes, which allows for greater versatility in investment. The resources were invested primarily in the following:

- Personal protective equipment
- Employee hygiene and safety studies
- Medical control studies
- Training
- Improvement projects

### Specific actions, processes and projects

The management system in the Infrastructure Division focuses on our operational and administrative personnel, suppliers and contractors. The areas of management are:

## Risk control and processes

There is a systematic control to manage our risks and human resources, and to respond to emergencies.

- Risk identification and control matrices. As part of the ISO 45001 certification, México Compañía Constructora and Perforadora México have risk identification and control matrices by job position, therefore each employee knows the risks associated with their work and takes the measures necessary to mitigate these risks. These matrices are currently being developed for the other businesses (energy and highways).
- Workplace safety analysis. Tool that is used prior to the start of any operational work to identify the associated risks. This analysis is prepared by the personnel who do the work, with feedback from the safety leaders at each worksite. With this, the employee is involved in the analysis of their own actions and they are aware of protecting their coworkers.
- Work permits. Prior to starting any high-risk work, the employees involved, together with the safety leader, check the physical, chemical, electric and other controls are in place to prevent potential injury or damage to equipment. To do this work, employees must provide written proof of their experience and demonstrate in the field they have the skills to do the work safely.
- Hygiene and safety commission audits. Representatives from the union and the company conduct monthly visits to the worksites to verify the health and safety conditions are being followed. In the event any unsafe condition or action is identified, the employee is invited to follow the rules and the findings are logged to then apply solutions.
- Effective audits. Similar to the above, but these audits are weekly and the teams conducting the audits change constantly. The purpose is that all Grupo México Infrastructure personnel engage in safety to be agents of change.
- Personal Protective Equipment. Prior to starting activities, all collaborators form two lines facing each other and check that the person in front of them has their Personal Protective Equipment according to their work to ensure they have the right physical protection.

## Training and culture

- Health and safety orientation. All new employees joining the operations of Grupo México Infrastructure are required to participate in an orientation session to learn about the safety policies and rules of the company.
- Grupo México Infrastructure believes that the preparation of our employees is fundamental to ongoing improvement, for which we have developed a digital training platform called Universidad I, where personnel can stay current on relevant topics according to their line of business. Additionally, we offer in-person courses delivered by instructors certified by the Mexican Department of Labor and Social Welfare.
- Health and safety week. Held each year to raise awareness and educate our collaborators on health and safety in the workplace, at home and in transit, etc.

## Emergency response

The objective is that each Grupo México Infrastructure employee is prepared for any event that would put them or their equipment at risk.

- The emergency crews are defined and provided with training on fire, search and rescue, managing spills, etc.
- In addition to training the rescue crews, these courses are open to anyone in the organization interested in learning about these topics.
- Practice drills are held to put into practice the learning and share this with coworkers.

## Evaluation mechanisms

### 103-3

Our workplace health and safety management system is audited twice a year by company personnel and once a year by an independent certification agency. To

complement this process, senior management review monthly the relevant indicators, such as incident rate, severity rate and fatalities.

We are sometimes audited by the government and will follow up on their findings.

### Results

The 2019 results of our comprehensive health and safety management in the Infrastructure Division are presented following for our five lines of business. It is important to note that this information is gathered by multidisciplinary teams and from the whole organization, which contributes to following policies and good practices.

- There were no fatal incidents in 2019, meeting the corporate goal.
- The incident rate increased from 0.29 to 0.47 points and we are working to reduce this value. Despite this, we are far below the national average, according to information from the Cámara Mexicana de la Industria de la Construcción (3.52 reference value, CMIC).
- 95% of our personnel received training on health and safety.
- The subsidiaries México Compañía Constructora and Perforadora México received ISO 45001 international certification, representing 50% progress in the implementation of safety management systems for the division.
- The La Caridad power plant received PASST safety certification from the Mexican Department of Labor and Social Welfare. With this certification, we are on our way to creating a world class management system.
- Perforadora México received Provisional International Ship Protection certification from the Department of the Navy.
- We ran more than double the number of practice drills on oil rigs recommended by the International Maritime Organization.

Our subsidiaries Compañía Constructora and Perforadora México **are ISO 45001 certified.**

## Occupational health and safety management

### 403-1

The operating policies and procedures of the Infrastructure Division are applicable to all employees of all our subsidiaries, and also extend to suppliers and contractors who provide support or service to the company. This means that all persons outside the company who work at our sites are required to hold work permits, undergo medical testing, training, etc., and accredit their technical capability and skill to do the work.

These policies adhere to the ISO 45001 management systems and the overall policies of Grupo México Infrastructure. Supervision in the field is ongoing and reviewed through effective audits and the hygiene and safety joint commission.

## Hazard identification, risk assessment and incident investigation

### 403-2

We identify hazards and control risks in two different ways:

- 1-** Through the hazard identification and risk assessment matrices under ISO 45001, which are prepared by multidisciplinary teams, including personnel who routinely perform the tasks in question. In some cases, the matrices are prepared by the safety commissions and disseminated throughout the organization, focusing on the employees who do the work.
- 2-** Workplace Safety Analysis, form that is completed at the start of any operational activity, engaging employees to analyze the risks associated with the task they are going to perform to mitigate the risks, prior to starting the work.



95% of our Infrastructure Division workforce participate directly and constantly in safety issues.

In both cases, the employee receives continual training, which may be provided in a classroom, online or directly at the worksite. The safety leaders at each worksite usually analyze these risks, and the controls, together with the employees.

## Occupational health services

### 403-3

In the Infrastructure Division, 60% of our operations have a medical service to attend to company personnel and also to suppliers and contractors. This attention may be preventive or reactive:

**Preventive:** When the employee voluntarily requests information about nutrition, disease prevention, exercise, or on other topics. One example of this is the health

and safety weeks where we provide information on a variety of topics to promote wellbeing among our employees.

As part of the health controls, employees are entitled to receive a medical checkup at an outside lab once a year, identifying conditions and actions to mitigate associated anomalies.

**Reactive:** When the employee has suffered an injury and needs medical attention. At our sites where there is no doctor, because of the low number of workers, we identify hospitals nearby in the event of emergency and regular doctor's visits are scheduled to monitor employee health.

## Worker participation, consultation and communication on occupational health and safety

### 403-4

Within the Infrastructure Division, 95% of our workforce participate directly and constantly in safety issues. The channels of communication and dissemination are face-to-face conversations with personnel in the morning, new hires receive training, more than three courses on safety are offered each month at our operations, and there is a reporting line to receive concerns from our employees.

Another particularly effective channel is the hygiene and safety joint commissions, which look at employee issues and produce agreements between employer and employees. Additionally, there are ongoing communication programs at our operations that promote caring for personnel.



## Worker training on occupational health and safety

### 403-5

Training is provided as follows:

- Orientation courses on health and safety in the workplace
- Technical and leadership training, according to work activity
- Talks at the start of the workday
- Universidad I training platform
- In-person courses

The scope of these activities was the whole organization throughout 2019.

## Promotion of worker health

### 403-6

We hold awareness events, such as the health and safety week, which offers talks, learning activities for employees, lectures by inhouse and outside experts, practice drills, training and workshops.

In parallel, some operations have an onsite medical service, providing regular check-ups to employees.

## Coverage of the occupational health and safety management system

### 403-8

All Infrastructure Division operations are managed under health and safety management systems. Each worksite has safety leaders, physicians and paramedics that oversee, advise and support personnel as needed.

We actively encourage our collaborators to **live healthy lives.**

## Work-related injuries (employees and contractors)

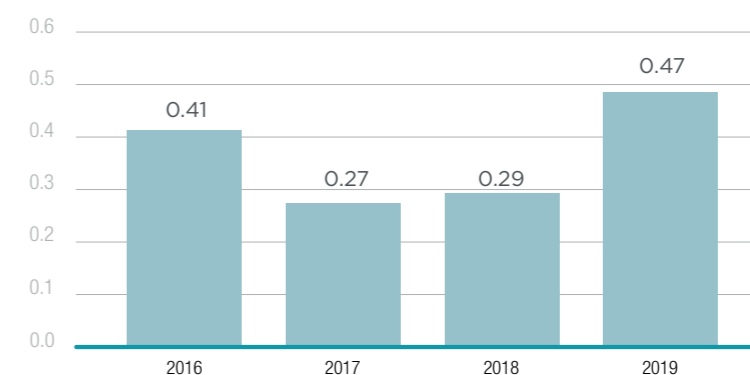
### 403-9

The Infrastructure Division reported 24 incapacitating accidents in 2019, with an incident rate of 0.47. Although this value increased over last year, we remain far below the parameters of the Cámara Mexicana de la Industria de la Construcción, which provides an average value for the sector of 3.52.

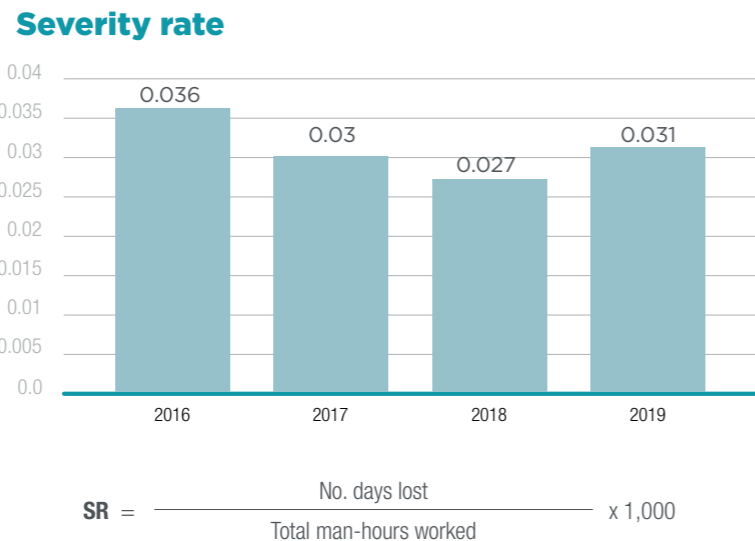
It is important to note there were no fatalities.

Disclosures 403-9 a. and b.							
		Energy	Oil	Construction	Highways	Fuels	Rates*
i. Fatalities	Employees	0	0	0	0	0	0.00
	Contractors	0	0	0	0	0	0.00
ii. Permanent incapacitating injury*	Employees	0	2	0	0	0	0.01
	Contractors	0	0	0	0	0	0.00
iii. Temporary incapacitating injury**	Employees	0	5	9	4	1	0.47
	Contractors	1	0	0	0	0	0.01
v. Man-hours worked	Employees	131,977	1,810,712	5,325,089	630,515	55,800	
	Contractors	47,075	-	412,378	557,824	22,600	

### Incident rate



$$IR = \frac{\text{No. incapacitating accidents}}{\text{Total man-hours worked}} \times 200,000$$



## Transportation Division

### 103-1

The health and safety of our collaborators in the Transportation Division is a pillar of our business model. A healthy workforce with minimal exposure to risk means we can meet the needs of our users and the market, maintaining the continuity and functioning of our value chains. Railroad transportation is a highly specialized economic activity, therefore high incident rates at our operations and the occurrence of occupational diseases are problems that directly affect our collaborators and the continuity of our business. In this regard, to mitigate negative impacts on the health of our collaborators and reduce accidents in our operation, we are working to identify the risks to health and implement mechanisms to control these risks.

Occupational health and operational safety risks are present and relevant in our operations, which include operating the tourist passenger train on the Q line between Chihuahua and Sinaloa, the operation of our overland freight transportation network throughout Mexico, and the operation of our routes in Texas and Florida in the United States. Taking this into account, we have programs, activities and

initiatives in all the geographic regions where we operate and they are applicable to our collaborators and contractors.

### 103-2, 103-3, 403-1, 403-8

Our goal in the Transportation Division to reduce the incident rate and guarantee reliability in the handling of freight has been achieved gradually through prevention programs, like the Zero Accidents program, Cuidado con el Tren (Watch Out for the Train), health fairs and courses for first responders on handling chemical materials.

The Grupo México Transportation Division Operations Department sets guidelines, policies, goals and metrics to avoid, reduce and mitigate accidents in all our operations. Management routinely reviews the daily metrics to identify and analyze the incident trends and occupational health and safety risks to then determine the actions necessary to safeguard and guarantee the wellbeing of each of our collaborators.

At GMXT, we are committed to promoting safe work environments for all our collaborators. We have adopted occupational health and safety management systems designed to meet and surpass the requirements of the different regulatory agencies in the countries where we operate. Although these systems are not mandatory, we have implemented them to ensure the physical integrity and wellbeing of all our collaborators, contractors and clients. Our management systems were developed taking into consideration all

applicable regulations issued by the Mexican Department of Labor and Social Welfare, the US Federal Railroad Administration, and the US Occupational Safety and Health Administration, ensuring observance of these standards through field audits and supervision.

### Policies and commitments

The Transportation Division has two guiding policies in workplace health and safety. First, our Safety Policy, which lays out the goals in safety and accident prevention at GMXT. We are committed to identifying and eliminating all workplace risks and to preventing accidents and all types of occupational injury. Second, our Accident Response Policy is the company's guiding principle, describing the protocols and actions to follow and implement in the event of an accident.

Both policies outline the commitments and goals of the company in terms of occupational health and safety, and designate the roles that are responsible for safety, occupational health and accident response.

In addition to these two policies, we have a Chemical Emergency Response and Remediation Plan, which establishes the roles and responsibilities of company management to ensure emergencies involving chemical or hazardous materials are handled effectively to reduce and minimize risks. Part of this program includes methodologies and courses of action for first responders in the event of railroad accidents involving hazardous materials.

All our policies reaffirm the commitment of the Transportation Division to identify and eliminate all risks at our work centers, to prevent occupational injuries and to set the highest standards and practices in occupational health and safety in our operations. Our policies and manuals clearly outline our commitment to build a culture of prevention, zero accidents and ongoing improvement.

### Goals and objectives

Our goals in occupational health and safety are public and are stated in our corporate goals presented in this report. It is important to note that our objectives include:

- Being a leader in safety.
- Acting quickly to prevent the loss of human life in the event of an accident.
- Control and eliminate safety risks effectively.

See the section on Performance for details on our progress towards achieving the 2022 goals.

### Roles and Responsibilities

The Safety Department, part of Operations, is responsible for the health and safety management of our collaborators. Both departments provide leadership, resources and visibility on issues of occupational health and safety throughout Grupo México Transportation. Health and safety incidents are presented monthly through performance reports and quarterly at the meetings of the Board of Directors.

The maximum authority on issues of occupational health and safety is the Chief Executive Officer, who reports directly to the Chairman of the Board of Directors. The CEO is responsible for the performance of our environmental management, the health and safety of our employees and that of the communities through which the train passes.

Meanwhile, in terms of the management and supervision of operational issues, the CEO is directly supported by Operations and the Safety Department.

The Chief Operating Officer supervises the Head of the Safety Department and sets the strategy, policies and actions necessary to improve the performance of the company and ensure our collaborators have a safe work environment. The Head of the Safety Department has a team of managers, coordinators and analysts, and determines the mechanisms for accident prevention and response. They also determine the actions to take in the event of incidents at level crossings and their primary task is to coordinate the response to incidents involving hazardous materials, track incidents and unsafe situations along the right of way. The Safety Department has an Operational Safety Manager and an Occupational Health and Safety Manager and is responsible for the occupational health and safety personnel in all our operating regions in Mexico. In the United States, our occupational health and safety supervisors report to the CEO of the subsidiary corresponding. Also, these occupational health and safety supervisors in Florida and Texas are in constant communication with the Safety Department and share best practices to unify processes and improve the work throughout the organization. The managers that report directly to the Safety Department have coordinators and heads of compliance, administration and prevention to prevent, reduce and mitigate risks and to respond to accidents along the more than 11,000 kilometers of track that Grupo México Transportation operates.

Given the nature of railroad operations, the Safety Department divides the territory into districts and regions. This department also works in constant coordination with the team in the Corporate Projects Department in regards to accidents at level crossings, which is a core issue for our railroad transportation operations.

### Resources, programs and initiatives

Grupo México Transportation has made efforts in recent years to make our operations even safer. We have invested more than US\$188,000 in occupational health and safety at our operations. As part of our efforts to make our network safer for our users and the communities through which we pass, we continued our signaling and installation of barriers program in 2019, investing US\$5.29 million in 25 priority level crossings on our network in Mexico.

Every year, we invest large amounts of work and resources to make the level crossings even safer and to improve the co-existence of the railroad with the urban and population centers. In 2018 and 2019, we invested US\$10.49 million and we plan to continue in 2020. Our goal is to signal and improve the safety at 67 priority level crossings in just three years.

In addition to signaling level crossings, we are continually working with the federal and local governments to communicate to the public how important it is to not “beat the train”. The railroad has priority at all crossings and to educate drivers, we promote positive and responsible attitudes about roadway culture. Our program Cuidado con el tren (Watch out for the train) is also part of our efforts to reduce accidents at level crossings. To continue, we are working in collaboration with the Mexican authorities to combat train robberies. Thanks to coordination with the Mexican federal government, the Department of Defense, the Department of the Navy and other public safety agencies, and the hard work of our legal and railroad protection teams, we reduced train theft by 15%. This ensures that the freight we transport reaches its final destination, and that the safety and integrity of our collaborators is not compromised. Additionally, our work in occupational and operational safety has produced results and in 2019, personal accidents decreased 9.4% at Ferromex and Ferrosur, compared with 2018. The signaling and

installation of barriers at 52 priority points reduced accidents at level crossings by 22% and 52% since the project started. At the crossings where we have installed signals and barriers, accidents decreased 73%.

The initiatives of Grupo México Transportation to promote safety in the communities through which we pass include that in 2019, the Safety Department and the Occupational Safety Department of Intermodal México organized a workshop for first responders on responding to accidents involving bleach, with 281 participants from the industry and organizations, Civil Protection teams from the states and municipalities, and the Mexican Red Cross. This event was possible thanks to the support of Chemours and the Chlorine Institute, which provided instructors, material and demonstration tanker cars to make the training more realistic and effective.

In complement to the initiatives described, we continued to hold Safety Weeks in 2019, in which 5,078 unionized and non-union collaborators participated. These Safety Weeks address topics on how to implement best practices in railroad safety, offer talks on occupational health and share information to make our workplaces safer and prevent accidents. In addition to the Safety Weeks, which have an operational focus, we also continued with health fairs in 2019 in different regions to promote caring for the health of our collaborators. The topics addressed at these health fairs include weight control, high blood pressure, managing diabetes and promoting nutrition programs for our collaborators.

Additionally, the Texas Pacifico and the Florida East Coast (FEC) in the United States collaborated closely with the organization Operation Lifesaver to promote safety on the train tracks. The FEC participates in an Awareness Week each year on train safety, held together with the National Railroad Safety Week in association with the local police, handing out pamphlets on safety at designated crossings, where more than 2,000 conductors received this information.

**Hazard identification, risk assessment and incident investigation 403-2 / Worker participation, consultation and communication on occupational health and safety 403-4 / Worker training on occupational health and safety 403-5**

The Transportation Division uses a Workplace Safety Analysis to identify hazards and assess occupational safety risks, and also to define the controls to mitigate or eliminate these risks. As a result of this process, we have developed and revised our workplace safety procedures for the tasks performed in our operations. Also, employees have different mechanisms to report unsafe conditions and actions, which include reporting directly to their immediate supervisor or Human Resources representative, email and the intranet webpage, inspections and visits by the local hygiene and safety commissions, and reports or complaints can be submitted anonymously through our reporting line.

Our collaborators are invited to volunteer to join the health and safety committees, which meet monthly. These committees are made up of 50% unionized employees and their union representatives, and 50% non-union employees. These committees participate in accident investigations and conduct visits of the company areas to check the working conditions. The findings are logged and assigned to the different supervisors for the implementation of corrective actions. This activity engages collaborators to be proactive in improving the occupational health and safety management system, and to identify training needs.

The GMXT Administration and Operations departments are constantly analyzing and evaluating the effectiveness of the company's programs and mechanisms to improve the health and safety of our collaborators. Based on an analysis prepared by Operations and the Safety Department, the company began to implement a behavior-based health and safety system in 2019, which will complement the current policies and procedures with actions that will reinforce the commitment of our collaborators to safety. This program emphasizes that it requires more than mechanisms and protocols to prevent and reduce accidents. At GMXT, our management approach in health and safety is evolving toward a complex system where we understand the risks associated with our industrial activities, but also the risks resulting from the behavior of our employees at all levels of the organization.

We have processes to provide information and receive feedback from our collaborators to encourage them to engage in the implementation and evaluation of the Occupational Health and Safety System. These processes include ongoing trainings and daily talks on occupational health and safety, informational bulletin boards, online platforms and performance reviews, where company management communicates directly with our collaborators to hear their concerns about the risks associated with occupational health and safety.

The Transportation Division has a process for investigating incidents involving workplace safety, conducted through the local hygiene and safety commissions, which are made up of unionized and non-union company personnel according to Department of Labor and Social Welfare regulations in Mexico. These investigations aim to identify the root cause of the incident and determine corrective and preventive actions. All initial investigations of incidents are started within 24 hours following the event. We had 12 safety commission subcommittees in 2019, with the following structure:

<b>Hygiene and safety commissions Grupo México Transportation</b>	Master Locomotive Mechanic
	Infrastructure Coordinator
	Chief of Operations / Transportation Manager
	Chief Track Machinist
	Master Mechanic
	Warehouse
	Electrical Supervisor
	Telecommunications and Signage Personnel
	Safety Personnel
	Nine unionized employees

We **invested US\$10.49 million** in 2018 and 2019, which we are expecting to continue in 2020.

Our goal is to **signal 67 priority level crossings in just three years**, making these crossings even safer.

The risk identification and assessment and incident investigation processes, as well as follow-up on reports of unsafe conditions and actions, are reinforced with ongoing training and regular audits and inspections. In 2019, the Safety Department continued to unify the methodologies and accident investigation protocols throughout the system, so that through understanding the “Five why’s”, we can more easily identify why an accident happens in our operations, under the goal of keeping all our collaborators safe. Since the consolidation of GMXT, we have initiated a project to unify our management processes in Mexico and the United States, taking into account the best practices of each operating region and internationally.

### Occupational health services 403-3 / Promotion of worker health 403-6

We have medical services and specialized information available on preventing illnesses and accidents in our workplace to keep our collaborators, contractors and clients safe at our operations, without being exposed to risks and so that our contractors and clients can perform their tasks at our facilities safely.

We provide regular medical checkups and access to general healthcare services to guarantee the wellbeing and safety of everyone working at all our facilities, including contractors and clients. The medical service at our operations and corporate offices is outsourced and managed by the Safety Department, which also guarantees confidentiality of our employee data and we ensure the medical records for the people working at our facilities are safeguarded by experts. Our workplaces have a daily health check service for crews starting trips in each district on our railroad network.

We have specific programs in place at our facilities and operations focusing on caring for the health of our collaborators and to monitor and prevent illnesses from exposure to noise, vibration and other elements related to the workplace. We are constantly promoting the overall health of our collaborators, disseminating relevant information on illnesses, such as high blood pressure, diabetes and obesity,

and we are constantly emphasizing the importance of nutrition and its influence on our state of health. We run vaccination campaigns and routinely check the aptitudes and health of our collaborators with physical testing to detect fatigue or the consumption of alcohol or other drugs.

All our programs are focused on the early detection of risk factors that could generate health problems for our collaborators. Medical services are available at all our sites and for all work shifts; personnel and contractors receive attention from qualified medical personnel at our infirmaries. We also hold events known as Health Fairs, which include vaccination campaigns, medical studies and conferences and talks on topics such as weight control, high blood pressure, diabetes and nutrition.

### Worker training on occupational health and safety

#### 403-5

Our 11,065 employees are the driving force that makes our company successful. We believe the key element to continue growing is to support their personal and professional development. We recognize that achieving long term goals is possible through the talent of our collaborators, therefore it is essential that our people be highly qualified, motivated and aligned with our values. We consider that a workforce with technical expertise, capable, flexible and collaborative delivering excellence in service will reduce our labor costs and accidents, which will help us to reach

greater efficiency. We plan to improve the productivity of our workforce through more efficient training programs. In 2019, we delivered more than 479,612 hours of training to our employees. We hope to continue to bring our people into a culture aligned with our vision, purpose and key values, to operate efficiently and safely, and to help implement our long-term strategy.

A significant portion of the training delivered in 2019 was focused on workplace health and safety, which resulted in a decrease in personal accidents. In general, the topic areas most covered in the trainings were:

- Hoisting
- Cut and welding
- Risk assessment
- Accident investigation
- Behavior-based safety

Additionally, as we do every year, in 2019 we reinforced the knowledge and skills of our collaborators in reference to railroad transportation company codes and regulations where supervisors and track personnel learn and consolidate their knowledge on the operation of the railroad infrastructure and the risks to which our personnel are exposed. This helps us to monitor track conditions more efficiently and the performance of our trains and movements to reduce accidents caused by deficiencies in the infrastructure. This also helps us to prioritize the maintenance of the railroad system.

Work-related injuries 403-9 / Work-related ill health 403-10

Accidents in the Grupo México Transportation Division by region and type of injury				
Region	Permanent incapacitating injury*	Temporary incapacitating injury**	Other injuries reported to the authorities***	Total
Mexico	5	249	0	254
United States	0	27	0	27

\*Workplace injuries that stop work and which prevent our collaborators from returning to their place of work.

\*\* Injuries that result in temporary leave and which force the injured collaborator to miss more than one day of work.

\*\*\* Injuries that, because of their nature and the regulations applicable in the countries where we operate, are required to be reported to the authorities. These injuries are reported regardless of the number of work days lost.

Most frequent types of injury from workplace accidents, Transportation Division, 2019	
Incapacitating injuries	Occupational diseases
Superficial trauma	Fractures
Dislocations and sprains	Contusions
Back pain	Deafness
Burns	Conjunctivitis from exposure to chemicals
Wounds	Carbon monoxide intoxication

Man-hours worked by region, Transportation Division, 2019	
Region	Man-hours worked
Mexico	25,467,614
United States	2,901,318
Total	28,368,932

Incident rate (IR), Transportation Division 2019

Region	Man-hours worked
GMXT	1.98
Mexico	1.99
USA	1.86

Severity rate (SR), Transportation Division 2017-2019

2017	2018	2019
1.15	1.10	0.50

\*The 2018-2019 variance is due to the consolidation of information from subsidiaries that were not previously included in the calculation.

Occupational disease rate, Transportation Division 2017- 2019

2017	2018	2019
1.18	1.20	0.20

\*The 2018-2019 variance is due to the consolidation of information from subsidiaries that were not previously included in the calculation.

Unfortunately, four collaborators and three contractors in the Grupo México Transportation Division lost their lives this year. Four of these fatalities were due to outside causes: an accident at a level crossing and a landslide. The accidents caused by unsafe actions were investigated to identify the root cause and prevent loss of life in the future. There were no fatalities from medical issues caused by work activities in 2019.



**HUMAN  
RIGHTS**



## HUMAN RIGHTS

### 103-1

Today, companies, and not just governments, are responsible for protecting and respecting human rights. At Grupo México, we respect and promote compliance with all regulations and requirements set by the authorities for the industry, guaranteeing the human rights of all our collaborators and those of the communities where we operate. We acknowledge that human rights are essential for the sustainability of our operations and we are committed to developing and implementing the policies and procedures necessary to guarantee these rights are respected. This material topic is present throughout our value chain. It includes both the potential effects of our operations on the nearby communities and also the working conditions of all Grupo México collaborators.

### 103-2, 103-3

The Mining Division addresses respect for human rights through a series of policies and procedures that provide concrete mechanisms to identify, prevent, mitigate, and as necessary, correct possible negative impacts of company operations on human rights. These mechanisms can be divided into two main categories: those designed to guarantee that the human rights of our collaborators are respected, which are managed primarily by the Human Resources, Occupational Health and Safety and Safety departments; and those designed to guarantee respect for the human rights of our neighbor communities, managed primarily by the Community Development department.

### Policies

The principal policies applicable in this area are:

### For Grupo México

1. General Human Rights Policy
2. Code of Ethics
3. Complaints Procedure



Our Human Resources, Occupational Health and Safety, and Safety departments manage mechanisms that guarantee the human rights of our collaborators are respected.

### For the Mining Division

4. Policy on respect and the wellbeing of our collaborators
5. General Sustainable Development Policy (includes the Community Care Service)
6. Corporate Contract Management Policy (labor obligations of suppliers)
7. Protocols on Access, Safeguarding the Physical Wellbeing of People and Properties, Use of Force, and Supervision and Audits
8. General policy on workplace health, hygiene and safety

Grupo México published its General Human Rights Policy in 2019. This policy provides the backbone of the company's strategy in this area, and complements the commitments outlined in the Code of Ethics. This policy details the commitment of Grupo México to protect and respect the human rights of our collaborators and the communities near our operations. It states the company will operate in adherence of Mexican and international laws, regulations and codes, particularly noting the Universal Declaration on Human Rights, the International Labor Organization Convention and the United Nations Declaration on the Rights of Indigenous Peoples. It also outlines a series of concrete commitments and notes that all employees of the company and its subsidiaries are subject to the policy, which also extends to providers of goods and services. The policy explains the company will give preference to providers who share our values and our commitments.

**In 2019 we published the General Policy on Human Rights, the backbone of our strategy for this topic.**

The General Human Rights Policy was published on the Grupo México website, accompanied by a letter from the Vice-President to all employees, explaining the commitments undertaken by the company in this regard. Within Grupo México, our collaborators received training on human rights and the implications of the new policy (see statistics in GRI indicator 412-2). Additionally, the Community Development department reaffirmed in 2019 the company's commitments laid out in the Human Rights Policy through dialog and interactions with stakeholders in the local communities, and with the development of social programs, which are ongoing and permanent fixtures (see the chapter on Local Communities, page 309).

### Roles and responsibilities

Promoting respect for human rights is paramount within Grupo México, therefore all employees, at all levels, and also suppliers and providers, are required to comply with the company's principles and policies on human rights. Various departments are involved in managing these topics, while the principal roles in the enforcement of the Mining Division's policies and procedures to ensure the human rights of our collaborators and local communities are respected are:

- Vice-President, Human Resources
- Vice-President, Community Development
- Vice-President, Occupational Health and Safety
- Ethics and Discipline Committee (see the chapter on Professional Ethics and Integrity, page 73 for details about this committee)

### Due diligence process

The company uses a human rights due diligence process in our risk assessment processes. The due diligence process seeks to identify, prevent, mitigate and, as necessary, correct potentially adverse impacts on the human rights of both our neighbor communities and our company employees. This process can be divided into two main areas:

- a. community human rights
- b. employee human rights

## A. Communities

The community human rights due diligence process of the **Mining Division and the Infrastructure Division is made** up of two components:

1. Participative shared value diagnostic process and management plans
2. Community Care Service







**a.1. Participative shared value diagnostic process and management plans**

The community linkage framework<sup>1</sup> contains various elements -primarily the shared value diagnostics and the definition, monitoring and assessment of our management plans- that are directly related to the human rights due diligence process. The shared value diagnostics help the company to identify the risks present at each business unit, to then design and implement actions to mitigate potential negative impacts and optimize the positives. These diagnostics are prepared at the start of each project and are then updated every two years at all our business units in Mexico and Peru. One of the five components required to prepare the diagnostic is mapping the risks and impacts from the operation. It should be noted that the company uses a risk matrix that measures, on a scale of one to five, the severity and frequency of social impacts, which include the risks associated with human rights.









The process for preparing the shared value diagnostics includes ongoing consultations. Grupo México seeks to identify the concerns, complaints and needs of the community, as expressed by the members of that community. The company holds focus groups, workshops, semi-structured interviews and surveys with a representative sample of the population, taking into account previously defined spheres of influence. The questions asked of the participants focus on 12 areas that the Community Development department has identified as key, each of which is related to human rights. In addition to the participation of adults in this exercise, the company holds focus groups with youth aged 16 to 25, and workshops with children aged 8 to 15.

The members of the community (children, youth or adults) are encouraged to voice any concern or complaint throughout the consultation process, particularly in relation to possible negative impacts of the company's operations on their human rights. Members of charity organizations also participate in the consultation and share their perspectives, providing additional input into the design of the Social Management Plans.

The Social Management Plan incorporates all the information gathered for the shared value diagnostic and prioritizes the issues to design programs and projects that will meet the needs expressed by the community. A summary of the 12 key topic areas in the shared value diagnostic is offered following, along with their relationship to the United Nations sustainable development goals, and the projects implemented in 2019. As noted from the table, each key topic area has an impact on the human rights of our communities.

Key topic area	UN Sustainable Development Goal	GM programs and projects		
 Environmental transformation	<b>15. Life on land</b>	Recovery of spaces and reforestation Land ecosystem sustainability (flora and fauna) Environmental culture		
	<b>14. Life Below Water</b>	Protection of the oceans and coastlines Artisanal and sustainable fishing		
	<b>13. Climate action</b>	Mitigate, adapt and reduce the effects of climate change		
 Water management	<b>6. Responsible water management and sanitation for all</b>	Integrated management of water resources Preservation of water-related ecosystems Community participation in water management		
 Energy management	<b>7. Affordable, reliable, sustainable and modern energy for all</b>	Clean and renewable energies		
 Educational competencies	<b>4. Quality education</b>	Performance-based educational programs, reading and/or basic competencies ICT competencies Certification of academic and professional competencies Competencies in reading and mathematics Functional competencies of youth and adults in literacy and basic math Adult literacy Enrolment in elementary, middle school, high school and higher education		
		<b>1. End poverty</b>	Basic services in Grupo México neighborhoods Living conditions and expenses Household income and financial equity	
			<b>9. Innovation and infrastructure</b>	Resilient, sustainable and quality infrastructures
		 Wellbeing and quality of life	<b>10. Reduce inequality</b>	Vulnerable groups and indigenous communities Human and artistic development Quality social assistance Work-life balance
			<b>2. Zero hunger</b>	Food security Food insecurity and malnutrition
 Prevention in health and safety	<b>3. Guarantee good health and promote wellbeing</b>	Health, addiction prevention and reproductive health Cardiovascular diseases, cancer, diabetes or chronic respiratory illnesses Sports Substance abuse Road safety Traffic accidents Sexual and reproductive health services (family planning)		

<sup>1</sup> See the chapter on Local Communities, page 309, for more information about the community linkage model.

 Gender equality	<b>5. Achieve gender equality and empower all women and children</b>	Gender equality in community services and projects
		Empowering women
 Citizenship and Development	<b>11. Sustainable communities</b>	Involvement in public policy, management plans or institutional development programs
		Community structures fostered by the company (Committees)
		Reduction and management of social risks
		Refurbished public spaces
 Quality education	<b>12. Sustainable production and consumption</b>	Urban solid waste management
	<b>16. Peace, justice and strong institutions</b>	Culture of recycling
 Quality education	<b>4. Quality education</b>	Justice and human rights
		Participation of NGOs, Public Institutions and groups
		Competency in reading and mathematics
		Skills in information and communications technologies
		Equal opportunities for men and women, rural and urban areas, levels of wealth and vulnerable groups
		Literacy and basic mathematical principles
		Civics, sustainable development, gender equality and human rights in study plans, teacher training and student evaluations
Access to the internet, computers for the classroom, and infrastructure and materials adapted for students with disabilities		
 Productive skills	<b>13. Climate action</b>	Organized teacher training
		Achievements and recognitions according to study plans and teacher and student training, at Grupo México schools
		Mitigate, adapt and reduce the effects of climate change
 Productive skills	<b>2. Zero hunger</b>	Sustainable farming
		Better income for producers
		Sustainable agricultural practices
 Work and economic growth	<b>8. Decent work and economic growth</b>	Training in job skills and competencies
		Entrepreneurship and economic incentives
		Unemployment
		Work connections
 Work and economic growth	<b>8. Decent work and economic growth</b>	Hiring labor or suppliers

The programs and projects included in the Social Management Plan run for one year. A monthly report is generated for each, which the Community Development department reviews and shares with the operational teams at the different business units. The company evaluates the performance of the projects taking into account not only numerical indicators (e.g. budget spending, service hours, number of participants), but also the opinions of the participants or recipients and volunteers who participate in the projects. This regular evaluation process helps the company to verify whether the projects are achieving the expected results and whether any adjustments

are needed. In the event of any identified negative impact on the human rights of our communities, this process will aid in determining whether the impact has been mitigated or resolved satisfactorily. Programs and projects that have achieved their goals at the end of the first year are renewed for a second year until the next Shared Value Diagnostic, which will form the basis for a new Social Management Plan.

The **Community Care Service** was developed in consultation with the United Nations Office of the High Commission on Human Rights in Mexico.

### a.2. Community Care Service

Members of the community can communicate requests, concerns, complaints, emergencies or disputes to the company through the CCS. This service is a vital part of the due diligence process as it is a channel of communication between the community and Grupo México that is always open, whereby any member of the community can share with the company their complaints or concerns about potentially negative impacts on their human rights related to the company's operations.

The CCS was developed in consultation with the United Nations Office of the High Commission on Human Rights in Mexico, with which Grupo México met frequently during 2018 and 2019 to receive feedback on different components of the service, such as the design of the publicity material, mechanisms for connecting with the population and how to address specific cases. The Office of the High Commission also offered a workshop on Companies and Human Rights for Community Development department personnel in Mexico and Peru. The CCS started operations in Mexico in February 2019, and in Peru in October 2019, with an average resolution time of 15 days in Mexico and five days in Peru. In 2020, the CCS will also be rolled out at ASARCO and in the Infrastructure Division. The process for responding to the incidents reported via the CCS is described following:

**Dissemination:** The CCS is extensively publicized among the communities and business units in the local language via both print and digital media (social networks and by email), presentations with volunteer groups, through Community Development activities and programs, as well megaphones and other publicity means provided by the company, as necessary.

**Receiving reports:** The CCS has five channels for receiving information: a toll-free phone number with 24/7 service 365 days a year, an email address, WhatsApp, physical boxes installed at the Casa Grande / Casa Nuestra Community Centers, and also the 180 members of the Community Development field team and operations personnel who have contact with the community.

**Logging and notification:** On the principle of legitimacy or good faith, all incidents reported to the CCS involving the company are considered valid and logged by the CCS coordinators (one in Mexico and one in Peru), who then notify the corresponding areas, according to the nature and seriousness of the case.

Incidents are logged and classified according to the following:

**Level 1. Request.** Proposals or requests for materials, products or support action, without being a complaint or directly related to operations.

**Level 2. Concern.** Communication about the company, usually presented in the form of a question, asking for information or clarification.

**Level 3. Complaint.** Objection or complaint resulting from a disagreement or nonconformity related to the company's operations, which may include a request to compensate damages, real or perceived.

**Level 4. Emergency.** Situation that must be addressed immediately, as it could potentially have immediate impacts on health or the environment, in addition to causing a possible violation of laws or company policies.

**Level 5. Dispute.** Conflict between the company and the community involving the use of land or customary rights of the community or indigenous peoples.

In addition to classifying incidents by type, they are categorized according to the topics in the Grupo México Materiality Matrix, which in turn are related to human rights.

**The Community Care Service** started operations in Mexico in February 2019, and in Peru in October 2019, with an average resolution time of 15 days in Mexico and five days in Peru.

**Management and resolution:** When needed, Grupo México employees gather detailed information through field investigations and data collecting to analyze and take action on the case. A first contact is made with the user within 48 hours of the user contacting the CCS, to inform them of the status of their case. Based on this information, the Grupo México department assigned to the case defines and carries out an action plan. The local government agencies are called in, when necessary. The department assigned the case also monitors the execution of the measures defined and determines their efficacy in solving the problem.

When the report has not been made anonymously, Grupo México (local community development personnel and from other departments, as required) establishes a constructive dialog with the user, and regularly updates them on their case, from the initial assessment to the implementation of the resolution actions. When a case has an impact that would go beyond the individual report or complaint, the company informs key local players, the Community Committee for example, about the preventive or corrective measures taken. The purpose is not only to update them on the case, but also to receive their feedback.

**Reporting:** The CCS coordinators prepare regular reports with statistics on cases by type / priority / status, details of open cases, and successful cases with evidence of response and testimonials. This information is shared with the Sustainable Development Committee, via the Community Development Department, and serves as a tool for improving the Grupo México risk management systems (see the chapter on Corporate Governance, page 62, for details about the Sustainable Development Committee).

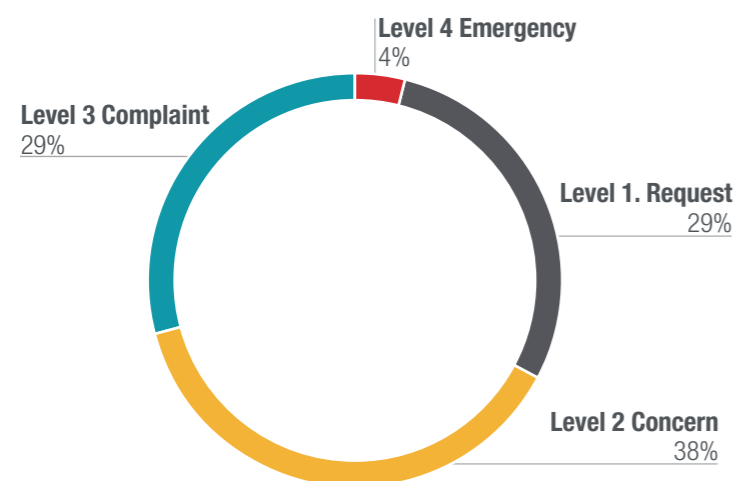
The CCS helps Grupo México not only to receive the concerns or complaints of members of the community in regards to their human rights, but also to process these complaints to define, implement, monitor and evaluate the mitigation or corrective measures that may be necessary.

The CCS received 123 incident reports in 2019, all of which were resolved before year end with an average response time of 14 days, or channeled to other mechanisms within the company on being related to administrative processes, like the Reporting Line, which receives reports of issues related to the company Code of Ethics. Only one complaint remained open.<sup>2</sup> Of the 123 incident reports, 82 were Level 1 or 2 (requests and concerns) and 41 were Level 3 or 4 (complaints and emergencies), while no Level 5 (disputes) were reported.

<sup>2</sup> In Ite, Peru, the company has generated various wetlands as part of our environmental remediation actions. Although in the beginning cattle were allowed to graze there, the number increased significantly, compromising the integrity of the wetlands. This meant the company needed to restrict access. The cattle ranchers were unhappy and various possible solutions were proposed, which are in the process of being finalized.

The incidents classified by their level and category are presented following\*:

### Incidents reported, by level



Origin	LEVEL 1 REQUEST	LEVEL 2 CONCERN	LEVEL 3 COMPLAINT	LEVEL 4 EMERGENCY	LEVEL 5 DISPUTE	TOTAL
Communities in Mexico	32	45	24	5	0	106
Communities in Peru	3	2	12	0	0	17
<b>Total</b>	<b>35</b>	<b>47</b>	<b>36</b>	<b>5</b>	<b>0</b>	<b>123</b>

CATEGORY	REQUESTS AND CONCERNS, BY CATEGORY	COMPLAINTS AND EMERGENCIES, BY CATEGORY	TOTAL, BY CATEGORY	%
Recruitment and offers of services	28	0	28	23%
Community supports	16	0	16	13%
Access to information	15	0	15	12%
Incidents involving third parties (suppliers and contractors)	4	10	14	11%
Maintenance, damage or risk to property	8	7	15	12%
Other	2	9	11	9%
Code of Ethics	3	5	8	7%
Labor issues	6	0	6	5%
Waste and effluents	0	4	4	3%
Emissions	0	3	3	2%
Accounts payable	0	3	3	2%
<b>Total</b>	<b>82</b>	<b>41</b>	<b>123</b>	<b>100%</b>

\* Incidents may fit into more than one category and are then classified according to the primary category.

Six cases from 2019 are presented following (three emergencies and three complaints) showing different key aspects of the service and resolution process. In the different cases, the areas of the company involved depend on the specific issue, but the constant is the Community Development department, which is part of the process from detecting situations in the field, including before these are presented directly to the CCS, and during the response stage, accompanying the dialogs, communicating the outcomes to the interested parties, and receiving their feedback to share this with the company.

1. Chalchihuites, Zacatecas, Mexico is a town with a population of approximately 10,000 inhabitants where the company has a mine exploration project. Embers from a works project on company land started a fire on a part of a neighboring property. Company personnel responded to the incident immediately to control the fire, with the help of neighbors. The case was reported to the CCS for follow-up. We dialoged with the property owner, reaching agreement on compensation for the damages, closing the matter to their satisfaction.
2. Sulfuric acid is a major byproduct in copper mining and is used in this industry in the leaching process (water and sulfuric acid are used to recover metals present in mineralized rock) and also in the chemical industry to make detergents and fertilizers for farming, among other uses. In the first instance, sulfuric acid is transported by rail and by road from the smelter, where it is produced, to the mines. The company contracts out this transportation service.

While driving in the state of Sonora, the driver of one of these trucks noticed a leak. Following procedure, they stopped at the side of the highway and notified their superiors and the authorities, activating the safety protocol. As a preventive measure, Civil Protection authorities closed the highway to traffic for the clean-up to be carried out safely.

### 3. The social side of an operational incident (Level 4. Emergency)

The Guaymas Port Terminal is located in the state of Sonora, Mexico and from here, the Company ships its products for export. An incident occurred in 2019, the environmental and legal details of which are provided in the chapter on Waste, page 159.

To fully comprehend and address the social aspect of this event, the Vice-President of Community Development, accompanied by the local community team, the head of the CCS and personnel from other related areas, traveled to the site to meet with the local and state authorities, and also with groups of businesspeople from the tourism industry and fishermen, groups that are highly representative as one of the principal economic activities of the port is tourism. The objective of these meetings was to find out, firsthand, what had happened, the actions taken by the company, and to ensure this would not happen again, and also to listen and respond to concerns.

The CCS ran a publicity campaign and brought in six additional people from the Community Development team. There were no reports via the digital channels as the cases were gathered in the field. These community dialogs were the basis for defining the actions to take. The company decided to offer additional support, like the production and dissemination of a promotional tourism video for Guaymas and launched a Call for Projects for Fishermen, seeking to support tourism service providers and the local fishermen. It was also identified that one of the main problems with the water in the area was related to flooding, therefore the company provided support with a study, "Master plan for controlling flooding in Guaymas" to assist the authorities in resolving this issue.

Although there was no community contact for this event through the CCS, the Community Development team reported the situation immediately for it to be logged and monitored, verifying that the proper people had been duly notified, primarily in case they needed additional support, and verifying that the incident had been resolved according to the instructions given by the authorities. The company follows up not only on cases that involve company processes and employees, but also those that involve key links in the value chain.

### Examples of cases: Level 3. Complaint

1. The company's largest mine in Mexico is in Cananea, Sonora, a city with a population of a little over 30,000 inhabitants. Besides the mine itself, the company has various properties there (housing and lands) some of which are occupied by company employees and their families, lands on which public spaces for the community have been built, like Tamosura Park and a few vacant buildings.

A local resident was concerned that the deterioration of one of these vacant properties could cause damage to the neighboring home. In response to the situation, personnel from the company's Community Development and Services department visited the person in their home, accompanied by members of the local Civil Protection to assess the condition of the company property. It was determined that various actions could be taken as a preventive measure to reinforce the structure and the concerned neighbor was informed of the plan. The company carried out the work and on completion, invited the concerned neighbor to see the results. She was satisfied and appreciated the attention given to the matter.

2. In Ite, a town in Peru with approximately 5,000 inhabitants in the province of Jorge Basadre, the company created various wetlands as part of an environmental remediation plan. Some local residents were annoyed as they had noticed an increase in mosquitos in the town, which they attributed to the wetlands.

The Environmental Affairs and Community Development departments met with the respective authorities and community representatives to discuss the situation and it was agreed the company would extend the periodical fumigation from the wetlands to the town. This was done in coordination with the local authorities, resolving the situation. Also, these actions were announced on local media to inform all residents of the actions taken.

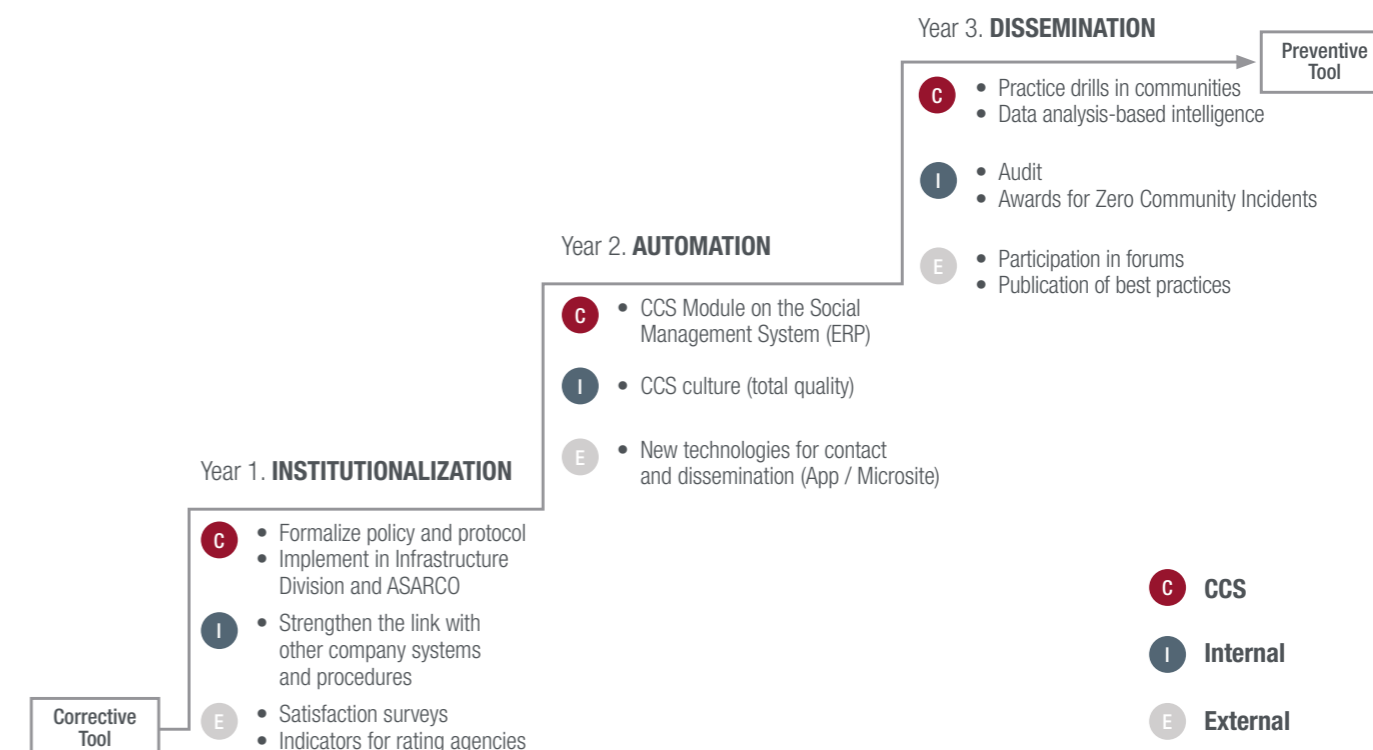
### 3. Step-by-step response to an incident (Level 3. Complaint)

#### Context

Many communities neighboring our mines have been created with the start of the mining operation in the area. Sometimes, various homes are situated not close to extraction or ore processing areas, but near peripheral processes.

In the following case, the home in question is situated near the silos or warehouses for the lime used in a part of the process to separate the copper, where there are also roads and piles of earth.

DATE	ACTION
7/Mar/2019	A resident of Cananea, Sonora, Mexico, calls the CCS toll-free phone line annoyed because they are noticing dust that appears to be coming from the operation. The report was generated and the local Community Development Coordinator was notified of the complaint.
7-9/Mar/2019	That same day, a member of the Community Development team visits the person at their home to dialog and to gather more information about the case. They visited the location three days in a row and the situation did not present, reaching agreement with the person that they would call when it happened.
11/Mar/2019	As agreed, the person calls and Community Development personnel immediately traveled to the residence, they take photographs and prepare the report to notify the local Operations department of the situation.
12/Mar/2019	Community Development communicates with the person to inform them of the follow-up on their case.
14/Mar/2019	Operations designates the area corresponding to address the issue, and the area prepares an action plan, which is shared with the local resident.
18/Mar/2019	Actions are taken to resolve the situation, including watering and the installation of dust suppressors.
19/Mar/2019	The person is shown evidence of the actions taken and they are reminded that the CCS is available to them in the event of any other incident. The person expresses appreciation for the handling of the matter and the response time. The complaint is closed.



2023 Plan - CCS

## B. Collaborators

The employee human rights due diligence process in the Mining Division has two components:

- i. Workplace survey
- ii. Reporting procedure

### b.1. Workplace survey

The workplace survey is an instrument the company uses to assess the satisfaction and to hear the opinions of employees about different topic areas, including various that are directly related to human rights. Mining Division mine and office personnel are invited to complete a survey every two years. In 2019, 9,528 employees completed surveys (6,232 in Mexico, 3,256 in Peru and 40 in Spain), representing a participation rate of 67%.<sup>3</sup> The survey covers 18 topic areas with a total 73 questions that are answered on a scale of 1 to 5. The most relevant topics in terms of human rights include: fair treatment, equity, life-work balance, working conditions and tools, and health and safety. These questions help the company, for example, to identify whether employees believe they are being treated fairly, whether everyone is offered the same opportunities for development without distinction, whether

<sup>3</sup> No surveys were collected in the United States because of the ASARCO strike in October 2019. Given the company's interest in understanding the work environment and employee commitment, employees will be invited to participate in the workplace survey in the next cycle, in 2021.

*Improvement program:* The Community Development department designed a three year program in 2019 to strengthen the Community Care Service and transform it from a corrective tool to a preventive tool. The program is divided into three stages:

- Institutionalization of the model in 2020
- Automation of the processes in 2021
- Dissemination in 2022

In 2019, **9,528 employees** participated in the workplace climate survey.



the workload allows them to spend time with their families or doing other things, whether the equipment, tools and facilities are adequate for their work, and whether the workplace is safe.

The survey is anonymous and the heads of each business unit receive the results for their unit. The Human Resources department, together with the management teams at each unit, review the results to identify priorities (as expressed through the survey) and design a work plan. This plan is then implemented until the next survey and the areas of opportunity are evaluated again. The work plan seeks to address the concerns expressed in the survey through concrete programs. Many of these actions are directly related to the human rights of our employees. For example, supervisor trainings on the collective bargaining agreements and the company work code to learn about and respect the rights conferred by the company and by law to unionized employees.

Additionally, Human Resources identifies patterns in the surveys at the national level to design actions to apply at all business units. For example, a mentor plan, sessions on the Code of Ethics and how to use the reporting line, agreements with gyms, and agreements with schools (the company covers in full the cost of primary and middle school education for employees, offers scholarships covering 80% of the cost for university and post-graduate studies, and

also offers educational opportunities and support for the children of employees).

The actions that are developed and implemented based on the results of the workplace surveys are reviewed periodically at the local level to determine whether any adjustments are needed. The process is repeated every two years, with new survey results, to determine priorities, design actions and assess their implementation.

**b.2 Integral Reporting System**

The reporting line is an essential component of the human rights due diligence process as it allows employees to report any violation of their human rights to the company immediately and to receive a report of how their complaint has been addressed. For more information about the Integral Reporting System, see the chapter on Business Ethics and Integrity, page 73.

As with the Community Care Service, having the reporting line mechanism allows the company not only to hear the concerns or complaints of our employees and suppliers involving possible violations of their human rights, but to process these complaints to define, implement, monitor and assess the mitigation or corrective measures that may be necessary.

**Other initiatives**

In addition to the due diligence process, Minera México implemented a new standard in 2019 and designed a new policy to promote respect for employee human rights. The objective of *NOM-035-STPS-2018, Psychosocial risk factors in the workplace-Identification, analysis and prevention* is to establish the elements to identify, analyze and prevent psychosocial risk factors and to promote a positive organizational environment in the workplace. The obligations of the employer include implementing a prevention policy for psychosocial risks.

In September 2019, Minera México disseminated the Policy on the respect and wellbeing of company personnel. This policy is added to the efforts of the company to protect the human rights of our employees. It includes a series of commitments related to workplace violence, psychosocial risk factors, the reporting procedure, health risk prevention and non-discrimination, among others. It also outlines a series of principles that address open communication, fair treatment, monitoring employee health, training plans and workloads, among others.

This standard, NOM035, contemplates a survey to identify psychosocial risks, which will be distributed in 2019 and 2020. In September 2019, Minera México distributed this survey to 20% of Minera México employees, fulfilling the requirements of the standard to obtain a representative sampling, and generated a diagnostic before the end of the year. The most relevant topics in the area of human rights the survey measures are:

Conditions in the workplace	Dangerous and unsafe conditions
	Deficient and unhealthy conditions
	Hazardous work
Workday	Long workdays
Interference in the work-family relationship	Influence of work outside the workplace
	Influence of family responsibilities
Violence	Influence of family responsibilities

Additionally, the Grupo México Occupational Health and Safety department designed and implemented a *Protocol to care for the health of employees who have suffered traumatic events during or related to work*, as well as other measures necessary to comply with the standard NOM035.

As mentioned at the beginning of this chapter, Occupational Health and Safety is one of the key departments tasked with protecting employee human rights, including the right to life, to health and to a safe and healthy workplace. This department invested US\$158.0 million in 2019 to foster conditions of respect and to protect these rights for all our employees. For a detailed description of Grupo México's processes and programs to ensure the health and physical wellbeing of our employees, see the chapter on Occupational Health and Safety, page 207.

## Suppliers

As stated in the Human Rights Policy, Grupo México promotes respect for human rights by all who form part of our value chain, including suppliers and contractors. Also, the Code of Ethics establishes that the company will work with suppliers and contractors who adhere to our values and observe our standards in workplace safety, caring for the environment and who are socially responsible companies and comply with applicable laws and regulations.

In this regard, the Mining Division has a series of policies and procedures to ensure our suppliers respect the human rights of their employees. The Minera México Human Resources and Procurement departments evaluate potential suppliers to verify they are in compliance with applicable labor laws and regulations. As part of this process, prospective suppliers are informed of the obligations in terms of labor rights that must be fulfilled if they are awarded the contract. When a company is selected, Labor Relations (part of the Human Resources department) conducts an exhaustive analysis of the supplier to verify all their employees are afforded all rights as conferred by the labor laws. These include access to public health services and a pension, access to mortgages and consumer loans, employee profit sharing and the payment of a salary, overtime, yearend bonus and vacation bonus, etc.

Following this review, Labor Relations explains the policies and procedures the supplier is expected to follow as part of the contracting process, which include the fulfillment of labor and social security obligations, which are directly related to the human rights of their employees. Before signing the contract, the Human Rights Policy and the Code of Ethics are provided to the supplier, who agrees to adhere to these documents with their signature. The contract includes clauses that establish the labor obligations the supplier must fulfill to guarantee the rights of their employees.

Also, a written statement is appended to the contract to ensure that the employees contracted by Grupo México suppliers are working in a safe and healthy work environment, which is directly related to their human rights.<sup>4</sup> Signing the statement means the supplier is contractually obligated to implement a series of measures to guarantee the health and safety of their employees. These measures include, for example, developing and implementing a Hygiene and Safety Program, providing the personal protective equipment that employees need and ensuring this equipment is in good condition, ensuring personnel are qualified to perform the work contracted safely, and providing regular medical exams for employees.

As an additional measure to guarantee respect for human rights throughout the value chain, Grupo México monitors suppliers each month to verify they are respecting the labor rights of their employees. Labor Relations asks suppliers to provide various documents to confirm they have made the required payments for each employee. If the monthly reviews find any irregularity, the supplier is required to correct the situation or their payments will be frozen and they may be removed from the Grupo México suppliers list and prevented from participating in future bids for contracts.

Each year, Human Resources reviews the policies and procedures that describe the steps to take to assess and monitor compliance by suppliers with their labor obligations. If adjustments are needed (to reflect a change in regulations, for example), the Internal Control department is notified and asked, following review and approval, to change the company policy or procedure.

In Peru, Southern Peru has a process in place to ensure our suppliers respect human rights, similar to that described above, but based on the labor laws in Peru. The Procurement department includes specific conditions in the guidelines for contract bids that are specific to Occupational Health and Safety, Human Rights,

<sup>4</sup> This appendix, which each supplier is required to sign, seeks to guarantee compliance with the Grupo México Health and Safety Management System. See the chapter on Occupational Health and Safety, page 207 for more information.

the Code of Ethics, Good Corporate Governance and Corporate Social Responsibility. Therefore, contractors are aware of these clauses from the start of their participation in the bidding processes and they agree to abide by them if they are awarded the contract. Compliance with these clauses is again explained to contractors at an initial meeting and the clauses are included in the contracts. Additionally, the Code of Ethics and the Human Rights Policy are shared and signed. Southern Peru conditions payments to contractors on a monthly review of payment receipts verifying compliance with all labor obligations.

In the United States, ASARCO contracts an outside company to review potential contractors, who are required to meet a series of requirements. These requirements, set by ASARCO, include compliance with the labor laws, occupational health and safety standards, and also environmental obligations. The outside company assesses the potential contractor by reviewing documents and holding interviews, and using a four scale rating system to determine their level of compliance. This rating system takes into account various parameters, such as follow up on accidents by the Office of Mine Health and Safety (Department of Labor), and also the national and state averages for accident rates. Once the outside company has delivered their recommendation, ASARCO then verifies a contractor's rating against their own parameters.

Before a contractor starts work at a business unit, the ASARCO safety department checks and confirms the contractor has met all company health and safety requirements and that their employees have the proper equipment and training for the work in question. Also, the contracts contain clauses that encourage ASARCO suppliers to respect the human rights of their employees. These clauses refer primarily to compliance with labor laws and workplace health and safety regulations, including providing training, disability and unemployment insurance, among others, pensions and social security payments.

The company operates a Reporting Line in complement to the supplier assessment and monitoring process described here. This reporting line is available in Mexico, Peru and the United States, not only for all Grupo México collaborators, but also for the employees of our suppliers.<sup>5</sup> This tool means that any supplier employee can report any human rights violation they may have witnessed or suffered. The report can be on any issue related to human rights and does not need to be limited to the labor rights described above.

## Voluntary Principles of Human Rights and Safety

The Mining Division is committed to respecting the human rights of our collaborators and our neighbor communities, meeting full compliance with the legal framework in all the countries where we operate. The company has a series of policies and procedures that ensure adherence of the Voluntary Principles of Human rights and Safety. This set of principles, designed as a guide for companies, is divided into three areas: risk assessment, interactions between companies and police forces, and interactions between companies and private security.

### 1. Risk assessment

The principles related to risk assessment require companies to identify the safety risks, the potential for violence and human rights records, and to take into account local conflict analysis and the rule of law. As the Mining Division (in Mexico and Peru) has decades of experience in the industry, we are deeply familiar with the political and socioeconomic context at the national, regional and local levels, and also the situation of safety and the implications of this on operations. In drafting and updating the policies and procedures, the company takes into account the crime rates and potential risks to human rights in the locations where we operate. Each business unit has an ongoing risk assessment process that includes generating regular reports with information

<sup>5</sup> See the chapter on Business Ethics and Integrity, page 73, for a detailed description of the Reporting Line.

gathered from the security, legal and environment departments to establish preventive measures and actions to address the risks and avoid potential consequences. The Security Department immediately identifies if there is any risk or threat that would require attention and produces an action plan, considering the potential damage to both people and facilities.

## 2. Interactions between the company and police forces

### Mexico:

This point in the Voluntary Principles applies when police forces are needed to protect company personnel, properties or sites. No business unit in Mexico is guarded by police forces, therefore this point is not applicable.

### Peru:

There have been agreements in place between the company and the Peruvian National Police since the 1980's<sup>6</sup>, known as *Agreements for Extraordinary Police Services*, to ensure the safety of our employees and to protect the assets at two business units and one mine project, of a total of six operations in Peru. The productive units at Toquepala and Cuajone, in the regions of Tacna and Moquegua respectively, have had

a renewable agreement in place for forty years, and three years ago, a similar agreement was signed for the Los Chancas mine project in the Apurimac region. These agreements are renewed periodically (every two years) and provide officers from the Peruvian National Police at the access gates to support the private security guards that are also posted at the access points. These agreements are authorized under specific regulations issued by the state under the control and supervision of the Ministry of the Interior.

Approval from the Ministry of the Interior is required for the agreements between the company and the Peruvian National Police, as these are classified as public documents and are available on publicly accessible portals. The Peruvian National Police that provides extraordinary police services is not associated with the local police force. If the local police were to get involved, they would do so on their own initiative, as permitted by law and regulations, using their own equipment and weapons. The services are provided strictly respecting human rights:<sup>7</sup> the Peruvian National Police guarantees the proper use of force as may be strictly necessary, and does not step in to violate rights related to freedom of association and peaceful assembly.

The company and the Peruvian National Police are in constant contact and hold regular meetings to discuss the service, human rights, risks and threats. All participation by the Peruvian National Police in regards to extraordinary services is authorized and formally reported to their police headquarters and chiefs of command. The Peruvian National Police receives training in human rights as part of their initial training and then periodically, at least once a year. All reports or claims of abuse of human rights are formally reported in writing and recorded in the files of the Security Department at each business unit. These reports are the basis for a police investigation and, in parallel, a private investigation. The company prefers the legal authorities conduct the investigation, providing all assistance necessary. Of note is that there are no records of reports of a violation of human rights by the police working under the Agreements for Extraordinary Police Services between the Peruvian National Police and the company.

## 3. Interactions between the company and private security

This point includes a list of voluntary principles that guide the conduct expected of private security, and also directives for companies

on how to ensure our private security providers respect the human rights of company employees and members of the community. The Mining Division contracts private security companies to protect the business units. The security officers are posted only at the property limits and therefore they have no contact with members of the community, which eliminates the risk of potential violations of community human rights. In 2019, or in previous years, there has been no report of any human rights violations involving any member of our neighbor communities by the private security officers contracted by the company.

In Mexico, all private security companies are required to be registered with the Department of Public Safety and Citizen Protection and to meet a series of requirements, including guaranteeing their officers receive human rights training at least once a year. The Department of Defense issues the permits for private security officers to carry weapons, supervising these officers monthly and providing training four times a year, as well as subjecting them to psychometric tests and antidoping. The permit to carry weapons requires periodical renewal, subject to a favorable assessment by the Department of Defense.

<sup>6</sup> The serious situation that occurred in Peru because of the political, social and economic crisis caused by the terrorist violence in the 1980's and 1990's, which involved the systematic violation of human rights, forced extreme measures to be taken to protect life and both public and private property, including the safety of Southern Peru employees and assets.

<sup>7</sup> As established in Resolution N° 952-2018-IN, the Peruvian National Police is required to observe the "Manual on Human Rights for Police Forces".

The Security Department has a due diligence process in place for contracting security companies to ensure compliance with the Code of Ethics and the Human Rights Policy. As part of the selection process, prospective companies are subjected to an exhaustive evaluation to verify they are in compliance with all labor regulations, and also the requirements of the Department of Public Safety and Citizen Protection and the Department of Defense, noted above. Additionally, the company includes in the contracts with private security companies references to the requirements set by the authorities in reference to human rights. The personnel of companies contracted are required to pass a series of tests and must be properly recruited and trained in prevention, deterrence and reaction to protect life through the carrying of firearms.

In Mexico, the company has security protocols that describe the roles and responsibilities of the private security companies, and specify the deterrent effect of the security officers within the business units. The company supervises the private security providers to identify any irregularity, and incidents can be reported via the reporting line available for all Grupo México collaborators and contractors. There are also procedures in place to investigate and penalize any human rights violation committed by private security officers.

In Peru, the company also contracts private security companies to protect our business units and projects. These private security companies operate in adherence of law and are supervised by the Peruvian Ministry of the Interior, through the Superintendencia Nacional de Control de Servicios de Seguridad, Armas, Municiones y Explosivos de Uso Civil (SUCAMEC), and also by the company. Private security companies are only permitted to operate within the confines of the business unit. The security officers that work for these companies receive human rights training when they renew their licenses with the SUCAMEC, every two years. As in Mexico, a due diligence process is used in Peru to contract private security companies, including contractual clauses to promote respect for human rights, and there are security protocols in place to continually monitor the actions of these companies and to investigate and penalize any human rights violations identified.

In the United States, ASARCO contracts private security companies to protect our business units. It should be noted that none of these security guards carry weapons and there have been no reports of

human rights violations committed by them. These companies are contracted applying the same process as other contractors, mentioned above in the section on Suppliers. Contracts include clauses that require full compliance with all requirements of all regulations, codes permits and other federal, state and local laws applicable to their services or performance. ASARCO periodically verifies that the private security guards are in compliance with the health and safety requirements at the business units. Any complaint involving the guards would be treated through the same channels as other types of complaints and appropriate measures would be taken, which would include the termination of the contract.

## Mining Division

### Incidents of discrimination and corrective actions taken

#### 406-1

In adherence of the principles and values of Grupo México in reference to integration, gender equality, non-discrimination, dignified treatment and capacity development, the Mining Division rejects any act that could be considered discriminatory. Our Code of Ethics includes processes to ensure non-discrimination on the basis of ethnic origin or nationality, gender, age, disability, social condition, political affiliation, health condition, religious beliefs, immigration status, opinions, sexual preference or marital status.

Four cases of discrimination were reported through the Reporting Line in 2019, three involving Minera México and one involving ASARCO. These incidents were addressed and different corrective actions were taken. The first step was to hold talks with unionized and non-union personnel to raise awareness on the issue of favoritism, and to reach agreements to generate an environment of respect and cordiality. Communication between department heads, supervisors and collaborators also improved. Additionally, conversations are held periodically between collaborators and Human Resources representatives to listen to concerns, opening direct and varied channels of communication to address the concerns of our collaborators to improve the work environment. In the most extreme case, the offender was suspended without pay as permitted by law and by our Code of Ethics.

## Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk

### 407-1

Grupo México has always been respectful of the rights of freedom of association and collective bargaining with the unions, and therefore these rights are not at risk at any of our operations.

Minera México worked with three different unions in 2019. Grupo México has held salary negotiations with two of these unions each year and contractual negotiations every two years, with satisfactory results for both the company and our employees. These results are reflected in the different review agreements, which are filed with the labor authorities to be valid. In carrying out these negotiations, the company has always recognized the legitimacy of the worker committees, which are democratically elected at company union meetings. Meanwhile, the third union holds the Collective Bargaining Agreement for the Taxco mine, which has been on strike since July 30, 2007, therefore there have been no salary or contract negotiations until the labor authorities resolve the situation.

Southern Peru employees are grouped into six union organizations, where collaborators decide for themselves whether to keep or change their membership. Five of the six union organizations have signed three-year collective bargaining agreements with Southern Peru, expiring in 2021. We have an arbitral decision with the sixth union organization also ending in 2021. The negotiation processes with the six union organizations were carried out without any work stoppages, as had also been the case with the signing of the collective bargaining agreements in previous years.

In the United States, ASARCO has a formal labor relationship with the United Steelworkers Union, which covers our US mines. The agreements with the unions are current and the company respects the right of freedom of association and the right to strike.

In regards to suppliers that would put at risk their employees' rights of freedom of association and collective bargaining, the section on Suppliers above explains that Grupo México has an extensive process for evaluating each supplier and for verifying they are in compliance with the labor laws and regulations, which include respecting the right of freedom of association and collective bargaining. Therefore, Grupo México does not have any suppliers that would put this right at risk.

## Operations and suppliers at significant risk for incidents of child labor

### 408-1

The Code of Ethics, which is applicable not only to Grupo México employees but also for suppliers and contractors in all the countries where we operate, clearly states that "under no circumstance does the company encourage or hire minors under the minimum legal working age at any Grupo México business unit." Therefore, the different companies of Grupo México have no child workers, and company suppliers and contractors are forbidden from bringing minor aged workers onto Grupo México properties. The Labor Relations department monitors this in Mexico, the Contract and Services department in Peru, and the Security department in the United States, as part of the monthly review to ensure compliance with supplier obligations (explained in greater detail in the section on suppliers above).

## Operations and suppliers at significant risk for incidents of forced or compulsory labor

### 409-1

Grupo México promotes a culture of respect for human rights, fostering a culture of collaboration and sustainability in benefit of everyone. The company has no activities in any of the countries where we operate that

could be considered forced labor, meaning, work that is performed under threat of any kind of punishment. Each employee (unionized or non-union) performs activities according to their competencies or skills, and their physical condition, without putting their health or life at risk. This is clearly disseminated among the unions and their members. In regards to Grupo México suppliers, the ongoing evaluation process to verify compliance with labor laws and regulations (explained above) ensures there are no incidents of forced labor anywhere in the Grupo México value chain. .

## Operations that have been subject to human rights reviews or impact assessments

### 412-1

The shared value diagnostics help Grupo México to identify the risks that are present at each business unit to then design actions to mitigate the negative impacts and optimize the positives. These diagnostics are prepared at the start of each project and are updated every two years for all business units in Mexico and Peru. All operations are subject to community human rights impact assessments:

- In Mexico, the Infrastructure Division prepares Social Impact Assessments for the Energy and Hydrocarbons units, which are reviewed by the Department of Energy, and voluntarily for the other operations.

- In Mexico, the Mining Division voluntarily prepares social diagnostics for its 14 properties.
- In Peru, six social diagnostics were updated in 2019, of a total six business units.
- 100% coverage.

In regards to employee human rights, all Mining Division operations in Mexico and Peru participated in the 2019 workplace survey.

## Employee training on human rights policies or procedures

### 412-2

Human Resources offers an online course for all collaborators on the topic of human rights. One of the main components of the course explains in detail the content of the Code of Ethics, as well as the use of the reporting line. Another component, designed in 2019, explains the company’s commitments as outlined in the new Human Rights Policy and the implications. This component includes a link to the policy, which is on the Grupo México website, as well as a link to the Mexican Human Rights Commission. The course includes various exercises and also a final test on the course content, which employees are required to complete and pass.

As Grupo México operates in remote locations, and given the size of the operations (there are 6,850 unionized employees in Mexico and 4,009 in Peru), a strategic decision was made to run this training every two years for unionized employees and annually for non-union employees. However, there is ongoing communication to reinforce the content of the Code of Ethics and the Human Rights Policy at all business units. An example of this is the “no lo permitas” (don’t allow it) campaign, which includes posters, communiques and notes on the company intranet encouraging employees to not engage in conducts (themselves or others) that would violate human rights, such as sexual harassment, discrimination, abuse and bullying, among others. Human Resources updated the content for the campaign in 2019 to include the commitments outlined in the new Human Rights Policy.

Although unionized employees take this course every two years, all new hires (unionized or non-union) are provided with the Human Rights Policy, the Policy on the Respect and Wellbeing of Our Collaborators, and the Code of Ethics, and they are asked to sign their agreement of these documents.

The statistics for the 2019 human rights trainings are summarized following:

	Total	Training goal for 2019	Number of collaborators trained	% training goal	Number of training hours (1hr per person)
Mexico					
unionized employees	6,850	0	0		
non-union employees	2,417	2,417	2,289	95%	2,289
Peru				-	
unionized employees	4,009	4,009	2,950	74%	2,950
non-union employees	1,120	1,120	619	55%	619
<b>Total</b>	<b>14,396</b>	<b>7,546</b>	<b>5,858</b>	<b>75%</b>	<b>5,858</b>
				<b>Average</b>	

Meanwhile, 461 non-union employees at ASARCO (89% of the non-union personnel) received one hour of training on the Code of Ethics, which includes components on human rights.

**6,319** Mining Division **employees** received human rights training in 2019.

## Infrastructure Division

### Incidents of discrimination and corrective actions taken

#### 406-1

In the case of the Infrastructure Division, no complaints of discrimination of any nature were received via the reporting line from our personnel, our suppliers or our neighbor communities, therefore there were no investigations or legal actions required to be taken.

It is important to note that our internal audit department verifies this information, and also an impartial third party for transparency and to address complaints.

## Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk

**407-1**

The right of freedom of association is guaranteed through recognition of the collective bargaining agreements observing the guidelines established by the labor authorities in strict adherence of union autonomy.

The Infrastructure Division worked with four trade unions at its business units in 2019 in adherence of law, respect and freedom of association. No reports were received this year via the communication mechanisms, such as the reporting line.

## Operations and suppliers at significant risk for incidents of child labor

**408-1**

The Infrastructure Division operates in strict adherence of the Grupo México Code of Ethics, therefore hiring underaged minors is forbidden at the administrative offices and all operations. Additionally, Article 173 of the Mexican Federal Labor Law (Ley Federal del Trabajo) prohibits underaged minors from working, under which we protect our communities and respect children's rights.

In parallel, our workplaces have recruitment filters that require candidates to prove their age with official documentation.

To continue, our suppliers are required to complete a selection process that includes checking their competitiveness, reputation and certifications. Additionally, as part of the commercial conditions, our suppliers are required to adhere to our Code of Ethics, which ensures our commercial partners hold values and practices that are similar to ours in terms of prohibiting child labor.

## Operations and suppliers at significant risk for incidents of forced or compulsory labor

**409-1**

The Infrastructure Division promotes a culture of respect for all collaborators, contractors, suppliers and our neighbor communities, based on the guidelines laid out in our Code of Ethics, Mexican law and international good practices. In this context, our job offerings are in adherence of law and respect for human rights. We do not engage in forced or compulsory labor, or any type of exploitation or violation of the dignity or human rights of our collaborators.

In parallel, employees are invited to submit complaints and suggestions anonymously via the Grupo México Reporting Line, which are then investigated. Another way of identifying and addressing complaints is through the unions, where people express their concerns and complaints are addressed together with the organization.

These policies and actions apply equally to our suppliers, contractors and communities.

## Operations that have been subject to human rights reviews or impact assessments

**412-1**

The Infrastructure Division promotes respect for the ideas and rights of our personnel based on the Grupo México Code of Ethics and the International Bill of Human Rights.

Social Impact Assessments are prepared for the Energy and Fuels units, according to the requirements set by the Department of Energy, and voluntarily in the rest of our operations. With the support of Community Development, we also serve the communities near our operations (see Mining Division indicator 412-1 on page 299).

Specifically, the El Retiro Wind Farm is subjected to an Equator Principles audit each year, which includes rights indicators, receiving a satisfactory result.



## Employee training on human rights policies or procedures

412-2

We delivered 2,260 hours of human rights training in 2019 to 10% of our employees. Without doubt, 2019 represents the start of building our culture of respect for human rights, developing strategies that permeate throughout the organization.

## Transportation Division

### Incidents of discrimination and corrective actions taken

406-1

The Transportation Division adheres to the Grupo México General Human Rights Policy to ensure that no employee is the victim of workplace harassment, discrimination or disrespect. Ensuring our employees enjoy a quality of life is a priority, guaranteeing and promoting both physical and mental wellbeing. We analyzed the sources of psychosocial risk within our organization in 2019 to better manage the elements that could physically and psychologically affect our collaborators. We have identified that negative lead-

ership and a poor work environment create difficult workplace relations and affect the productivity of our company. Because of this, we have been working on communications and tools for our collaborators to feel safe in reporting situations that affect them.

We are continually developing initiatives that foster inclusion and a feeling of belonging in the company so that our employees can identify with Grupo México and they see this as an organization that values and needs them. In this regard, we relaunched our complaints process in 2019 where an independent firm manages the information to build an environment of trust in which our collaborators feel safe to report complaints anonymously. Fortunately, there were no incidents of discrimination reported in 2019 and no penalties were imposed, as established in our Code of Ethics. Any incidents of discrimination or disrespect in the workplace would have been addressed according to our Code of Ethics and as defined by our Ethics Committee. Our Code of Ethics guarantees equal treatment within the company regardless of ethnic origin, gender, age, disability, social condition, political affiliation, religious beliefs, health condition, immigration status, opinion, sexual preference or marital status.

## Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk

407-1

As is the case in the other operations of Grupo México, the Transportation Division respects the rights of our employees to freedom of association and we work with trade unions to respect workers' rights in every aspect. The right of freedom of association and collective bargaining are not at risk at any Transportation Division operation. In 2019, 77% of Grupo México Transportes employees were members of a union, in Mexico or in the United States.

The collective bargaining agreements between the unions that Grupo México Transportes works with and the company are reviewed frequently, making any adjustments necessary. The company notifies the unions and employees in advance of any significant changes in the organization, usually at least two weeks in advance.

In terms of suppliers that would put at risk the right of their employees to free association and collective bargaining, as is the case throughout Grupo México, Grupo México Transportes has a comprehensive process to evaluate each supplier and confirm they are in compliance with the labor laws and regulations applicable in each region where we operate. This also covers the freedom of association and collective bargaining of supplier employees and respect for human rights. Grupo México Transportes did not identify any suppliers in 2019 that are not respecting the freedom of association of their employees.

## Operations and suppliers at significant risk for incidents of child labor 408-1 / Operations and suppliers at significant risk for incidents of forced or compulsory labor 409-1

We respect all labor regulations in all the regions where we work, and we adhere to the company Code of Ethics, therefore we do not, under any circumstance, encourage or hire underaged minors. This applies to all collaborators and is extensive to our users, suppliers and contractors. No Grupo México Transportes operation permits underaged minors to work and our company has no commercial, or any other, relations with organizations or companies that do not respect human rights, particularly those of women and children. The guiding principle for our Human Resources department is to protect our collaborators and promote the development of the company through fostering the wellbeing of our personnel. We therefore do not permit forced labor at any of our operations or by users, suppliers or contractors. Our operations are shielded from the risk of forced or child labor, therefore there were no cases of forced labor or child labor at any of our business units in 2019.

## Operations that have been subject to human rights reviews or impact assessments

### 412-1

As we operate as a concessionaire or permit holder, our Transportation Division maintains a close relationship with the government and as part of this, certain projects foster greater interinstitutional participation and collaboration with government agencies. A clear example is the extensive coordination between the company and the Department of Internal Affairs, the Mexican Immigration Institute, the

National Guard, the Department of the Navy, the Department of Defense and the Department of Transport and Communications, as well as with non-governmental organizations, to prevent, mitigate and reduce the impacts of our operations on the human rights of the communities that interact with the railroad. We assessed all our routes in 2019 and the risks associated with moving freight for eight different industries in 24 Mexican states. This helped to set a very clear line of action and to manage the interinstitutional coordination necessary to make the railways in Mexico even safer both for our operations and collaborators and for the communities where we operate.

## Employee training on human rights policies or procedures

### 412-2

The Grupo México Transportation Division does not provide training on human rights for our employees. In 2020, we are planning to work with the Railroad Regulatory Agency and the Department of Transport and Communications so that in future years our railroad security teams will promote training on respect and the protection of human rights, particularly those of migrant populations.

In regards to training on the Code of Ethics, 921 new hire employees read and signed the Code of Ethics in 2019. However, as we are not required to comply with the Sarbanes-Oxley Act in the United States, as Grupo México Transportes is not traded in the US, the company is not subject to the corporate governance requirements applicable to AMC and, therefore, we are not required to deliver Code of Ethics training to employees every year. We began a review of the Code of Ethics in 2019.



# LOCAL COMMUNITIES



We run activities for the next generations to learn about the role minerals play in the history of mankind.

## LOCAL COMMUNITIES

### Mining and Infrastructure Divisions

103-1

Our mine deposits are mostly located among mountain ranges and in remote places. Our company operations are primarily in rural areas, away from big cities. In some cases, there are communities that have grown and developed around our operations and projects, building important economic and social relationships, such as is the case of Cananea and Nacozari<sup>1</sup> in Mexico and Ilo in Peru<sup>2</sup>.

We recognize the effects we have on our neighbor communities. For this reason, while we transform mineral resources, generate power, develop communication routes and contribute to oil production, we are strengthening social and human capital. Additionally, in all areas of the company, we prevent and mitigate any potential negative situation involving our operations. Given this, we prepare assessments of the potential social impacts of the different stages of our projects (exploration, construction, operation and closing), to identify various questions about the actions necessary to continue building healthy and sustainable relationships with the community.

We start by looking at the potential positive and negative effects that could present during the different stages of our operations, which are presented in the following table with examples of mitigation alternatives:

We recognize the effects we have on our neighbor communities. For this reason, while we resources, generate power, develop communication routes and contribute to oil production, **we are strengthening social and human capital.**

1. Sonora Cluster website <https://clusterminerosonora.com.mx/>

2. A development strategy based on natural resources: cluster analysis of the Southern Peru copper complex [https://repositorio.cepal.org/bitstream/handle/11362/46711/S00020079\\_es.pdf](https://repositorio.cepal.org/bitstream/handle/11362/46711/S00020079_es.pdf)

	Aspect	Potential positive effects	Potential negative effects	Social mitigation alternatives
Exploration	Socioeconomic	Local suppliers		
	Sociocultural		Elevated social expectations	<ul style="list-style-type: none"> <li>• Communication and approach program</li> </ul>
	Environmental		Minimum deforestation	<ul style="list-style-type: none"> <li>• Forestation activities</li> </ul>
Construction	Socioeconomic	Jobs		
	Sociocultural		Floating population	<ul style="list-style-type: none"> <li>• Social Development activities focused on developing and training local suppliers</li> <li>• Create mechanisms for temporary local employment during construction stages</li> <li>• A conduct policy that regulates the behavior of contractors and personnel</li> <li>• Social suggestion box</li> </ul>
	Environmental		Deforestation Ecological footprint of the floating population	<ul style="list-style-type: none"> <li>• Community reforestation campaigns</li> <li>• Participative Environmental Monitoring Committee</li> </ul>
	Safety		Risks of accidents	<ul style="list-style-type: none"> <li>• Civil safety campaigns</li> </ul>
	Accessibility	Improved roadways		
Operations	Sociocultural		Floating population Change in the social dynamic	<ul style="list-style-type: none"> <li>• Suggestion box</li> <li>• A conduct policy that regulates the behavior of contractors and personnel</li> <li>• Code of ethics and community relations</li> </ul>
	Environmental		Perception of impact Perception of invasion and deterioration Tailings dam	<ul style="list-style-type: none"> <li>• Environmental-focused community committee</li> <li>• Suggestion box</li> <li>• Communication campaigns on topics of concern</li> </ul>
	Safety		Risks of accidents	<ul style="list-style-type: none"> <li>• Civil safety campaigns</li> </ul>
	Accessibility (Transit)	Maintenance and improved communications infrastructure	Noise and vibrations with increased transportation	<ul style="list-style-type: none"> <li>• Suggestion box</li> <li>• Roadway safety campaigns</li> </ul>
	Water		Concerns about water and the flora and fauna Availability of water for farming	<ul style="list-style-type: none"> <li>• Communication campaigns aimed at social concerns</li> <li>• Alliances with farmers</li> <li>• Baseline with known water agencies</li> <li>• Guided tours of the operation</li> <li>• Workshops led by experts on water management</li> </ul>
	Tourism / Farming / Fishing		Perception of impact on local economic activities, particularly in regards to the use of water and other natural resources	<ul style="list-style-type: none"> <li>• Suggestion box</li> <li>• Develop high-impact farming programs</li> <li>• Support for technification processes</li> <li>• Promotion of tourism in the area</li> </ul>
	Socioeconomic	Local suppliers		<ul style="list-style-type: none"> <li>• Trainings for workers and suppliers</li> <li>• Value chain (consumer products that use copper, creams, soaps, casings)</li> </ul>

	Aspect	Potential positive effects	Potential negative effects	Social mitigation alternatives
Closure	Socioeconomic		Loss of Jobs	<ul style="list-style-type: none"> <li>• Linkages with government institutions</li> <li>• Programs aimed at self-employment and business incubation</li> <li>• Training for the Community Development team on attention during the administrative closure</li> <li>• Employment future for workers (relocation, early retirement, change of career)</li> <li>• Prevent any damage to other productive activities in the area</li> <li>• Ensure the availability of resources to address the socioeconomic aspects of the closure</li> </ul>
	Sociocultural	Identifying with the company	Dependence	<ul style="list-style-type: none"> <li>• Negotiate bailments, agreements and provisions for social liabilities</li> <li>• Consider alternative uses for the company's facilities</li> <li>• Encourage the participation of the community in the closure process</li> </ul>

Sense of **ownership in the company.**

**We strive to involve the community**  
in our closure plans.

As noted in the table above, there are many positive impacts to generate value added in the local economy (create jobs, purchase inputs, export products, pay taxes and generate profits). A percentage of the profits from the operation is earmarked for improving quality of life through Community Development strategies (see the section on Organizational Management, table of resources, page 323).

## Organizational management

### 103-2

The social aspects are a core topic for the organization and a basic concern of the community, in response to which we have developed a social action model that we call [Casa Grande](#) in Mexico and the United States, and [Casa Nuestra](#) in Peru.

The priorities are to strengthen the operations of the company, improve the quality of life in the communities where we operate, strengthen the social weave and foster collective participation in benefit of the common good, always on the consideration that people are the drivers of development. We strive to prevent, mitigate and remedy the potential negative effects and to optimize the positive impacts.

The community development model is guided by the following values:

**Co-responsibility:** We begin by identifying each person as taking the lead in their own personal development and that of their surroundings. We believe positive transformations are possible when each individual shares their skills, knowledge and experiences in service to their community. We seek to facilitate the conditions so that organizations, families, community leaders and the company itself, work together and actively in the social and economic development of each community where we operate.

**Inclusion:** Nothing for the community without the community. Every action, program or project has an exhaustive process of listening to the ideas and needs of the different groups that make up a community, considering their diversity in terms of age, gender, language and specific needs.

**Active communication:** Through different means of communication with our stakeholders, encouraging open and transparent dialog as the principal tool to identify the common ground that helps us to develop plans and programs for the common good.

**Transparency:** We ensure information is shared clearly and openly with our stakeholders; we also report our progress and results of our social initiatives implemented in the community.

**Building trust:** Aligning our actions with the reality of each of the communities where we operate helps us to consolidate relationships of mutual trust. To achieve this, we begin with interactions based on empathy and consistency. We propose to understand the reality from the life experience of others and then, we develop collaborative actions that respond to the needs and vision of the people in the communities where we operate.

Our priorities are to **strengthen the operations of the company and improve the quality of life in the communities where we operate**, always on the consideration that people are the drivers of development.

## Our commitments

1. **Accompaniment in social change that strengthens the internal structures of the community.** We strive to build relationships with the different levels of government, institutions, associations and organized groups in the communities where we operate. We enable processes to meet the needs and challenges together, as well as develop the tools to strengthen the bodies that sustain the community and, with this, the social weave.
2. **Ensure the voices of the community are heard and taken into account.** Through the different communication mechanisms the company has in place, we can listen to concerns, needs and perspectives for the development of our community actions in the field. This voice is conveyed to the corporate departments, through boards and committees, to aid in developing informed and inclusive decision-making processes.
3. **Respect for the rhythm and needs of each community.** We begin by understanding each community as a whole and then seek to build common horizons in development. The fast pace of the company to propose, link and act is adapted to the pace set by the community and is based on the needs felt and expressed.

We are committed to sharing this information with the community, reflecting the achievements and potential areas for improvement in the community to raise awareness of the current situation, reflect together and set goals to follow a process of healthy and participative development.

4. **Feedback with the community.** As our model places each person at the center of their development, we are committed to reflecting back to the community their own achievements and challenges, maintaining ongoing improvement and healthy and participative development processes.
5. **Building together:** Through reflections and dialogs with the community, we strive to expand the vision to identify collaborative solutions in response to the local challenges. We consolidate common goals and outline the paths to achieve them. We know that when faced with difficulties, it is always possible to find development horizons and collective benefit.



## Policies

**Code of Ethics:** Governs our day-to-day conduct, outlining our vision of Social Responsibility.

Our community model is based on a **Policy of Sustainability**, which begins with recognizing that creating value in our environment is fundamental to the development and continuity of our organization. We strive to achieve an operation that is responsible in the social, economic and environmental aspects of our performance, meeting the expectations of our stakeholders.

**Human Rights Policy:** We respect and promote the human rights of all our collaborators and the communities where we operate, in adherence of the United Nations Universal Declaration on Human Rights and local laws. (See the chapter on Human Rights, page 274, for more information about this policy, published in 2019.)

Our day-to-day actions are backed by 16 procedures, which ensure we can implement, measure and continually improve our community actions. Two of our most emblematic procedures, pillars of citizen engagement, are summarized following:

- The Community Committees are described in detail in the section on Human Development, page 335. These committees are the cornerstone of our Community Development model and are made up of volunteer leaders recognized by the nonprofit community, which together with the company, define our social investments. The procedure for the community committees sets their objectives, the guidelines for selecting participants, their responsibilities, and also the processes and actions for their creation and operation.
- These committees put out calls to submit project proposals. This procedure helps us to make the implementation of the Investment Fund (Seed Capital) transparent and efficient. The company provides this fund for the development of social investment projects, which are selected by the Community Committee.

## Objectives and goals

As noted in the section on evaluation mechanisms, page 350, there are specific sustainability goals that are in accordance with the ongoing improvement process for community linkage.

## Roles and responsibilities

The following areas of the Mining and Infrastructure Divisions support our Community Development management and provide direction, resources and visibility at all levels.

Senior Management, through the Sustainability Committee, supervise and audit the performance of our policies on sustainability: health, safety and environment committees. In regards to community performance, they review the management, prevention and mitigation of social risks, and also the implementation of programs that will optimize the positive impacts. This includes fostering relationships and linkage with the authorities and institutions.

The following corporate positions participate in the implementation and evaluation of our community development management under the principles of sustainability:

- **Corporate Vice-President of Sustainable Development:** Responsible for our performance in environmental management, the health and safety of our collaborators, and our relationship with the community. (See the chapter on Corporate Governance, page 61, for more information.)
- **Director of Community Development:** Leads the efforts of this department to ensure the implementation of the company's strategic plan; identifies risks and opportunities to establish mitigation mechanisms and response strategies. They also build alliances and linkage with strategic groups and state and federal authorities, in the Mining and Infrastructure Divisions in three countries (Mexico, Peru and USA). This department is divided into two main areas:

1. The first is the executives who lead teams working directly in the field and with local roots, and who understand the cultural environment.
  - a. There is a team of professionals at each property with good listening skills, who build trust and ensure we maintain healthy, long-term relationships with the population, building human and social capital.
  
2. The second area involves two types of support that crossover all our operations:
  - a. **Deputy Director of Impact Measuring:** Directs the regulatory processes, internal audits and impact measuring in adherence of international indicators of social transformation and return on investment to maximize the creation of value and sustainability in the community.
  - b. **Deputy Director of Special Projects and Explorations:** Fosters social investment projects, supervises the community care on strategic projects for the organization in the two divisions and in three countries. Of note is our Community Care Service, funds and social tax incentives, the schools sponsored by Grupo México and also Tamosura Park and Pinacate.

All personnel are selected for their values, experience and social skills. Sometimes they collaborate with other areas on strategic projects requiring a close relationship with the community. Additionally, we are always endeavoring to incorporate corporate linkage into our efforts.

One of the main tasks of the team is to ensure the population has opportunities for development. This means our people acquire local knowledge, living at the sites, to achieve real immersion. In this way, we are respectful of the local rhythms, styles and customs. We strive to maximize the creation of value and sustainability in the community.

## Formal grievance mechanisms

The Community Care Service (CCS) system is a key piece of the Community Development Model. It was designed as a mechanism for clear and reliable communication that addresses requests, concerns, complaints, emergencies and conflicts that may arise in the communities that coexist with the company and our operations.

The CCS helps us to build and maintain trust with the community to ensure timely, effective and direct attention to their concerns and grievances, to continually improve our approach of prevention for the different risks and impacts of our operations on the community. (See the chapter on Human Rights, page 279 for more details about our Community Care Service.)

## Resources

The department has its own resources (material, human and financial) that are sufficient to implement the Community Development model, directing their efforts according to specific needs in each country with a focus on education and the environment, seed capital funds for social and productive projects.

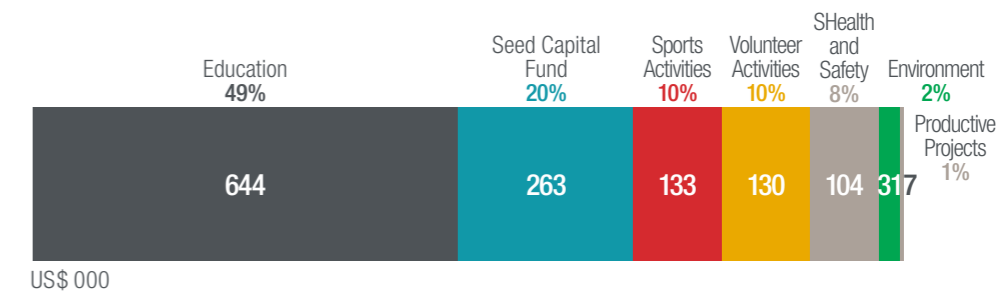
The Mining Division invests in social programs and projects under the *Casa Grande* and *Casa Nuestra* model on consideration of our community performance indicators.

These investments are summarized following:

### Mining - Mexico

Total investment  
**US\$1.312 million**  
 79% invested in:

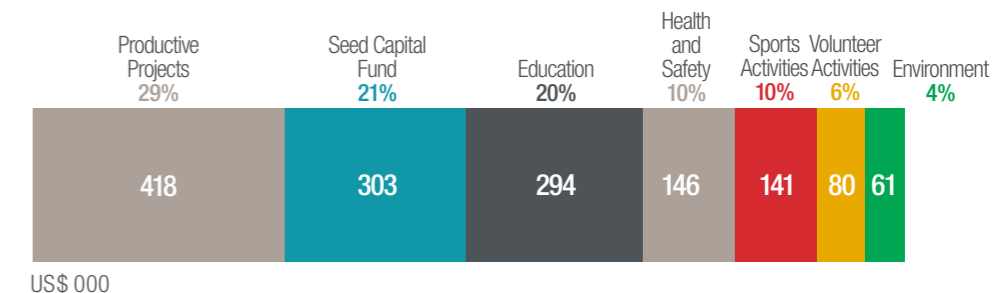
-  Education
-  Seed Capital Fund
-  Sports Activities



### Mining - Peru

Total investment  
**US\$1.441 million**  
 71% invested in:

-  Productive Projects
-  Seed Capital Fund
-  Education



The Infrastructure Division reported a total investment of US\$144,890 in 2019, with 44% for Seed capital, 27% for Productive projects, 10% Education, 7% Sports activities, 7% Volunteer activities, 4% Environment and 2% Health and safety.

The department also manages and accompanies the other areas that expend resources for the community. (For more information on our social investments, see GRI indicator 203-1 on page 369).

## Specific actions: Social Management and Community Development Model

The three stages of the Community Development Model are described following:

1. Responsible coexistence
2. Economic development
3. Human development

**1. Responsible coexistence:** Our priority is to ensure our operations coexist with the community in a healthy way, meaning a positive and healthy interaction in the places where the company operates. In support of this, we focus on the prevention and mitigation of the negative effects, and also ongoing and accessible channels of communication to address complaints and concerns.

**2. Economic development:** It is important to involve the community where the company operates, regenerating, strengthening and building the social weave, and thus, economic value. We build communities where residents want to work, live and invest.

**3. Human development:** Seeks to optimize the skills of the members of the communities where we operate, these being the principal actors in the development of their communities.

## Stage 1. Responsible coexistence

The Community Development model focuses on building a positive and healthy coexistence with our neighbors. For this reason, we do our work in strict adherence of caring for the environment and for our workforce, and we have designed open, ongoing and accessible channels of communication with the community.

We have the following tools in place to listen and properly attend to the community:

- 1.1 Participative social diagnostics
- 1.2 Community Care Service
- 1.3 Humanitarian aid

We also operate programs that address the matters that are most important to the community:

- 1.4 Water management
- 1.5 Environmental transformation

**1.1 Participative social diagnostics:** We are committed to due diligence processes to identify, prevent, mitigate and, as such may be the case, to remedy the potentially adverse impacts of all our business units. In support of this, we conduct participative diagnostics to hear the voice of the community and ensure decisions about operational and social plans are made together, considering the risks, needs and concerns of the community. It is important to note that participative social diagnostics have been prepared, based on a company procedure, for all the communities where we operate. See the chapter on Human Rights, page 276, for more information about these diagnostics.

**1.2 Community Care Service:** Our strategy to strengthen how we manage complaints, requests and concerns began to be developed at the end of 2018 and has since become our Community Care Service (CCS). This service includes different channels of communication that are available to the community. A lot of emphasis has been placed on raising awareness about the CCS with the community.

The Mining Division started to implement the CCS in 2019, in Mexico in February and October in Peru. Since then, we have received 123 reports related to the company, which were resolved within an average 14 days, while 82 of these reports were more general inquiries, including all types of proposals or requests for materials, products or support services, as well as concerns about issues for which information was sought. The other 41 reports were identified as complaints, including disagreements or nonconformities with negative situations perceived or real attributed to the company and our activities. The Infrastructure Division and ASARCO are expected to begin their implementation of the CCS in 2020. For more details about the CCS and how reports are handled, see the chapter on Human Rights, page 279.

“I’m thankful for the attention my call received and for all the actions the company has taken to resolve the issue. I didn’t think I was going to get an answer, certainly not that quickly.” – Resident of Cananea, Sonora

### 1.3 Humanitarian aid

Conscious that any emergency situation that would jeopardize the wellbeing of the community requires a strong and immediate response, the company delivers humanitarian aid to stand in solidarity with the population.

Following are examples of specific humanitarian aid actions in 2019:

#### Flooding in the state of Sonora, Mexico

Aid was delivered following the atypical rains that fell in November and December in the communities of Fronteras, Nacozari, Villa Hidalgo and the municipalities along the Sonora River. We provided machinery to repair highways and eliminate pools of rainwater. Community support was provided in the form of food baskets, water and we opened donation centers at Casa Grande. The US\$71,794 invested benefited 27,808 local residents.

#### Flooding in southern Peru

After the flooding from heavy rains in southern Peru, we undertook humanitarian aid actions in the regions impacted: Tacna, Moquegua, Arequipa and Apurimac. We provided machinery to repair highways, rehabilitated farmlands and drained pools of collected water. We also provided water to the local communities. These actions benefited 119,766 local residents with an investment of US\$807,242.

### 1.4 Water management

We’re conscious of the importance of water in the communities where we operate, which is why we use water efficiently in our operations (for more information on water management, see the chapter on Water on page 83), and we also offer technical advice to the municipalities and invest in water management projects.

The following 2019 investments in Mexico are highlighted:

- Guaymas, Sonora (168,000 inhabitants): a study of the drainage system was prepared to draft a master plan against flooding. Investment US\$87,179.
- Nacozari, Sonora (14,000 inhabitants): Studies were conducted on the main drainage collector and to locate new sources for supply and distribution to benefit the entire community of Nacozari. Investment US\$158,974.
- Sombrerete (San Martin), Zacatecas (58,000 inhabitants): A comprehensive diagnostic was prepared for the sewer system and the wastewater treatment system to identify the needs. Investment US\$18,614.
- Cananea, Sonora (36,000 inhabitants): Two studies were conducted, one of the clean water system (P\$2.8 million) and the second of the wastewater to look at potential usage (P\$850,000). Wells in the communities of Zaragoza and Zapata were equipped to supply the local residents, and the company is currently absorbing the costs for the entire operation.

We are planning to conduct water sanitation studies in the following municipalities in 2020:

- Sonora River: A wastewater study will be prepared in eight municipalities: Ures, Baviacora, Aconchi, San Felipe, Huepac, Banamichi, Arizpe and Bacoachi.
- Nacozari: A study will be conducted to optimize the distribution system in the community.

**Peru**

- Candarave province (6,102 inhabitants): The creation of irrigation infrastructure for the Cularjahuira dam for the Camilaca irrigation commission, Camilaca-Candarave-Tacna district will improve the quality of life of the local farmers, extending the harvest season to year-round by regulating water through the dam during the rainy season. The dam is expected to store up to 2,500 m<sup>3</sup> and represents an investment of US\$1,483,964.
- Moquegua (70,000 inhabitants): Installation of a quality clean water treatment plant and system, in accordance with local laws, for the Torata-Yacango, Moquegua District distribution system. In collaboration, the district municipality of Torata provided a 40.5 m x 26.0 m lot for the installation of the treatment plant. Investment of US\$222,042.

**1.5 Environmental transformation**

As our operations coexist with farming communities, we accompany these communities with environmental actions, such as the following:

With the support of 2,170 volunteers, we planted more than 10,750 trees in 2019 and recovered 58 natural spaces.

In Mexico, we received a recognition from the Comisión Nacional de Áreas Naturales Protegidas for our actions in support of the preservation of the sea turtle, and also for the construction of a hatchery.

Nacozari Tailings Project: A remediation project was started in November to address a historic community environmental liability located in Nacozari, representing an investment of US\$641,025.

"I'm appreciative of these connections where we have participated with Grupo México. They create co-responsibility between the community and private initiative to improve our environment."- Resident of Aquiles Serdan, Chihuahua

**Stage 2. Economic development**

The second stage of the Grupo México Community Development model seeks to regenerate, strengthen and build the social weave and economic value. We operate the following programs with major positive impacts in the community:

- 2.1** *Forjando Futuro*
- 2.2** Social infrastructure
- 2.3** Recreational centers (Tamosura and Pinacate)
- 2.4** Business Committee
- 2.5** Mine investment funds

**2.1 Forjando Futuro**

This strategic program contributes to improving the economic development of the community, offering job and skills training to increase the possibilities of successful integration into the job market, elevating the standard of living and training suppliers to optimize their competitive advantages in the industry.

The results of the *Forjando Futuro* (Forging Futures) program in 2019 are:

Peru:

- 88 adults and youth participated, from the districts of Cocachacra, Dean Valdivia, Punta de Bombon, Mollendo, Matarani and Mejia in the province of Islay.
- A first group of 34 youth was trained in the trade of welding, a second group with the same number of participants was opened, and 20 youth from the different SPCC operating units joined the program to complete their professional practices.
- In Cuajone, the program hired 1,100 local workers and brought in 16 youth to complete their professional practices at our operations.



In partnership with the Universidad de Sonora, Mine Engineering students complete their community service in our communities through the *Minero Pabellón* program.

#### Mexico:

- We awarded 100 high school scholarships in the municipalities along the Sonora River and Cananea, representing an investment of P\$1.0 million in partnership with the Sonora state government.
- Under the suppliers program, 35 trainings were held on Integral Strategies for Business Development, in which 88 businesspeople and entrepreneurs in the region of the Sonora River participated.
- The implementation of the *Forjando Futuro* program was strengthened through linkage with the Instituto Tecnológico Superior de Cananea and the Instituto de Capacitación para el Trabajo in Sonora. This program will provide training for 300 local residents to potentially join the workforce for the construction of our Buenavista Zinc project.

## 2.2 Social infrastructure

Our efforts have been focused on consolidating projects that promote growth under a vision of creating shared value with government authorities and social leaders to strengthen the economies where we are present.

The principal projects in this area are:

#### Mexico:

- US\$277,233 was invested in projects to supply water to communities. (See the section on the Community Development Model, Responsible Co-existence, page 325).
- The municipality of Nacozari de Garcia requires 120 liters of water per second (lps), of which 44 lps are for human consumption and provided through three wells and an aqueduct that draws directly from the water treatment plant (see <https://youtu.be/tFpSFUirRHU> and <https://youtu.be/pGRLv63y1jA>).
- The Cananea–Bacoachi–La Pera highway connects families safely, optimizing trade and driving the development of the more than nine communities connected with this 97 kilometer highway project. We invested P\$229.0 million in this project. (See <https://youtu.be/8BuRZxJxwhU>).

#### Peru:

- The Camana - Ov. Quilca - Matarani - Ilo - Tacna highway was built and improved along the Boca del Rio section in Tacna to improve the local vehicle and pedestrian traffic. A technical datasheet was prepared for the construction and improvement of the 52 km highway, Boca del Rio section, representing an investment of US\$352,475.
- We provided the infrastructure to ensure quality education for the student population through an improvement project at Colegio Fe y Alegría in Ilo, equipping 31 classrooms for students, two libraries, two labs, two computer labs, three workshops, two organic garden facilities and one psychomotor skills room, representing an investment of US\$78,117.

### 2.3 Tamosura and Pinacate recreational centers in Mexico

The Tamosura Park and the Pinacate Mall were built between 2010 and 2017, representing an investment of US\$39 million. These are unique social and family recreational places, promoting local businesses.

Thirty-nine micro and small businesses were operating in the park and mall in 2019.

#### Success Story

After graduating with a degree from culinary school and being passionate about health and exercise, Nadia Domínguez, returned to Nacozari with the idea of starting her own business. She was limited by a lack of capital at her young age, so she decided to start by selling cakes in the morning and in the afternoon, she worked as a gym instructor.

*“Two years after finishing school, I was given an opportunity that changed my life. I stopped working as an instructor and became the owner of the gym where I had been working. To be honest, it was my dream, but I didn’t have the capital to start the project. At 23 years old, who would have confidence in me to give me a loan? Then El Pinacate offered me the opportunity of a lifetime by covering the rent for three months. They believed in me and in the opportunities this would open for me personally and for my community. That’s how the story of Booster Gym began.*

Now, four months later and with over 500 clients, I am combining my two passions: training programs and diet plans. They gave me the key to keep growing and strengthening my business development. Now, I have two employees who are contributing to their household incomes. I am also helping people to improve their health, their outlook, and as a result, their bodies.” Nadia Domínguez. Owner Booster Gym

#### 2.4 Business Committee:

Our commitment to our value chain does not end with the purchase of a good or service, rather we seek to strengthen the value chain and this is why we set up business committees in strategic communities. These committees are made up of local businesspeople who come together to support social responsibility projects for their community where Grupo México is the lead company for 80 active businesses. These committees are created in the communities with the greatest economic spillover. This association has strengthened the image, positioning and relationships of our companies with the community and has generated spaces for open dialog, increasing the positive actions in the community.

Examples of success stories of these committees are offered following:

In 2019, the Business Committee decided to set up as a nonprofit, Todos Somos Cananea A.C., to foster social development through social responsibility actions, and also economic development. Of the 12,500 anticipated, 7,000 jobs have been created, actively participating in the economy of Cananea. These actions, in turn, contribute to a significant economic spillover that benefits approximately 6,500 of the 12,000 families in the community.

The openness of the business leaders, the interest and participation of more than 100 businesses and their families has improved the conditions and quality of life for the residents of Cananea, Nacozari and Esqueda through social responsibility.

#### 2.5 Mine investment funds

We paid US\$85.0 million in special mining rights in Mexico in 2019, 80% of which was earmarked for the Mine Production Zone Development Fund. In Peru, our income taxes contributed US\$120.0 million to the Mining Fund, distributed to local and regional governments.

For more information on these and other contributions, see GRI indicator 203-2 on significant indirect economic impacts on page 369.

Of the 12,500 anticipated, the **Business Committee** created **7,000 jobs** in 2019, actively participating in the economy of Cananea.



Our Casa Grande and Casa Nuestra community centers look after every detail to strengthen the social weave and improve the quality of life in our communities.

As a **socially responsible company**, we seek to offer **opportunities and services** that would not otherwise be available because of their remote location or the circumstances of the community.

### Stage 3. Human development

The community model acknowledges the individual as being at the core of development. Therefore, as a socially responsible company, we seek to offer opportunities and services that would not otherwise be available because of their remote location or the circumstances of the community.

The tools for Human Development include the following:

- 3.1-** Casa Grande and Casa Nuestra community centers and the Discovery Center
- 3.2-** Grant fund
- 3.3-** Volunteer activities
- 3.4-** Schools
- 3.5-** Emblematic projects

#### **3.1 Casa Grande and Casa Nuestra Community Centers**

These spaces look after every detail to strengthen the social weave and improve the quality of life in the communities where we work. The Casa Grande and Casa Nuestra infrastructure, equipment and personnel highlight the importance of the individual and renew the community pride of local residents.



**ASARCO**

ASARCO

**Mexico - Mining**

301	Nueva Rosita Plant
337	Zinc Electrolytic Refinery
339	Angangueo Project
344	Charcas Mine
352	La Caridad Mine Complex
353	Smelter Complex
358	Guaymas Ocean Terminal
359	Santa Barbara Mine
371	Santa Eulalia Mine
377	San Martin Mine
379	Taxco Mine
384	Cananea Mine Complex
392	Chalchihuites Project
394	Guerrero Negro
CC	Malls

**Mexico - Infrastructure**

400	El Retiro Wind Farm
402	Perforadora México
401	Salamanca-Leon Highway

**Peru**

Cuajone
Ilo
Toquepala
Michiquillay Project
Chancas Project
Tia Maria Project



Scan the code to learn more about Casa Grande

There are 17 Casa Grande community centers in Mexico (14 in the Mining Division and 3 in the Infrastructure Division) and 15 Casa Nuestra in Peru. These centers offer artistic, academic, human development, and physical exercise activities, among many others, for children, youth and adults, building social capital in the communities where we operate. Three out of every ten of our employees volunteer at these community centers, joining the efforts of the company to build, as a team and under co-responsibility, a better quality of life for our communities.



Dance class at the Casa Grande Community Center in Nacozari, Sonora, Mexico.

More than 178,000 people participated in the different social programs in these community spaces in Mexico and Peru in 2019, representing an investment of US\$2.7 million between the two countries. These projects drive social development in areas such as education, productive skills, health, sports, culture and caring for the environment.

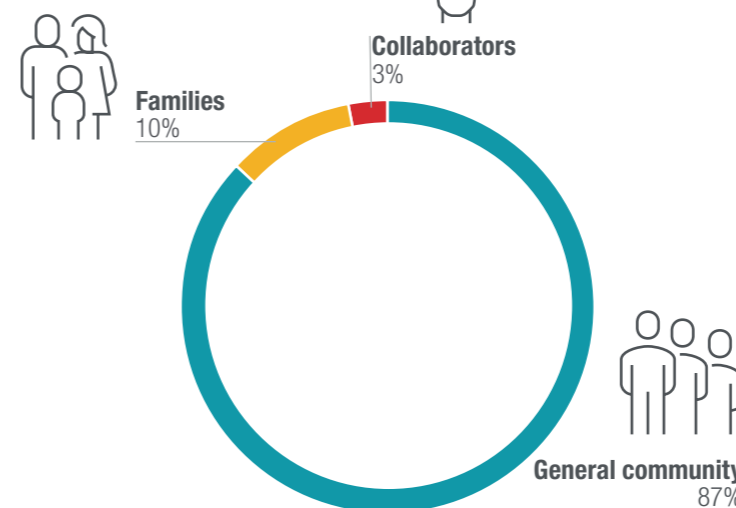
The programs are designed based on the context, the needs and the expectations of each community, identified through the Shared Value Diagnostic. These programs may be run only once or, depending on their success, may be replicated as good practices and become emblematic programs.

### Community Performance

The community actions of the Mining and Infrastructure Divisions **reached 178,677 people** in 2019



### Participants



**16,296 volunteers** were involved in our social programs:

- 78% community
- 22% company

Through co-responsibility, these volunteers gave their time, sharing skills and expertise in benefit of their communities.

## Mineral Discovery Center

Opened on February 13, 1997, the ASARCO Mineral Discovery Center is a mining museum that offers guided tours inside the company. The vision of the Discovery Center is focused on three actions:

1. Communicating the importance of mining.
2. Educating (conveying knowledge) students and teachers about the earth sciences.
3. Preserving a part of the history of mining in Arizona and in the western USA.

The Mineral Discovery Center receives an average of 17,000 local, national and foreign visitors each year. The Center includes a movie theater that shows three films about copper on a loop, a rock and mineral exhibition, plus an interactive space on the copper extraction process with visual aids, and also a store featuring local handicrafts considered by our neighbor communities to be one of the most diverse in southwest Arizona. There is a permanent exhibition on antique and recent mining equipment.

However, the greatest attraction is the guided tours offered to the public. These tours include a stop at a lookout point over the open pit Mission mine and a visit to the observation deck for the crushing and flotation process at the south concentrator, offering a unique experience for visitors to enjoy the copper process.

In 20 years, the Mineral Discovery Center has become a meeting point for people of all ages, and is part of the most important gem festival in the world (Mineral and Gem World).

## 3.2 Grant funds and seed capital

Social co-responsibility is generated in the communities where we work through grant funds, encouraging the community to develop projects of social benefit in different areas, such as sports, the environment, education, culture, civil protection, production and health.

More than 656 projects have been approved since 2009, representing a **social investment of P\$132.0 million.**

A good project must be viable, sustainable and inclusive, reaching more than 40% of the population; respond to a need felt in the community, be innovative, and in the case of productive projects, endeavor to diversify the local economy to potentially create jobs for local residents.

The Community Development Model offers diploma courses in project development to community leaders who are working on project proposals. These proposals are submitted to the Community Committee (formed with representatives from the community and participation from Grupo México) to evaluate the points described above. Approved projects receive seed capital (according to the budget approved for each project and the support is delivered in kind).

A determined amount is allocated as a seed capital fund every two years, and in respect for the context of each business unit, to invite community engagement through the structuring of projects to resolve problems they have identified and contribute to their development. These projects are financed in kind. The budget is set by groups of key players in the community (community committees). Each project has a lifecycle of between six and 12 months, approximately. During this time, the accompaniment of the company and the members of the committee are key to ensuring the project can continue to operate in the community on its own.



Scan the code to learn more about Seed Capital

### 3.3 Volunteer activities

The company promotes the value of co-responsibility. In **2019**, 16,296 volunteers participated in our social programs: youth, businesspeople, homemakers and our collaborators joined the efforts as part of the community development plan.

Some of the highlighted volunteer activities are recovering spaces, mass tree planting, adopting institutions that work with vulnerable groups and sharing knowledge, among many other actions.

A success story is the **Cananea Summer Course**, which brings together more than 300 volunteer youth, who over a month work with the participating children. The volunteers develop skills such as leadership qualities, teamwork, resilience, decision-making and group management.

#### Corporate volunteers

We encourage our collaborators at all our operations to volunteer, sharing their professional skills and time to lead training programs, informational talks, plant trees and recover spaces.

#### Youth volunteers

We recognize youth as being the drivers of initiatives for positive transformation in their environment and the future agents of change. In this regard, we form groups of youth volunteers where we foster their personal development and leadership through participation in social innovation projects and co-responsibility in benefit of their community.

#### Spouses of collaborators

As part of our efforts to promote gender equality and empowering women, we encourage the wives of our collaborators to volunteer in human development and improvement projects in their immediate surroundings.

All volunteer actions are a reflection of shared responsibility between the community and the company. Our volunteer programs are institutionalized and follow ethical guidelines that all participants are required to observe.



Youth develop skills such as leadership qualities, teamwork, resilience, decision-making and group management.

Scan the code to find out more about Volunteering





All Grupo México schools have education psychology departments.

### 3.4 Education - Schools

Our four schools in Mexico and seven in Peru offer access to basic education for the children of our collaborators and the community. More than 3,600 students are enrolled in official study programs and also participate in a bilingual program where they learn English.

We have complemented our school learning activities with different support programs for students and parents to foster the comprehensive education of the students at our schools:

- **Psychological education support and strengthening:** We hold family workshops and mental health fairs to promote the development of socio-emotional skills, and offer psychological accompaniment and support for families with students who have special educational needs.
- **Nutrition program:** Raises awareness and offers training through nutrition workshops for students and families on the importance of healthy eating, physical activity and the impact on overall health. The program also supports the commitment of preparing healthy menus in our school cafeterias.

The company invested US\$6,919,000 in 2019 in our 11 schools in Mexico and Peru, guaranteeing a quality service according to the education needs of the local children and youth.

Our schools in **Mexico** attend **2,145 students** with **140 teachers.**

In **Peru**, **1,507 students** are enrolled at our schools with **163 teachers.**

✓ **ASARCO<sup>1</sup>**  
0% dropout

✓ **FAIL RATE<sup>2</sup>**  
0.1% fails

✓ **EDUCATION PSYCHOLOGY**  
100% of our schools have education psychology departments

✓ **GRADUATE RATE<sup>3</sup>**  
100% of students complete their basic education

✓ **PERSONALIZED ATTENTION<sup>4</sup>**  
100% of students receive one-on-one attention

✓ **ENGLISH CLASSES**  
About 4,000 students learn English as a second language



Scan the code to learn more about Grupo México's educational programs



The orchestra program offers children and youth the opportunity to develop values, teamwork and to be goal-oriented, through learning and playing orchestral and choral music.

### 3.5 Emblematic projects

Grupo México community development model operates programs with defined goals of social transformation in the medium term, applying a methodology that measures the scope of positive results among participants.

**Symphony orchestras:** Instructional model that promotes social development among children and youth through the common thread of music. This program enhances cultural spaces, traditions and local roots. We had two company orchestra programs in 2019: La Caridad Symphony Orchestra in Nacoziari (which gave its debut concert in May 2019) and the Buenavista del Cobre Symphony Orchestra in Cananea (which held auditions and began classes).

The launch and operation of each orchestra represent an investment of US\$310,000 with the participation of seven professional musicians to achieve the goals of the program.



Scan the code to learn more about the orchestra project.

- 15 class hours per student each week
- Debut concert six months after starting the program
- Four sessions on values, co-facilitated by parents
- Monthly meetings with parents to share feedback on performance
- Five hours of volunteer community service each month, per family

People who play an instrument develop important physical, motor, sensory and emotional skills, characteristics that aid in effective integration to build a healthier society, with creativity and productive energy.

“To our surprise since Samantha joined the orchestra, she has not experienced any episodes related to her Marfan syndrome because her health has improved a lot, she hasn’t had seizures and her self-confidence has helped her to express herself better with others.” Student’s mother

The symphony orchestras add to and showcase the many activities on offer at Casa Grande. This is an innovative program that accompanies the student in their growth from no knowledge of music to playing medium difficulty pieces in just four months. The two orchestras currently have a total 325 students, 125 in the La Caridad Symphony Orchestra and 200 in the Buenavista del Cobre Symphony Orchestra.

**Swim team:** The company operates a sports school program, in which more than 7,400 youth in Mexico participate in different disciplines. A highlight is the swim program, which since 2015, has been training high-performance swimmers.

The Tamosura sports facilities, where there is a semi-Olympic sized swimming pool, has been the training center for 24 youth, aged 8 to 20, representing the best of the swimming discipline in 2019.

Proud of their commitment to the community, on April 13 and 14, 2019, on the initiative of the team, the first *“Nadación con causa”* (charity swim) was held in Cananea. The team swam 88,550 meters in relays for 24 hours straight, raising more than P\$17,000 for the Centro de Atención Múltiple #3 de Cananea. This money was used to create a multisensory classroom for students with disabilities.

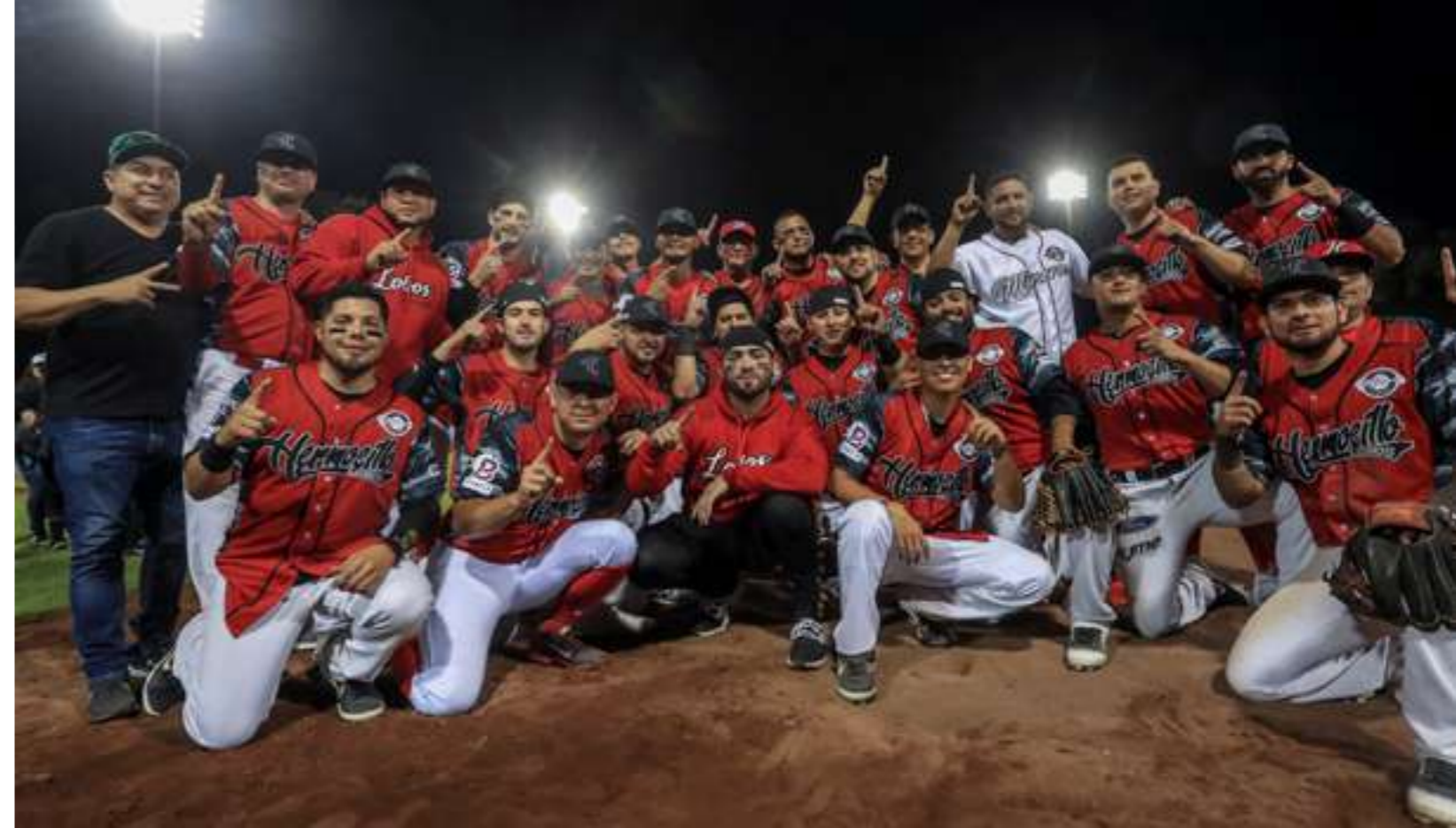
“It’s really great to see youth helping other youth. They are youth from our community; they are the first team and they are pioneers in an institution that is growing and helping others.”

Sofia Alatorre, mother of one of the athletes

“Swimming for the national team is a big responsibility ... I need to keep training ... improving my times ... I represented Sonora this time, but I can also represent Mexico.”

Kariela Palazuelos, proud to represent Cananea, Sonora

Scan the code to learn more about the Swim Team program



We continue to promote sports in our communities through clinics and tournaments. Our mining baseball league is taking this work nationwide.

**Mining Baseball League:** The first mining baseball league was held with the participation of more than 1,700 players, including collaborators, contractors and members of the community. This program represented an investment of P\$3.7 million.

The Mining Baseball League is a strategy driven by the Department of Mining to foster camaraderie among the Mexican mining sector through sport.

To prepare for the Mining Baseball League, the company held a company tournament at all our operations and mine projects in Mexico, in which 74 teams participated from across the country, from which, 16 winning teams represented each of the company’s mine operations.

The final of the Mining Baseball League was played at the Fray Nano baseball stadium in Mexico City. The Department of the Economy, the Department of Labor and Social Welfare and the Department of Mining led the initiative. The Grupo México team from Hermosillo was crowned the champion.

## Evaluation mechanisms

### 103-3

We reaffirmed our commitment to sustainable development in 2019 and to creating shared value in our neighbor communities, reaching 178,677 people with our Community Development programs, strengthening the harmonious relationships with our stakeholders and the environment.

Some of the social programs at our Mining and Infrastructure Divisions' 16 Casa Grande community centers in Mexico and 10 Casa Nuestra community centers in Peru are highlighted following:

Our management system is reviewed periodically according to the following aspects:

1. Annual performance indicators for the Community Development Model
2. 2022 Sustainable Development corporate goals
3. United Nations 2030 Sustainable Development Goals
4. Procedures and audits
5. External communication on performance
6. Improvement process

We reaffirmed our commitment to sustainable development in 2019 and to creating shared value in our neighbor communities, reaching **178,677 people with our Community Development programs.**

## 1. Annual performance indicators for the Community Development Model

Reports are prepared on the goals achieved and performance of the Community Development Model in relation to the programs and activities conducted, the participants, people reached and volunteers, as well as financial spending.

The reports are produced monthly and an annual report compiles the monthly assessments. The principal results of our social performance in 2019 were:










- 9,607 activities under 362 programs
- Community volunteers: 12,693
  - Personal volunteers: 10,641
  - Professional volunteers: 2,052
- Hours volunteer service: 74,000
  - Hours personal volunteers: 59,613
  - Hours professional volunteers: 14,387
- Corporate volunteers: 3,603
  - Employees: 986
  - Workers: 458
  - Unionized personnel: 225
  - Retirees: 28
  - Contractors: 684
  - Family members: 1,222
- Hours corporate volunteer service: 22,181



- Participants and people reached: 178,677
  - Employees: 1,843
  - Workers: 1,884
  - Retirees: 515
  - Contractors: 1,018
  - Family members: 17,751
  - Community: 155,666
- Social investment in 2019: US\$40.2 million
  - Community development programs, social linkage and productive projects: \$10.5 million
  - Operating expenses for SCC schools and neighborhoods: \$18.5 million
  - Infrastructure, works and equipment in communities: \$10.1 million
  - Infrastructure in SCC neighborhoods: \$1.1 million

The count is by participations, therefore one person can receive more than one benefit per program and will be recorded more than once in the annual record of results.

The highlights of the Mining and Infrastructure Divisions' community programs are offered following:

 Good Neighbors	 Human Development	 Economic Development
 Environmental transformation +2,170 volunteers participating in tree planting, with +10,750 trees planted and 58 natural areas recovered	 Educational competencies +1,940 training hours in open education for +1,000 adults  173 Scholarships awarded  +126,680 training hours in mathematics, computer studies and English for +6,920 people	 Prevention in health and safety +3,900 free medical consultations for the community  +850 training hours in nutrition, disease prevention and healthcare for +3,040 people  123 sports clinics, soccer, baseball, basketball, etc.
 Citizenship and development +1,150 hours training to: <ul style="list-style-type: none"> <li>• Promote social peace, justice and human rights</li> <li>• Strengthen citizen and institutional engagement</li> </ul>	 Social wellbeing and quality of life +2,030 training hours in artistic and cultural activities (music, singing, painting, theater, etc.) for +8,070 participants	 Productive skills +23,480 training hours to develop productive skills with +5,500 participants  1,490 training hours to produce organic gardens or improve crops, reaching +2,620 people

## 2. 2022 Sustainable development corporate goals

The Sustainable Development department, which covers the areas of Health and Safety, Environment and Community Development, set goals for 2022.

Five of the goals correspond in whole or in part to the Community Development department. The progress made in 2019 to achieve these goals is detailed following:

### 1. Allocate at least 2.5% of the net earnings to investments in projects that contribute to the Sustainable Development Goals (SDG).

Approximately 3.0% of our net earnings were invested in corporate social responsibility, contributing to the SDG in our neighbor communities. Adding in our social, environmental, and workplace health and safety programs, this figure increases to nearly 20%.

### 2. Institutionalize the process to identify and attend to the indigenous communities near our operations.

The company invested US\$48,615 in 2019, to institutionalize the process of attention for the indigenous communities. We contracted a Mexican consulting firm specialized in identifying indigenous communities and peoples in specific areas of influence around our projects and operations, and also to advise on the drafting of the Grupo México Policy on Respect for the Rights of Indigenous Communities and Peoples with the respective mechanism for implementation: Indigenous Communities and Peoples Action Protocols, which took into account the participation of the interested parties.

Both documents are expected to be formalized in 2020. (For more information about the identification and attention for indigenous communities, see the chapter on Indigenous Peoples, page 381).

### 3. Implement a system for handling grievances from outside stakeholders near the operations of the Mining Division.

Grupo México began developing a strategy at the end of 2018 to strengthen the mechanism for handling grievances, known as the Community Care Service (CCS), in consultation with the United Nations Office of the High Commission on Human Rights in Mexico.

The feedback received through the Community Care Service (mechanism for addressing complaints and concerns) referring to impacts on the community is addressed and, where appropriate, considered for the ongoing improvement process.

The Mining Division started to implement the strategy in 2019, in February in Mexico and October in Peru. The Infrastructure Division and ASARCO will roll it out in 2020. (See the section on Community Development, page 279).

### 4. All company-sponsored schools achieving better academic results than the respective national averages.

The company developed the Quality Education Assessment Model to identify and compare teaching processes at the regional, national and international levels, aligned with the Sustainable Development Goals and the institutional development plans of Grupo México and SPCC, starting the second half of 2020.

An ongoing training program in which 100% of the teaching staff participated, led to most of our schools ranking about the national performance averages in their respective countries in the official academic achievement assessments - which place emphasis on measuring competencies in their mother tongue, Spanish in this case, and mathematics as both are languages and therefore are the basis for accessing other areas of knowledge.

### 5. Implement an institutional program for the development of local small and medium providers.

The structuring of a new component for the Forjando Futuro (Forging Futures) program began in 2019, the development of local small and medium suppliers.

The strategic opportunity for the development of this program arose from one of the most important operational investments made by the company in recent years, US\$413.0 million for the construction of the Buenavista Zinc Concentrator Project in Cananea, Sonora.

A collaboration agreement between the Sonora State Job Training Institute, the Instituto Tecnológico Superior de Cananea (Itescan), and Grupo México will take effect in 2020, whereby the state governor will sign as witness to the commitment to certify skills in the community of Cananea, including local and regional suppliers.

A **collaboration agreement** between the Sonora State Job Training Institute, the Instituto Tecnológico Superior de Cananea (Itescan) and Grupo México will take effect in 2020.

### 3. United Nations 2030 Social Development Goals

The Community Materiality of the company was developed considering the three principal dimensions of the Global Reporting Initiative (GRI): environment, social and economy, for the development and measuring of our programs and projects.

The 12 topics of Community Materiality are in harmony with each SDG and aligned with our Community Development Model as shown following:

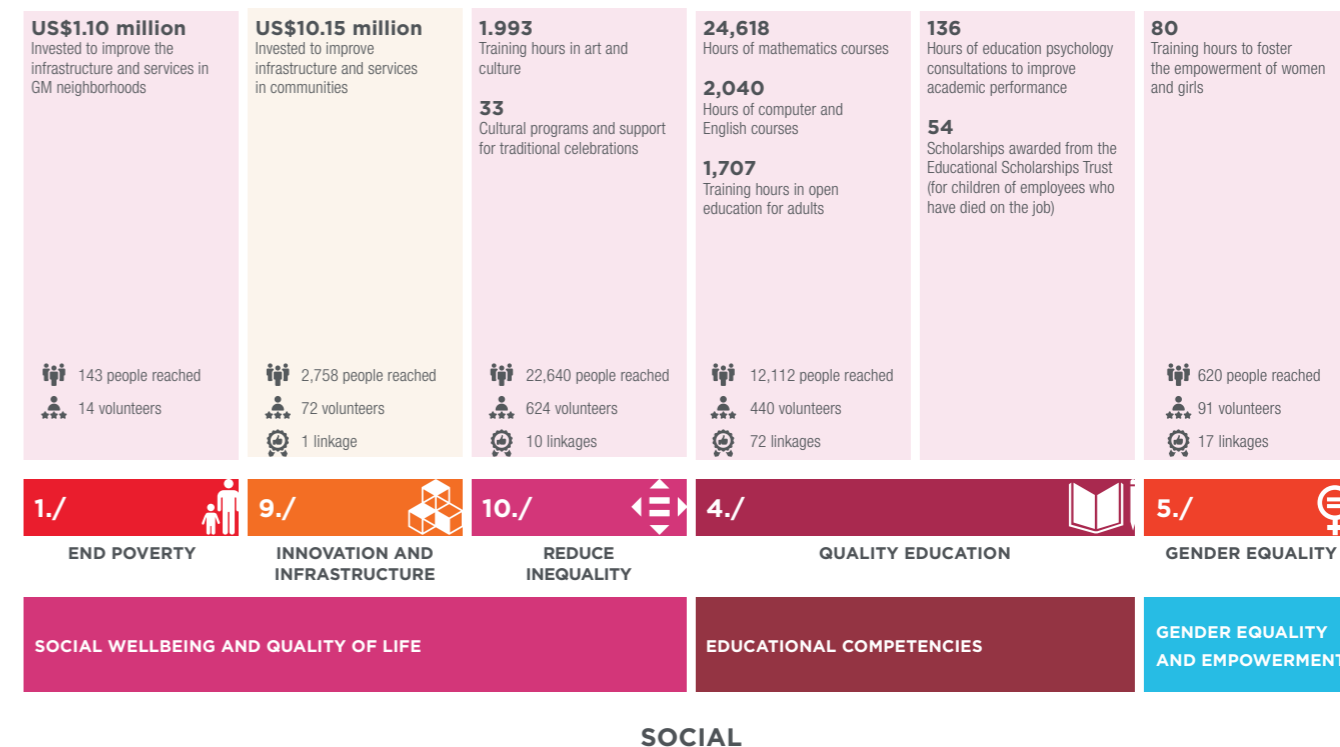
MODEL	MATERIALITY GRUPO MÉXICO COMMUNITY DEVELOPMENT	SUSTAINABLE DEVELOPMENT GOALS (SDG)
<b>Good Neighbors</b>		
<b>Human Development</b>		
<b>Economic Development</b>		

The results of our 2019 community performance are presented following, classified and related to both the 12 material topics of the company and the SDG:

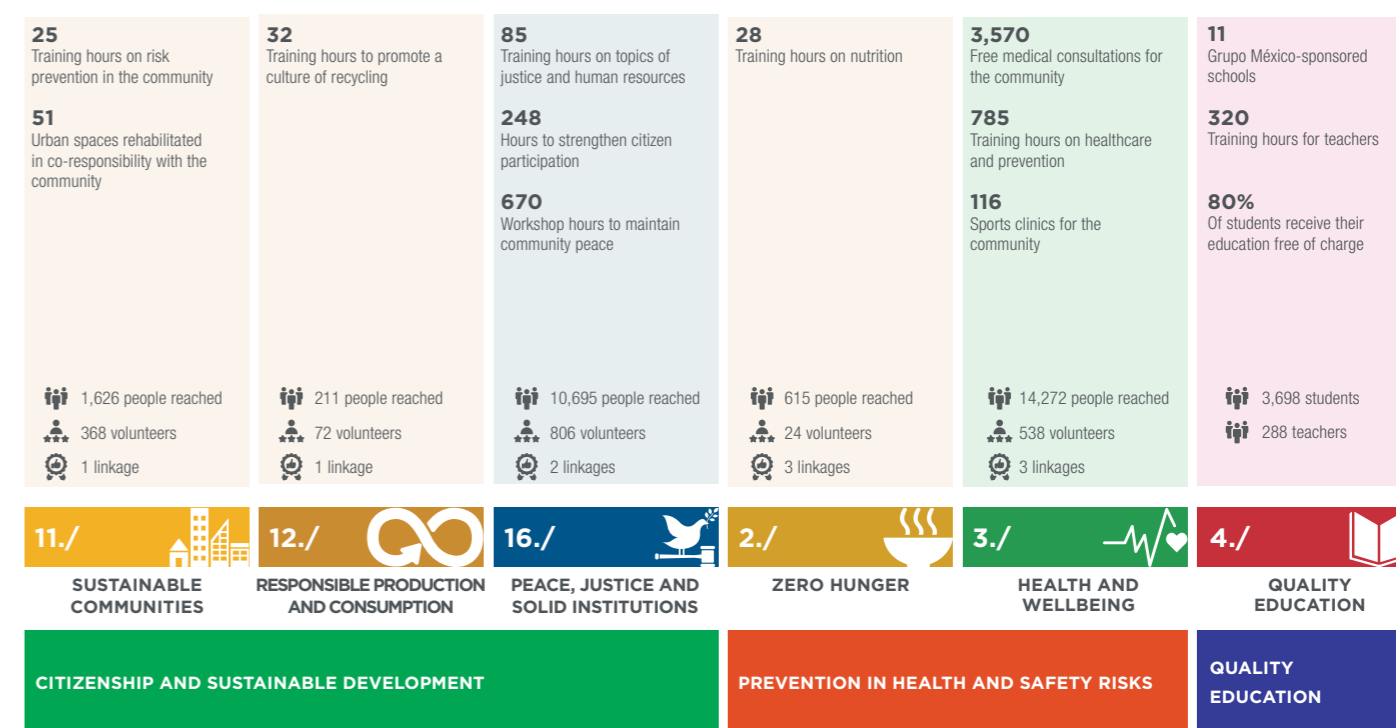
#### Environmental Results



#### Social Action Results - 1



#### Social Action Results - 2



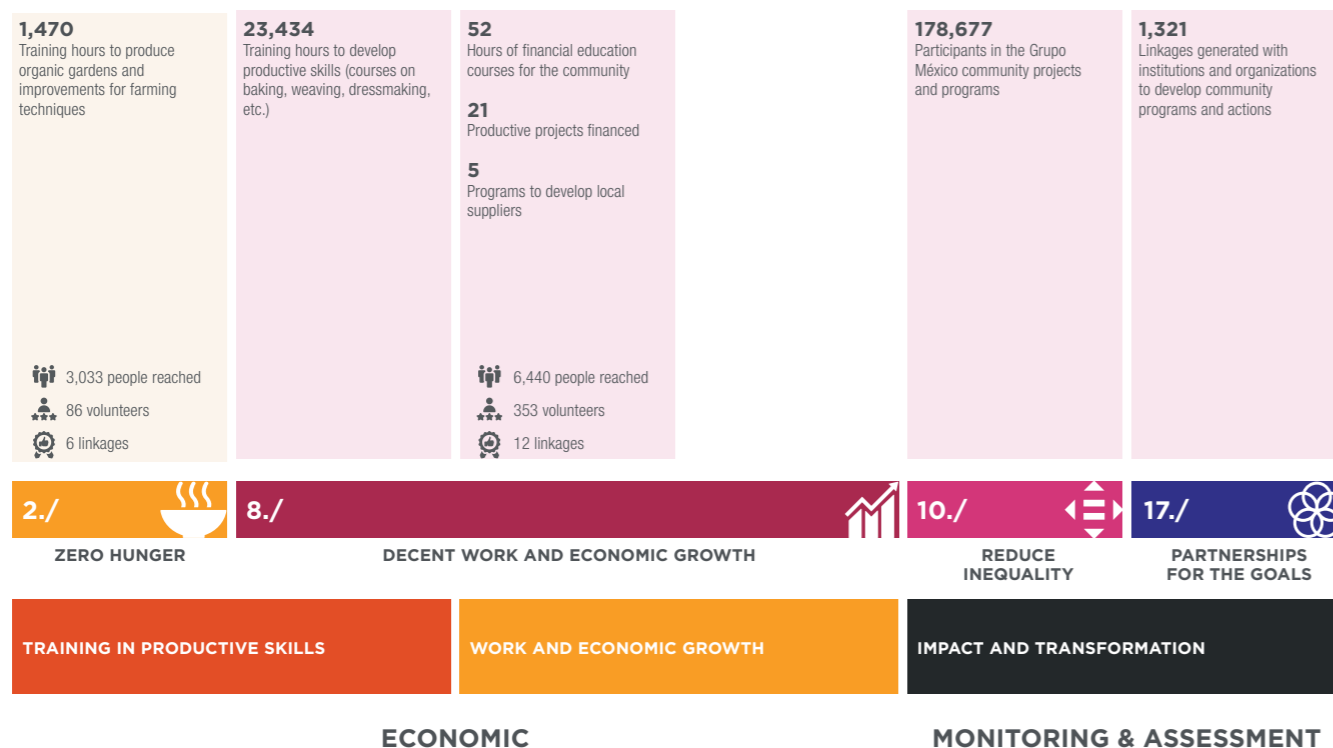
**25 hours of training** in preventing risks in the community.

**51 urban spaces refurbished** in co-responsibility with the community.



The La Caridad Symphony Orchestra project accompanies the student in their growth from no knowledge of music to playing medium difficulty pieces in just four months.

### Economic Actions Results



## 4. Procedures and audits

The methodology for measuring performance, and also evidence gathering, is based on two department procedures: Operating Procedure for the Comprehensive Measuring System and Evidence Management Procedure.

Also, internal cross-audits are conducted, where the team from one business unit evaluates compliance with procedures and the performance results for another.

In the specific case of the El Retiro Wind Farm in Juchitan, Oaxaca, an independent audit is conducted annually as stipulated by investors based on the Equator Principles.

One of the focal points of this audit is social performance in terms of Community Development actions, relationships and agreements with stakeholders, handling complaints and concerns, and investments in community infrastructure, among others.

In the last audit, conducted in 2019, the observations were positive in terms of continuity and improvements in our service to the community.

## 5. External communication on performance

The actions identified in the following concentric circles refer to the communication in question on the performance of our programs:

**Community:** Community Fairs are held in all the communities where there are Casa Grande or Casa Nuestra centers. The community gets to know the different activities on offer during the year at these events. The projects awarded Seed Capital present their results at these events, and there are also presentations by the participants in the artistic and cultural workshops, showcasing their progress (dance, art, music, etc.). Volunteers report on their activities and the community committee reports their achievements during the year, among others.

**Local and state authorities:** To implement coordinated actions, under co-responsibility and shared value, there is a close relationship based on constructive dialog with authorities at the different levels of government, in addition to different local stakeholders, participants and volunteers in the Community Development programs. They are also part of the external network that receives our results on large or small scale. Added to this, we disseminate information through both the corporate social networks and those of the Community Development department, the media and reports.

**State and national agencies:** Grupo México is a member of different industry chambers and associations with which we share our performance results to add these to the results of other members for public reports. Some of these agencies hold exchange forums or edit compendiums of good practices in Community Development, where the company also participates.

**Multinational bodies:** The Casa Grande Community Development Model was included in the publication of the Interamerican Development Bank “The Extraction Sector and NGOs: When the work of communities, governments and industries is synonymous with development”. We also report our performance to Mexican and international rating agencies, with one of the most important being that which informs the Down Jones Sustainability Index.



## 6. Improvement process

In 2018, the company decided to institutionalize the social assessment process for our Community Development Model to strengthen its effectiveness with the addition of standards and indicators of sustainability frameworks as the driving forces of quality and compliance.

The goals of standardizing the Impact Measurement methodology are:

- Align and focus the company's efforts on social programs in our communities.
- Monitor the performance of our operation in real time.
- Gather the information necessary for rating agencies, performance and reports, and certifications.

The following references were used to refine our reporting mechanisms and establish parameters within the impact measuring process:

- Global Reporting Initiative (GRI)
- UN Sustainable Development Goals (SDG)
- Social Return on Investment (SROI), selected based on the IRIS+ System Standards Catalog issued by the Global Impact Investment Network
- OECD Better Life Index (BLI)
- Social Progress Index (SPI)
- Global Compact
- ISO 26000

The following principles, indicators and frameworks were taken into account to update the diagnostics:

- Standard EITI 2019 (Extractive Industries Transparency Initiative)
- Envision Sustainable Infrastructure Framework - ISI (Institute for Sustainable Infrastructure)
- Initiative for Responsible Mining Assurance (IRMA)
- United Nations Guiding Principles for Companies and Human Rights (UNGP)
- Sustainable Development Goals

## Operations with local community engagement, impact assessments and development programs

### 413-1

All Mining and Infrastructure Division operations in Mexico and Peru have different community engagement programs, the principal objectives of which are to identify the potential negative and positive impacts of the operation, concerns, complaints and wishes of the community, to then define a social management plan, together. These participation mechanisms are operated through each of the areas of the Community Development Model described here.

The participative social diagnostics are prepared when there is interest in undertaking a new investment project and are revised every two years for all business units in Mexico and Peru. This is the principal tool for identifying the positive and negative social impacts, together with the communities, involving focus groups, workshops, semi-structured interviews and surveys.

We also have a company procedure to ensure the methodology clearly defines the activities considered, and also the coordinator for each, so that the results of the diagnostic can be used as the basis for the development and evaluation of the Community Development operational plans.

A Participative Monitoring and Supervisory Committee was set up in Peru in 2017 as part of the commitments undertaken by the company under the framework of the environmental impact study for the Toquepala concentration expansion project and the heightening of the tailings dam at Quebrada Honda.

The committee is a mechanism for citizen engagement, made up of members of the civil society, authorities and company representatives, who actively participate in the quarterly environmental monitoring established in the environmental impact assessment. We also run campaigns to share results and receive the environmental concerns of the population.

The committee sets an annual plan for its activities, which is executed with the support of the company in compliance with the mining laws in Peru.

There is a Community Committee in place at all Mining and Infrastructure Division sites in Mexico and Peru. These committees are made up of an inclusive group of volunteer men and women whose principal role is to serve as citizen liaisons between the community and the company. They collaborate to define the priorities for the location

and the mechanisms for social engagement. They also act as citizen auditors, ensuring transparency and proper use of resources, as well as representing different sectors of the community, favoring economic, social and cultural development (as is the case of the invitations to submit proposals, which receive Seed Capital).

These Community Committees also help with the analysis of priorities from the social impact assessments the company prepares to identify the needs of the community and prioritize issues of greater urgency.

Community leaders serve on the community committees, with a known track record of ongoing, known and active participation in favor of development and achieving goals for the collective good.

To ensure the committees are pluralist and inclusive, representatives of the health, education and business sectors are invited to participate, as well as youth and members of vulnerable groups, among others, aware also of gender equality and perspective.

Community leaders serve on **the community committees**, with a known track record of active participation in favor of development and achieving goals for the collective good.

When the company arrived in the Zapotec community of La Ventosa in Juchitan, Oaxaca in 2014 to operate a wind farm, the social challenges present in the region between the community and industry had led to much distrust.

After various months of dialog and listening, the owners (of the land where the wind farm is installed) decided to give the Community Development Model an opportunity and, with this, a Community Committee was created to launch the first invitation to submit proposals, where the community leaders shared their initiatives to respond to the needs identified in their context.

With the approval of the first 15 projects, both the landowners and the population of La Ventosa identified an opportunity to resolve local challenges, thanks to the active and co-responsible participation of the community hand-in-hand with the company.

Today, the Community Committee, made up of regional leaders, considering landowners, and also representatives from the community and the health and academic sectors, has authorized more than 60 projects and they have participated in the evaluation, selection, advisement and monitoring of the initiatives approved. These initiatives include those that focus on revitalizing the Zapotec culture by teaching the traditional embroidery and the mother tongue, as well as the projects led by youth on promoting urban art and sports schools for children.

Lastly, there is a Community Care Service (CCS) that receives concerns and complaints from the community to maintain close channels of communication with the local residents. The CCS offers service in all the communities in all the countries where the company has operations.

## Operations with significant actual and potential negative impacts on local communities

### 413-2

All mine operations carry the possibility of generating significant impacts in the communities where we operate. As a result, the company has a series of management policies and procedures in place, which assess different types of risk, environmental, labor, health, occupational safety and those related to human rights.

These risk management policies and procedures are described in the chapters on Local Communities, Indigenous Communities, Human Rights, Our People, Labor Practices, Environment (water, biodiversity, climate change and waste) and Occupational Health and Safety.

There was no significant impact in Mexico, Peru or the United States in 2019, understanding significant impact as any the authorities define as requiring remediation, such as displacements, loss of traditional territories, resettlements or invasion of the cultural intimacy in the communities that neighbor our mine operations.

## Number and description of significant disputes involving land use and customary rights of local and indigenous communities

### MM6

In reference to this indicator, disputes are defined as conflicts between the company and the community affected involving land use and the customary rights of the local and indigenous communities. Disputes are considered significant when they cannot be resolved together within a reasonable time, they repeat, are generalized or would carry financial or legal consequences, or would potentially harm reputations for the community or the company in the long term.

Under this definition, there were no significant disputes in 2019 involving land use or the rights of indigenous communities or peoples at any Mining or Infrastructure Division operation of the company. Although no such disputes arose between the company and the communities, we are aware of various nonconformities where the community invites us to get involved on being important to them. These nonconformities are mentioned following.

### Mexico

#### Bacanuchi, Arizpe, Sonora

Members of the Bacanuchi community turned to the Mexican Supreme Court in 2015 because they felt they should have been consulted before the preliminary environmental impact assessment was approved for the New Tailings Dam at Buenavista del Cobre, although the laws do not require a consultation for these instruments of environmental regulation. The Mexican Supreme Court asked the Department of the Environment and Natural Resources (referred to by the Spanish acronym SEMARNAT) to explain to the community at a townhall meeting, how the preliminary report was evaluated and the considerations for its approval, including the safety measures for the tailings dam. SEMARNAT has held two townhall meetings where local residents have received information and expressed their concerns, although most of these concerns were not related to the preliminary report, rather they were about repairing roadways, the need for healthcare at the clinic and information about the water conditions. Independent of the court's decision on compliance by the SEMARNAT, the company has strived to accompany the community, installing a team of three specialists from Community Development, who have opened channels for dialog in addition to launching activities in benefit of the community.

#### Juchitan, Oaxaca, Mexico

The relationship between the wind energy industry and the communities in the Tehuantepec Isthmus has some special characteristics that reflect the traditions of the region. These include the continual request of the landowners (of the lands leased for the operations) to hire certain people to work at the wind farm. Grupo México's response to these requests is the implementation of programs like *Forjando Futuro* (Forging Futures), which offer training in trades. We have made investments in the technification of their ranches to support their farm and cattle production, and offered trainings on farming techniques, in addition to support with seed capital and consulting on productive projects for community leaders.



## Peru

### Michiquillay

The companies that had previously held the concession on the Michiquillay Project made efforts to communicate the information about the places for drilling and footprint of the copper deposit. However, these actions were not successful and in 2014, the concession was returned to the Peruvian state. In February 2018, Grupo México was awarded this extraction prospect.

Between 2014 and 2018, according to the authorities of the Michiquillay Village Community, a group of families took possession of community spaces, where the footprint of the project is located.

The squatters did not recognize the community authorities and sought their own recognition. They have stated to Southern Peru that any negotiation must be with them directly and to not reach agreements about “their properties” with the Michiquillay Village Community. The Company has met with the leaders of both groups. However, we have been clear that this is an internal problem within the community, which we will monitor, respecting the decision they reach by mutual agreement. We have also begun our Community Development work in the area, in coordination with the community authorities and reaching all local residents without distinction, supporting them with human and productive development.

### Candarave

In August 2019, the Peruvian government created a Roundtable to address the water problem in Candarave province in the Tacna region. Officials from the federal government, the regional governor of Tacna and mayors from the province of Candarave participated in this space. Our operation in Toquepala is situated in a neighboring province, Jorge Basadre, and draws from some of the water infrastructure components in the province of Candarave.

We have asked to join this group to collaborate in the search for solutions to improve the water supply for the community and farming, sharing our expertise in water infrastructure techniques. This space has given us the opportunity to present our water management work at the Toquepala operation and to show, with efforts, that we are part of the solution to fostering common wellbeing.

## The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and indigenous peoples, and the outcomes.

### MM7

The company has attended all complaints, concerns and requests from the community received through the Community Care Service (CCS) system. In all instances, we have installed a team of at least two Community Development specialists in the community, who have opened channels for dialog and trust, in addition to launching strategic activities in benefit of the community based on the Community Development Model (responsible co-existence, human development, economic development).

## Infrastructure investments and services support, and significant indirect economic impacts

### 203-1 and 2

Grupo México has positive effects on the local economies through our operations and investments in our local communities. Indirectly, our impact is through paying taxes and contracting local suppliers. Of equal importance, the company makes voluntary investments with impacts on the economic wellbeing of the community.

In terms of the taxes the authorities transfer directly to the community, in 2019, Grupo México paid US\$85.0 million in special mining rights in Mexico, 80% of which form part of the Fund for the Development of Mining Production Zones to execute public infrastructure works projects.

In Peru, US\$119 million was paid into the Mining Fund, which is distributed to the local and regional governments to finance public investment and infrastructure maintenance projects. Also, we contributed US\$5.8 million via the Works for Taxes program and the Development Funds, to support 27 water infrastructure, educational, sports and cultural projects, and also 121 environmental, economic development, health promotion and human development service projects, among others.

Added to this, we contracted 1,182 local suppliers in 2019, which created 12,501 jobs. Of these suppliers, 67 % are micro, small and medium companies.

The company voluntarily invested US\$29.0 million in infrastructure and services focused on strengthening the social weave and wellbeing, noting:

The company invested US\$6.9 million in our 11 schools in 2019. This investment, together with an ongoing training program in which all teaching staff participated, led to 10 of our 11 schools scoring above the national averages in Mexico and Peru in the official testing.

The city of Juchitan lost most of its hospital infrastructure following the disastrous 2017 earthquake in Mexico. In response, we donated US\$6.7 million to build a new hospital for this community.

Our investments this year are detailed following:

Type of Investment	Category	No. projects	Invested in 2019
Infrastructure	Water	19	\$ 4,330,405
	Education	2	\$ 93,450
	Health	3	\$ 6,994,143
	Cultural	1	\$ 21,997
	Transport and communications	7	\$ 3,482,780
	Environmental liabilities	1	\$ 500,000
	Other	8	\$ 1,189,396
	<b>Subtotals</b>		<b>41</b>
Services	Environmental conservation	3	\$ 26,525
	Economic development	30	\$ 1,758,112
	Education	53	\$ 6,945,749
	Cultural	18	\$ 167,883
	Health promotion	8	\$ 140,311
	Sports	25	\$ 74,807
	Social participation	66	\$ 3,572,258
	Human development	5	\$ 52,325
	Other	19	\$ 476,921
Subtotals		227	\$ 13,214,895
<b>Total</b>		<b>268</b>	<b>\$ 29,827,068</b>

The company voluntarily invested **US\$29.0 million in infrastructure and services** focused on **strengthening the social weave and wellbeing.**

Project Name	Goal	Spent (2019)	% progress	Impacts in the communities	
				Impact generated	Description
Hospital in Juchitan de Zaragoza, Oaxaca	Fill the healthcare needs of the residents of Juchitan de Zaragoza, Santo Domingo de Tehuantepec, Matias Romero and Salina Cruz, the most affected in the region following the 2017 earthquakes	\$ 6,740,636	100%	Infrastructure in Health for the nearby communities	With an area of 6,800 square meters and a planned capacity of more than 60 beds to benefit a population of 291,721 residents.
Moquegua Regional ICT Education Project	Upgrade and incorporate the use of ICT into the teaching-learning process for EBR students in the II.EE of the UGEL Ilo, Mariscal Nieto and Sanchez Cerro. Components: Implementation of technological resources Technical assistance and training Education management and awareness	\$ 2,365,973	88%	Strengthen education, skill development and health promotion	The schools have technological tools to improve learning. People reached: 30,654 students and 2,906 teachers Business: Projected linked to the Toquepala Expansion Project
Creation of irrigation and water infrastructure in Cularjahuira for the Camilaca Irrigation Board, Camilaca - Candarave - Tacna district	Regulate the water with a dam in Cularjahuira, which will store up to 2,500 m <sup>3</sup>	\$ 1,483,964	79%	Water infrastructure, health, education and services	Improve the quality of life of the local farmers, extending the harvest season to year-round. People reached: 885 families / 1,447 people Business: Projected linked to the Toquepala Expansion Project
Cananea / Bacoachi Highway	Rehabilitation of the Cananea - Bacoachi - La Valdeza highway	\$ 1,200,0000	100%	Infrastructure	Rehabilitation of the Cananea Bacoachi La Valdeza Highway, extending the road 97 kilometers to benefit the residents of nine communities in the Sonora River region



Construction on the hospital to serve the local residents in Oaxaca reported 85% completion at 2019 close, and is expected to be completed in early 2020.

With an area of **6,800 square meters** and a planned capacity of **more than 60 beds** to benefit a population of **291,721 residents**.

## Transportation Division

103-1

### Operations with local community engagement, impact assessments and development programs

413-1

GMéxico Transportes (GMXT) in Mexico holds the concession on freight transport rail lines. Only the Q line, the Chihuahua – Los Mochis (Chepe) route, offers passenger service. On being a concessionaire or permit holder, the company uses the right of way from the original route marked for railroad system, which means the environmental and community impacts in the communities through which the train passes are not attributable to the company. As a result, the company does not have the authority to move the lines. It is important to note that the railroad and its development was a factor that promoted urban growth and in many cases, the invasion of the right of way, which is the space marked by law, must be respected for the maintenance and safe operation of the railroad.

The railroad in Mexico today intersects with other communication routes, such as highways and road, and the growth of population centers which affect the movement and fluidity of the railroad network. This has had consequences on railroad safety and the wellbeing of the community. Because of this, GMXT has developed mechanisms of collaboration with the federal government through the regulatory entities, such as the Agencia Reguladora del Transporte Ferroviario and the Department of Transport and Communications, and also with the states and municipalities to mitigate and reduce the risks associated with the urban-railroad co-existence, particularly in the areas where there are level crossings or where the urban growth forces us to carry out major works to address the mobility and development needs of cities and towns.

The authorization of the Department of Transport and Communications is required for expansion works, like sidings, yards, vehicle overpasses or underpasses to increase the capacity of the system and to make the network more efficient and safe. In this regard, when GMXT undertakes a new works project in Mexico, not only are we required to comply with the environmental and other regulations, but the project must also be approved by the federal transport and communications authorities.

The company always works closely with the communities where we operate, perform maneuvers or through which the train passes. The GMXT Department of Government Relations and Communications has a team that follows up on the needs of the state and municipal governments and the federal authorities (Department of Transport and Communications, SEMARNAT, among others) to be able to develop the infrastructure the railroad requires, impacting the communities and the environment the least possible.

It is vital to the Grupo México Transportation Division to maintain a relationship of respect and linkage with the people that live in the communities through which our railroads pass. With this in mind, we invested economic, technical and human resources in the design and execution of actions that generate a respectful co-existence with the community in benefit of the population. In 2019, Grupo México Transportes was recognized for the sixth year as a Socially Responsible Company. This distinction is given to companies that participate in the annual review process of the Centro Mexicano para la Filantropía A.C. (CEMEFI). To receive the recognition, our subsidiaries are required to meet different standards of social responsibility, including: social responsibility management in the company, quality of life at work, corporate ethics, linkage with the community and environmental conservation and care.

#### Community linkage action lines

##### Solidarity

**Dr. Vagon**, the Health Train. Together with the Grupo México Foundation, we delivered free health services to remote communities in Mexico.

We provided **support** through donations and transportation services in areas affected by natural disasters.

We **built** recreational and community development spaces in the communities through which the train passes.

##### Support for Indigenous Communities

**Community transportation.** We provide passenger services to communities in Chihuahua and Sinaloa at a discount rate to contribute to the economic and social development of the region.

**Free transportation of goods.** We transport donated foodstuffs and materials to the Sierra Tarahumara free of charge.

##### The Railroad and the Community

**Roadworks.** We work closely with the authorities to improve safety around the railroad with investments in infrastructure.

**Campaigns and workshops.** We promote a road culture of respect and prevention to make the level crossings safer throughout our network.

##### Strengthening Tourism

**The Chepe Express and the tourist train** services in Jalisco and Puebla foster the growth and development of tourism-related economic activities, supporting economic development in the communities where we work.

During 2019, we strengthened the channel of communication between the local communities and the company through the Tourism Office, as well as the ongoing efforts of the Department of Government Relations and Communications.

We also began to work with other allies in the Association of American Railroads and we continued to work closely with the Mexican Association of Railroads to strengthen the *Cuidado con el Train* (Watch Out for the Train) program and develop new railroad safety campaigns in the communities where we work.

**Solidarity**

Dr. Vagon, the Health Train, celebrated five years in operation this year. By the end of 2019, the project has delivered free health services to more than 350,000 people in 217 communities in 22 Mexican states. In total, we have delivered more than 560,000 free prescription medications to the people most in need.

**GMXT community actions:** We built school classrooms and jogging tracks in 2019, and rehabilitated level crossings and delivered food baskets in six Mexican states. This support for communities across Mexico represented an investment of more than US\$380,000.

**Support for remote communities and indigenous peoples**

**Community transportation.** In 2019, we continued to issue discount cards to Sierra Tarahumara communities and municipalities in Sinaloa. Cardholders pay only 20% of the ticket price for the train in economy class, traveling on the Chepe - Regional passenger service. This program is operated in collaboration with the State Commission on Indigenous Peoples and municipal authorities in Chihuahua and Sinaloa along the Chihuahua Pacifico railroad line.

GMXT is conscious of the indigenous lands along the Q line. As part of this, on promoting tourism in the region with the Chepe Express, the company respects and showcases the local culture. The company respects the traditions of these groups and collaborates with them through the Chihuahua and Sinaloa state governments. No indigenous lands have been affected or involved in any new railroad infrastructure works projects.

Discount card program 2019		
New Discount Cards Issued	Current Discount Cards	Passengers transported
8,574	43,832	61,009

**Free transportation of goods.** As part of our social commitment to the communities of the Sierra Tarahumara, we offer free transportation of goods, primarily basic foodstuffs and supplies donated by government and private organizations and nonprofits. We moved 388 tons of foodstuffs and construction materials in 2019 to benefit the Tarahumara communities of Creel, Temoris, Cuauhtemoc and Bahuichivo, among others. Since the program began, we have transported more than 10,000 tons of donated goods to communities in the north of Mexico.

**61,009 passengers** used our Discount **Card program** in 2019.

## Operations with significant actual and potential negative impacts on local communities

413-2

The intersection of railroad lines with other communication routes is one of the most significant impacts of the railroad operation in the communities through which the train passes. Grupo México Transportes has presence in 24 Mexican states and in Texas and Florida in the United States. The Grupo México Transportation Division crosses many communities and the railroad right of way interacts with all types of urban centers. Therefore, to improve road safety and to foster a positive urban-railroad co-existence, during 2019 we continued with our project to install barriers at the most dangerous level crossings, signaling priority points to prevent accidents involving the train. These actions have reduced accidents at level crossings by more than 50%. It is important to note that the authorities, state or the interested party that seeks the improvement is obliged to signal the level crossings. However, due to the urgency of ensuring the safety of the railroad and the community, GMXT has decided to make early contributions to the National Safety Fund for Railroad Crossings and install signals at these important crossings. In 2019 alone, GMXT invested US\$5.29 million in signals for 25 level crossings in the states of Hidalgo, Guanajuato, Jalisco, Chihuahua, Aguascalientes, Coahuila, Durango, Veracruz and Sinaloa.

### Dr. Vagon, The Health Train

For GMXT, connecting with the communities through which the train passes is fundamental. Dr. Vagon celebrated five years of hard and continued work in 2019, delivering medical services to those most in need in the most remote communities in Mexico. Although further details about the Dr. Vagon initiative are provided in the section on Grupo México Foundation on page 445, it is important to note that thanks to these efforts, Grupo México provided medical attention to more than 58,000 people in 22 communities.



Dr. Vagon, The Health Train.

Dr. Vagon, the Health Train, has provided more than **1.4 million free comprehensive medical services to over 360,000 people in 226 communities in 22** Mexican states.



# INDIGENOUS COMMUNITIES



We respect the human rights of indigenous communities in adherence of the United Nations Declaration on the Rights of Indigenous Peoples and Convention 169 of the International Labor Organization.

## INDIGENOUS COMMUNITIES

103-1

At Grupo México, we recognize the efforts of the governments in the countries where we operate to guarantee respect for the human rights of indigenous peoples. Our company is aligned and committed to complying with national and local regulatory frameworks in this area. One of our fundamental principles is the responsibility to respect the human rights of all people in the conducting of our activities, which we hold independent of the obligations set by the state. As stated in our General Human Rights Policy, we honor the rights of indigenous peoples and affirm the importance of respecting and encouraging cultural diversity to build harmonious long-term relationships of co-responsibility with the communities where we work.

We recognize the multicultural and multilingual nature of the countries where we operate, originating in their indigenous peoples, and we also acknowledge the special connection that many indigenous peoples have with the earth, water and other elements of nature. We are committed to respecting the human rights of indigenous peoples in adherence of the United Nations Declaration on the Rights of Indigenous Peoples and ILO Convention 169.

Grupo México seeks to open and maintain channels of communication, encouraging dialog and the building of community relations in an environment of equity, mutual enrichment, acting in good faith and providing access to relevant information. Additionally, Grupo México is committed to implementing culturally appropriate measures in our activities that involve indigenous peoples, refraining from imposing unilateral criteria that would impact community, valuing diversity as social wealth.



## Mining and Infrastructure Division

### Organizational management

103-2

#### Mexico

In Mexico, the management processes of the Mining and Infrastructure Divisions uphold respect for the rights of indigenous communities and peoples as established in Article 2 of the Mexican Constitution, Convention 169 of the International Labor Organization, and the guidelines set by various Mexican authorities, including the Department of Mining, the Department of Energy, the Department of Natural Resources and the Environment, the National Institute of Anthropology and History, and the National Institute of Indigenous Peoples, as well as relevant case law.

Our relationships with indigenous peoples are included in the **Community Linkage Framework** (explained in detail in the chapter on Local Communities, page 310 to 318), which is composed of four stages:

#### a) Building relationships

The process for identifying indigenous communities and peoples in our areas of influence is a main component in our **Shared Value Diagnostics**. To identify the **areas of impact specific to indigenous peoples and communities**, we analyze the territory they recognize and their interaction with potential impacts from our operations, resulting in a geographic area known as an area of influence, which receives special attention that includes mitigation and expansion measures. This process includes an **ethnographic study** that, through **interaction in the field, semi-structured interviews, participative workshops and focus groups**, helps us to understand the extent of the spectrum of potential impacts from Grupo México operations.

We use Mexican and international methodologies to identify the areas of influence, the characteristics of the indigenous communities and peoples, and also the environment of the surroundings:

#### i) Identify areas of influence and develop a baseline

Geographic location of the operations and determination of the core area of influence, direct and indirect; identify roadways, bodies of water, protected natural areas, sacred sites, schools, health clinics, and also gather demographic, social, political and cultural information that is relevant to the area.

#### ii) Immersion in the field

Thanks to our presence in the field from the early stages of our operations, we are able to achieve deep community immersion through one-on-one interactions with the local residents, semi-structured interviews, participative workshops and focus groups, to identify the indigenous communities, determine whether they have territory, their own systems of justice, traditions and customs, among others.

#### iii) Identify potential impacts and mitigation measures

A matrix is built of potential impacts specific to the indigenous communities and peoples identified, detailed by project phase, assessing the magnitude, probability of occurrence, duration and social significance. Lastly, actions are prepared that will focus on mitigating the potential negative impacts or maximizing the positives, to integrate these actions into a Social Management Plan.

## b) Management

The **Social Management Plan** is developed based on the statistical, geographic, socioeconomic and qualitative information gathered for the local and the indigenous communities, as well as their relationship to the operation. This plan is divided into two parts:

i) Implementation of mitigation measures in response to potential impacts specific to the indigenous communities and peoples.

ii) Determination of measures to maximize the positive impacts through a **budget to support shared value programs** for the indigenous communities and peoples. The Social Management Plan **prioritizes** its investment based on initiatives that come out of the community, programs and projects that focus on addressing the principal needs, requirements and expectations for development in each location. The actions outlined in the Social Management Plan are applied both for indigenous populations and also for communities in general. The difference is in the approach to address the particular sociocultural aspects of the indigenous communities.

## c) Co-responsibility

To promote different mechanisms for building relationships with the local residents, we encourage the **creation of different volunteer groups**, the structures of which promote **active and coordinated engagement among residents, organizations, different sectors and the company**. Indigenous populations actively participate and are involved in the different initiatives and programs. Some examples are the social and productive entrepreneurial projects, which are proposed, designed and led by members of the community and supported with seed capital from the company: improvement actions for public spaces; training for youth leaders who participate in actions in benefit of their communities, and participation as volunteer workshop facilitators, fostering learning among the children and youth of the community with sports, art and culture, education and health activities.

## d) Development

Committed to transparency and accountability, we keep records of our progress and achievements in social performance, including the opinions of the participants and volunteers for the ongoing improvement of our management plans. For more information about these mechanisms and how they are applied differently to indigenous communities, see the section on Evaluation Mechanisms.

### United States

There are currently 573 indigenous groups recognized by the federal government in the United States. The members of these nations are US citizens and have the same legal rights and privileges as all other citizens, but they also have a system of self-government with their own laws and decision-making on issues that would directly affect their people. Each indigenous group has its own constitution and most have a written constitution. Many of these are based on constitutional models drafted by the US Government Department of the Interior from the Indian Reorganization Act of 1934, an initiative to empower the governments of the indigenous groups or nations.

Arizona has 21 recognized indigenous groups and there has been mining here since the end of the 19th century, becoming an essential activity for the development of the state. Both the indigenous identity and mining are fundamental to the culture and economy of Arizona. In this regard, mining and the local indigenous peoples have maintained relationships of respect and in adherence of both federal law and the specific laws of each nation.

In the United States, ASARCO maintains a constructive relationship with the indigenous communities within our area of influence in adherence of federal and state law, and also respecting the laws of the indigenous peoples. ASARCO is committed to respecting the rights of indigenous peoples.

## Peru

In Peru, we promote a respectful relationship with the farming communities in the areas of influence of our operations and projects. In this regard, we have made significant contributions to improving the standard of living of these communities, in partnership with local institutions. We reaffirm our commitment to respecting the cultural diversity of Peruvian society and we are committed to continue building fruitful, friendly and long-lasting relationships with our communities.

Southern Peru is preparing to conduct sociocultural diagnostics in our neighbor communities in 2020 to adapt our community development model to the good practices of building relationships with indigenous peoples, as established in Peruvian law and the standards of Grupo México. These diagnostics will strengthen our community development mechanisms with ongoing intercultural dialog between the company and the community. Therefore in this chapter we will focus on our linkage work with indigenous communities in Mexico and the United States in 2019.

## Policies

The institutional frameworks that guide the management and development of our relationships with the community are the **Corporate Human Rights Policy** and the **Grupo México Code of Ethics**, public documents that are available for consultation on the company's website, and also the General Sustainable Development Policy, published on the internal portal for consultation by Grupo México personnel. These policies are reviewed and approved by the Audit and Internal Control departments of Grupo México.

Additionally, a **Policy on Respect for the Rights of Indigenous Communities and Peoples** is expected to be approved in the second half of 2020, the mechanism for which will be the **Indigenous Communities and Peoples Action Protocol**.

## Objectives and goals

The corporate goal for 2022 in this area is to **institutionalize the process to identify and address the indigenous communities near the operations of the Mining Division**. In this regard we have undertaken the following actions in adherence of the guidelines set by the authorities.

- 1) **Mapping of the indigenous populations** near the operations of the Mining Division and the Infrastructure Division in Mexico
- 2) Drafting of a **Policy of Respect for the Rights for Indigenous Communities and Peoples**
- 3) Designing an **Indigenous Communities and Peoples Action Protocol**

The 2019 work to achieve the 2022 goals is summarized following:

### 1) Mapping of indigenous populations

Thanks to the application of the Community Development model, Grupo México has a shared value diagnostic for each of our operations, which helps to identify indigenous populations. These shared value diagnostics were used as a first step in the mapping exercise carried out in 2019 in Mexico. Then, we prepared a study focusing on the demographic and geographic factors (crossing variables like the presence of indigenous communities, land ownership and location of recognized sites) based on the location of each site and an area of influence extended by 5 km. The existing communities (more than one inhabitant) were mapped and those with populations that speak an indigenous language, determining the need to identify further characteristics.

This study found that two projects are near an indigenous language speaking population, therefore we conducted fieldwork and in-depth interviews to identify on site their sociocultural components and learn about their perception of the social landscape since the start of the Grupo México projects. In parallel, we carried out an initial exercise to identify potential impacts.

## 2) Policy on Respect for the Rights of Indigenous Communities and Peoples

Maintaining strict adherence to the regulations of the national authorities and the international legal framework, we have developed a policy that is currently under review by the legal department and is expected to be approved and released in the second half of 2020. This policy will complement the Human Rights Policy and the Code of Ethics and will serve as a guide for Grupo México actions in our relationships with indigenous populations, in all the countries where we operate.

## 3) Indigenous Communities and Peoples Action Protocol

An action protocol is being designed to facilitate the application of the Policy on Respect for the Rights of Indigenous Communities and Peoples, which is expected to be ready before the end of 2020. The protocol is specifically for projects whose impacts reach indigenous communities or peoples, which are identified according to the directives of the expert authorities, and will include a mechanism for community engagement to report on the project and perfect the mitigation measures differentiated for indigenous communities and peoples.

The mechanism seeks to strengthen the current Community Development model, build agreements and include the vision of the community in terms of potential impacts, mitigation measures and maximization. The protocol will consider formats for the documentation for each action, from the assessment of the communities and impacts to the implementation of participative community processes, considering language, characteristics of social organization, cultural heritage and world view.

### Roles and responsibilities

Given the nature of the linkages with indigenous communities, there are different areas of the company that look after different aspects, like the legal department, environmental affairs and land management. However, the community development department acts as the channel to ensure proper follow-up, institutional framework and development of a relationship built on trust. This is applicable in Mexico, Peru and the United States.

The Community Development organizational structure used to manage our relationships with indigenous peoples is the same as that for linkage with local communities (for more information, see the chapter on Local Communities, page 308).

## Resources

The company invested US\$9,027,265 in 2019 in actions with indigenous populations. This amount covered the operation of Casa Grande Lidxinu' with grant funds awarded in Juchitan, Oaxaca, the construction of the Juchitan Hospital, programs for the indigenous population at Casa Grande in Guerrero Negro, Baja California, and the institutionalization of the process to identify and address indigenous communities in Mexico.

In the United States, ASARCO has invested US\$29.0 million in the remediation of tailings dams 1, 2 and 3 located on lands leased from the Tohono Oodham and was carried out in coordination with this indigenous group to maintain the landscape as they had requested. The remediation project began in 2008 and was completed in 2014. The original budget for this project was US\$33.0 million and the left over amount continues to be used in caring for and maintenance of these dams.

For a more detailed description of the company's projects with indigenous communities and populations, see indicator MM5 on page 393.

### Hospital in Juchitan, Oaxaca

Following the 2017 earthquakes in the Isthmus of Tehuantepec region, Grupo México Foundation began construction of a Specializations Hospital in Juchitan de Zaragoza, Oaxaca, in August 2018.

There was 85% progress on the project by 2019 close and construction is expected to be completed in early 2020.

This hospital will serve 255,315 residents in the municipality and other local communities including Santo Domingo de Tehuantepec, Matias Romero Avendaño and Salina Cruz. Thanks to a fundraising campaign run through Cinemex and the foundation, we raised \$10,085,567 pesos in donations. To make the project a reality and deliver health services to the entire population of the Tehuantepec Isthmus, Grupo México Foundation contributed an additional \$167,914,433 pesos.

## Formal grievance mechanisms

Our Community Care Service (CCS) plays a key role in the Community Development model and provides an ongoing communication mechanism to assist both local communities and indigenous populations (See the chapter on Human Rights for a description of this service). The CCS is publicized via different media, such as social networks and print media, through the Community Development programs, presentations to volunteer groups, megaphones and publicity infrastructure. Members of the community are invited to use the CCS to share their concerns or complaints with the company through a toll-free number, digital media (email or WhatsApp), but also using more traditional methods, like physical boxes installed at the Casa Grande and Casa Nuestra community centers, and also directly with the team in the field and operating areas that have contact with the community and with indigenous communities.

In Mexico, our community center provides service in Spanish and Zapotec for the community of Juchitan, Oaxaca. At this Casa Grande, called Lidxinu', which means "Place for Everyone", we have bilingual staff to attend to the population that does not speak Spanish, or who feel more comfortable communicating in Zapotec. This space keeps us close to the community, favoring ongoing dialog. We are currently in the process of implementing both a toll-free line and a WhatsApp service with bilingual service.

In the United States, at the Mission mine, ASARCO has a technical committee with members from ASARCO and from the Tohono O'odham nation, which offers comments and assesses future mine and remediation projects on their property, in addition to addressing issues of mutual interest (like handling rainwater and relocating cattle that wander towards to the mine). Any concern or complaint from members of this nation is channeled to the technical committee, known as MARP (Mining and Reclamation Plan). The Tohono O'odham are invited to contact the environmental affairs manager at the mine by phone or by email if they wish to present any concern during the time between meetings of the technical committee.

## Evaluation mechanisms

### 103-3

Our performance in our relationships and social programs with indigenous communities in 2019 was evaluated the same way as with other communities: through ongoing dialog and Shared Value Diagnostics and a performance review of our social programs (see the chapter on Local Communities for more details about these processes).

Once we have the Indigenous Communities and Peoples Action Protocol, we will be able to assess our relationships and specific social programs with indigenous communities using a different mechanism. The protocol will consider specific, measurable, achievable and realistic mitigation measures, with timelines, for impacts from our operations on indigenous communities. The protocol will include a mechanism for biannual review to evaluate the application of the protocol and make any adjustments, and also to update the social baseline in terms of the presence of indigenous communities.

## Incidents of violations involving rights of indigenous peoples

### 411-1

There were no reports of violations of the rights of indigenous peoples in Mexico, Peru or the United States through the Community Care Service, third parties or other media.

## Total number of operations on or adjacent to indigenous lands and the number and percentage of operations that have formal agreements with indigenous communities.

### MM5

#### Mexico

We conducted a study to identify the indigenous peoples in Mexico, to then determine the number of Grupo México operations near or adjacent to indigenous populations. The study followed the guidelines set by the authorities for the identification and description of indigenous communities, as explained in the section on Corporate Goals.

This analysis identified two projects near indigenous communities:

- 1) The Mining Division Project in the exploration stage in El Arco, Baja California is near a Cochimi indigenous community in the town of Guerrero Negro. The descendants of the Cochimi people who live in Guerrero Negro form a social, economic and cultural unit according to the criteria of Article 2 of the Mexican constitution. Their territory also covers the town of Santa Gertrudis and the surrounding area, therefore this is considered a dual location indigenous community. Although this community does not speak the language, they have the component of Cochimi identity and collective self-identification. It is important to consider that this community reflects a historic process that has led them to the brink of disappearance. This characteristic is explained by a weakening of each of the components studied, and also the process of cultural revitalization and assertion, which has redefined the community identity with new elements that generate collective cohesion.

2) The El Retiro Wind Farm project of the Infrastructure Division, in the municipality of Juchitan, is located in the community of La Ventosa. The inhabitants of the municipality of Juchitan, and those of La Ventosa specifically, constitute an indigenous community. They form a social, economic and cultural unit as part of the Zapotec indigenous people of the Isthmus, according to the criteria established in Article 2 of the Constitution. There is a sense of collective self-identification with important roots in terms of identity, which is strengthened by cultural practices that include the collective use of the language, celebrations and rituals. There is a symbolic connection with the land in terms of possession and protection, although weakened in terms of use and world view associated with natural elements, combined with a strong sense of fundamental identity for its existence as a binizá community (binni, people; zá, cloud: people from the clouds).

The following actions were taken in both locations:

- a) Sociodemographic analysis of the locations with indigenous populations situated within the area of influence of the project.
- b) Ethnographic research on the sociocultural components that characterize the indigenous peoples in question.
  - Ethnographic study in the field in the communities with indigenous populations to identify on site their sociocultural components and learn about the changes to their social environment.
- c) Legal analysis of the implications of the project in terms of the human rights of the indigenous communities involved.

A general summary is offered following, of the agreements between the company and the indigenous communities:

### 1. Juchitan, Oaxaca

The Grupo México social responsibility model puts the individual at the core, encouraging development to grow from the community itself, recognizing their needs and aspirations, to which the company lends its efforts to work together to improve the standard of living and wellbeing of the local residents. We prioritize dialog, alliances and co-responsibility as the way to achieve results, fostering the human and social capital of the population.

When we arrived in La Ventosa in 2014, we prepared a shared value participative diagnostic, methodology that draws on community immersion, to identify the needs perceived by the community and opened dialog with our different stakeholders. Thanks to this exercise, which is ongoing, we have reached agreements with both the owners of the lands we lease for our operation and the community of La Ventosa.

We interact with the property owners through a Property Owners Committee. We maintain bilateral communications with this Committee so that there is an open channel for dialog as may be needed make requests or express concerns. We also ensure we keep the Committee informed of actions involving the work at the site and the programs undertaken for the community, in which the property owners both participate and receive the benefits.

Communication, transparency and close relationships have helped us to reach agreements with the owners of the land where the wind turbines are located, involving the electrification or other investments in their ranches, which has benefited their farm and cattle productions. We also have agreements on social investments in benefit of the community, with the commitment to refurbish the infrastructure in public spaces in La Ventosa and to award grant funds to provide seed capital for social and productive initiatives that come from the community itself.

Casa Grande Lidxinu' holds a call for proposals each year under the program *Tú, tu proyecto, tu futuro* (You, your project, your future) receiving various project proposals from entrepreneurs in La Ventosa. A Community Committee, made up of two property owners, the municipal agent and three recognized leaders of the community, (who voluntarily receive training on project evaluation, active listening and participative decision-making), analyzes each proposal and selects the initiatives to support, according to criteria of sustainability, impact and community benefit, co-responsibility and addressing the priority needs of the community.



Guidxhi Riale Bi (“community where the wind is born”) project leader. Embroidery of local textiles.

The Grupo México social **responsibility model focuses on the individual, driving development from within the community**, recognizing their needs and aspirations, to which the company lends its efforts, working together to improve the quality of life and wellbeing of the local residents.

### Project proposals. Sustainable La Ventosa.

#### *Tú, tu proyecto, tu futuro*

**Project:** Guidxhi Riale Bi (Zapotec meaning “community where the wind is born”)

**Project Leader:** Petronila Rojas

**Start of activities:** 2019

**Goal:** Traditional local weaving project that seeks to support the economic and human development of a group of women from the community of La Ventosa, Oaxaca, in the Isthmus of Tehuantepec region.

**Participants:** The project will start with 15 women from the community, including single mothers and students, who will learn and develop traditional local weaving skills, preserving the culture of the region.

**Results:** Make embroidered items of clothing: blouses, smocks, traditional clothing (huipil blouses and undershirts); make bags, purses, jewelry and innovations in the traditional embroidering of daily use items.

#### **Achievements**

- Distribution of products within the Isthmus region.
- Shipping to different cities around Mexico (Oaxaca, Mexico City, Villahermosa and Chiapas), as well as exports to New York.
- The Bordados Guidxhi Riale Bi shop was opened in the community in August 2019, where the participants display and sell their products.

## 2. Guerrero Negro, Baja California

Our Community Development model has been present at the El Arco Exploration Project in Baja California with Casa Grande Guerrero Negro since 2013. The shared value participative diagnostic identified that there are descendants of the Cochimi indigenous people in our areas of influence here. Since 2014, Casa Grande Guerrero Negro has held open dialog and linkage with this community, ensuring they receive the benefits and participate in various social programs in our community development model. We have a direct and ongoing relationship, with seven volunteers, one member of the Community Committee and one employee who are Cochimi, and we actively work with them on activities for the community of Guerrero Negro.

In 2014, the organization Milapá, which works to rescue the Cochimi culture was awarded grant funds by the company to nurture the indigenous language and culture. The organization also participates every year in the Auka Summer Courses at Casa Grande, offering indigenous language workshops, and they also led an opening ceremony at the start of the course.

### United States

#### Mission Mine in Sahuarita, Arizona

The Mission mine is situated both on private property and on Tohono O'odham (TO) reserve lands, and we hold a lease signed with them, which gives preference in work opportunities and a percentage of the royalties on the mine production from their lands. We continue to pay a small royalty to keep the lease active but we are not working these lands. As noted, we have a technical committee with members from ASARCO and from the TO Nation, the purpose of which is to address issues of mutual interest.

We carried out a remediation project from 2008 to 2014 on tailings dams 1, 2 and 3 situated on lands leased from the TO. The remediation was executed in coordination with the TO nation, San Xavier District, for which the company received requests with specific goals and objectives. The priority for the TO was that the remediation permit the recovery of an environment that would resemble the ecosystem of the shared desert between Arizona in the United States and Sonora in Mexico.

The ASARCO remediation project required specialized engineering to maintain the landscape requested by the TO, which is part of their conception of sacred spaces.

Added to this, Volunteer Days were held in 2018 and 2019 with the participation of employees and their families to refurbish community spaces. These actions included painting, cleaning, gardening and maintenance at the San Xavier Mission School, which belongs to the Tohono O'odham Nation.

## Transportation Division

### Incidents of violations involving rights of indigenous peoples

#### 411-1

GMXT did not experience any cases of violations involving rights of indigenous peoples in Mexico in 2019. See the chapter on Local Communities for a description of the community linkage model and projects with indigenous communities in the Sierra Tarahumara.





**OUR PEOPLE**



Our trainings and programs foster a corporate culture of total quality, based on respect and professional development.

## OUR PEOPLE

103-1

At Grupo México, our people are the backbone of our organization, which is why we strive to provide and maintain an environment of wellbeing for all our collaborators. We understand the importance of encouraging the participation and voice of all the groups at our work centers and in the communities where we operate, not only as a legal obligation, but as part of the sustainability and development of the local economies. We participate in the creation of education programs for different levels in our communities; we also select students from these communities for internships at the company's sites.

We create environments that promote diversity, inclusiveness and gender equality, offering equal opportunity without distinction of race, creed, age, gender, nationality or sexual preference, and also promote respect and non-discrimination of individuals and communities, including minority groups, in adherence of the values laid out in our Code of Ethics.

One of the core principles of our performance is recruiting and maintaining our team motivated through attractive challenges and fair compensation, in terms of our market, offering ongoing training to innovate and improve our activities and processes. Thus, we promote retaining talent with opportunities for growth, based on performance. We are continually improving the workplace climate and we monitor our staff turnover rate and the commitment of our employees to achieving our goals.

At Grupo México, we promote equal opportunities for our personnel and foster an atmosphere where fair work practices permeate throughout the organization, ensuring diversity, equal opportunities and fair pay. At Grupo México, forced or child labor of any kind is prohibited, and we respect freedom of union association and collective bargaining. The collective bargaining agreements for our operations are filed with the government agencies corresponding in the countries where we operate. Also, the company has operating policies in place that comply with all labor-related human resources processes.

## Mining Division

### Organizational management

103-2

Our policies and procedures, aligned with the laws of the countries where we operate, set the standards of behavior for our collaborators. We develop programs and trainings to foster a corporate culture of total quality, based on respect and professional development. We establish performance metrics and indicators to identify the potential of each collaborator and we have mechanisms in place to review the efficacy of our strategies and to ascertain the satisfaction of our collaborators.



The organizational management of the topic **“Our People”** is distributed in the pillars: (i) **Diversity, inclusiveness and non-discrimination;** (ii) **Human capital development;** (iii) **Labor practices,** and (iv) **Recruit and Retain Talent.**

### Policies

Grupo México senior management has approved and implemented policies that lay out the basis for the management and development of our employee relations. These policies are available to employees through the company’s internal portal, and include the following:

- **Code of Ethics:** Outlines the principles and fundamental conducts for harmonious relationships between collaborators and Grupo México’s stakeholders.
- **General Human Rights Policy:** Sets the commitments and principles related to respect for the human rights of our collaborators and our communities, which both the company and our contractors are required to adopt.
- **Policy on Respect and the Wellbeing of Our Collaborators:** Establishes the commitments and principles related to respect, to which all employees at all levels of the organization are required to adhere.
- **General Policy on Our People:** Communicates the commitments and how the company manages our relationships with employees.

These policies are published on the networks of the different Grupo México divisions and in the countries where we operate. They are available at any time for anyone with access to the network from their work device. For people that do not have access to the company networks, we post these documents on other non-electronic media, like bulletin boards, posters, documents and pamphlets to reach all our collaborators. The different company departments apply these policies while their content and implementation are regulated by internal control.

### Roles and responsibilities

- **Corporate Human Rights Department:** Manages the labor aspects, personnel management, human capital development, and recruitment and retaining talent. The Corporate Vice-President of Human Resources directs, supervises and communicates to senior management the material topic of our people and the related aspects. They also sit on the Ethics and Discipline Committee, which reviews the reports received through the grievance mechanism via the outside company contracted to manage this mechanism.
- **Internal Control:** Reviews the information and implementation of the company’s policies and procedures, identifies and handles related risks.

- **Mine operations human resources departments:** Take action on the directives from the Corporate Department and are responsible for the proper application of the company's policies.
- All employees, contractors and suppliers that work with and in the name of Grupo México are responsible for adhering to our company policies and procedures.

## Evaluation mechanisms

### 103-3

Our evaluation mechanisms for the four components of the chapter on Our People (Diversity, inclusiveness and non-discrimination, Human capital development, Labor practices, and Recruit and retain talent) are based on the design and development of performance indicators for our Human Resources departments and documented policies and procedures (described in indicator 103-2). These annual and monthly indicators support our Human Resources and corporate strategic planning, and measure our results to compare these against the goals set. Additionally, Internal Control conducts reviews and there are also inhouse and independent audits, which include reviews of the information and implementation of our company policies and procedures in these areas, in compliance with local legislation and company policy.

We have mechanisms in **place to assess the efficacy of our strategies and to ascertain the satisfaction of our collaborators.**



Our employees, contractors and suppliers adhere to all company policies and procedures.

## Diversity, inclusiveness and non-discrimination

103-1 and 103-2

Diversity, inclusiveness and non-discrimination are values that we promote from our Board of Directors through all levels of the organization and our subsidiaries. These values are taken into account every day in the strategies and decisions of the company. We strive to be inclusive and foster an environment of respect that extends to our collaborators, their families, the communities near our operations and the rest of our stakeholders.

There are no restrictions (gender, age, social condition, etc.) on applying for any position within the organization. However, positions that demand physical effort require profiles that would not compromise the health and safety of people with illnesses or injuries that could be aggravated.

### Management

Our procedures are guided by various company documents, including the Code of Ethics, the Policy on Respect and the Wellbeing of our Collaborators, the General Sustainable Development Policy and the Human Rights Policy, also adhering to the corresponding legislation in each country where we operate. With these instruments, we strive to prevent:

- Discriminatory treatment on the basis of age, gender, race, religion, nationality or sexual preference
- Harassment
- Emotional health problems, within the regulations applicable in the countries where we operate

And we seek to maximize:

- Equal opportunities for all under equal conditions
- Caring for the communities where Grupo México operates
- Education and respect for all
- Company values
- Promotion of growth opportunities for the talent and dedication of our collaborators
- Creating balance between work and family life
- Fair and equitable labor practices
- Fair compensation

## Diversity of governance bodies and employees 405-1 / Ratio of basic salary and remuneration of women to men 405-2

Below the Grupo México Board of Directors, the company has different governance bodies, including the Management Committees at the corporate and Mining Division levels. There are five women who sit on these committees, one of whom is over 50 years of age and the others are between 30 and 50, representing 9% of the total. Fifty men sit on the committees, nine of whom are between 30 and 50 years of age and 41 are over 50.

AMC: Percentage of employees by category, segmented by gender and age group

Age Range	Senior Management		Deputy Directors, managers and specialized high level positions		Superintendents and supervisors		Specialists, coordinators and non-union operational personnel		Unionized		
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	
< 30	0.00%	0.00%	0.01%	0.06%	0.38%	2.21%	0.95%	1.73%	0.45%	15.98%	<b>21.77%</b>
30-50	0.03%	0.06%	0.13%	0.57%	1.24%	5.95%	1.52%	3.34%	2.04%	38.16%	<b>53.02%</b>
> 50	0.01%	0.26%	0.08%	0.60%	0.84%	3.72%	0.86%	1.89%	0.53%	16.40%	<b>25.20%</b>
<b>Total</b>	<b>0.04%</b>	<b>0.32%</b>	<b>0.22%</b>	<b>1.23%</b>	<b>2.46%</b>	<b>11.88%</b>	<b>3.33%</b>	<b>6.96%</b>	<b>3.02%</b>	<b>70.54%</b>	<b>100%</b>

Given the nature of the industry, the workforce at our mine operations is made up primarily of men. With a focus on inclusiveness and equality, we are particularly interested in encouraging the participation of women. We strive to bring in women through our recruitment processes and we guarantee equal conditions. We had a total 1,054 female employees in 2019, representing nearly 7% of our collaborators.

Collaborators by region and gender

	Men		Women		Total
Mexico	8,851	94.2%	544	5.8%	<b>9,395</b>
Peru	4,801	93.6%	329	6.4%	<b>5,130</b>
USA	1,960	91.5%	181	8.5%	<b>2,141</b>
<b>AMC</b>	<b>15,612</b>	<b>93.1%</b>	<b>1,054</b>	<b>6.9%</b>	<b>16,666</b>

Participation of women by employee category

	Mexico		Peru		USA		AMC	
<b>Senior management</b>								
Women	3	8.33%	0	0.00%	2	16.67%	5	8.47%
Men	33	91.67%	11	100.00%	10	83.33%	54	91.53%
<b>Total</b>	<b>36</b>	<b>100.00%</b>	<b>11</b>	<b>100.00%</b>	<b>12</b>	<b>100.00%</b>	<b>59</b>	<b>100.00%</b>
<b>Management</b>								
Women	22	13.02%	3	8.11%	6	12.24%	31	12.16%
Men	147	86.98%	34	91.89%	43	87.76%	224	87.84%
<b>Total</b>	<b>169</b>	<b>100.00%</b>	<b>37</b>	<b>100.00%</b>	<b>49</b>	<b>100.00%</b>	<b>255</b>	<b>100.00%</b>
<b>Middle management</b>								
Women	128	9.81%	56	10.49%	14	5.96%	198	9.55%
Men	1,177	90.19%	478	89.51%	221	94.04%	1,876	90.45%
<b>Total</b>	<b>1,305</b>	<b>100.00%</b>	<b>534</b>	<b>100.00%</b>	<b>235</b>	<b>100.00%</b>	<b>2,074</b>	<b>100.00%</b>
<b>Administrative</b>								
Women	349	35.91%	129	23.50%	544	31.32%	478	31.43%
Men	623	64.09%	420	76.50%	1,193	68.68%	1,043	68.57%
<b>Total</b>	<b>972</b>	<b>100.00%</b>	<b>549</b>	<b>100.00%</b>	<b>1,737</b>	<b>100.00%</b>	<b>1,521</b>	<b>100.00%</b>
<b>Unionized</b>								
Women	42	0.61%	141	3.53%	93	5.71%	276	2.20%
Men	6,871	99.39%	3,858	96.47%	1,536	94.29%	12,265	97.80%
<b>Total</b>	<b>6,913</b>	<b>100.00%</b>	<b>3,999</b>	<b>100.00%</b>	<b>1,629</b>	<b>100.00%</b>	<b>12,541</b>	<b>100.00%</b>

Employees by age group

	Mexico		Peru		USA		AMC	
18 to 25	958	10.20%	95	1.85%	169	16.67%	1,222	7.34%
26 to 40	4,620	49.18%	2,119	41.31%	722	83.33%	7,461	44.79%
41 to 50	1,967	20.94%	1,122	21.87%	514	16.67%	3,603	21.65%
> 51	1,850	19.69%	1,794	34.97%	736	83.33%	4,380	26.32%
<b>Total</b>	<b>9,395</b>	<b>100.00%</b>	<b>5,130</b>	<b>100.00%</b>	<b>2,141</b>	<b>100.00%</b>	<b>16,666</b>	<b>100.00%</b>

Base salary of women vs. men

Employee category	Senior Management	Management	Administrative	Unionized
	Directors	Deputy directors, managers and specialized high level positions	Superintendents, supervisors, specialists, coordinators and non-union operational personnel	Unionized personnel
<b>Mining Division</b>	0.94	1.17	0.90	0.94

The base salary ratio women to men in the Mining Division is 1.074.

The average base salary of women to men for executive levels in the Mining Division is 0.94; while for the management level, this ratio is 1.17.

In the case of non-union administrative personnel, the average ratio is 0.90.

Development of Human Capital

103-1 and 103-2

Grupo México is committed to caring for and fostering the personal and professional growth of our collaborators. Through our training and development plans, we focus on technical training and perfecting competencies, and also the development of skills and aptitudes, to promote the individual and professional growth of our personnel aligned with the strategic goals of the company. Our collaborators have the opportunity to select their own areas of interest and development.

Management

We offer our collaborators training programs and career plans, and also have processes and campaigns to measure, assess and offer feedback on employee performance. We endeavor to avoid workplace risks and maximize engagement, proactiveness, knowledge, aptitudes and innovation, as well as prepare for future needs both in planning for personnel nearing retirement and planning to cover staffing needs for future projects and the profitability of the company.

The activities of our three divisions require highly specialized technical skills, therefore developing the talent of our collaborators is a priority. Grupo México considers training part of our commitment to the communities where we operate, therefore we have designed education programs in collaboration with different organizations and institutions. Training in the Grupo México Mining Division focuses on three main areas:

1. Education

We focus on the professionalization of the productive plant. This means we are continually providing programs for our collaborators that focus on their formal education, such as academic studies (elementary, middle school, high school, bachelor's degree) and post-graduate programs (master's and doctorate degrees). In this regard, the company has incentive policies and financial support, as well as specific compensations established in our collective bargaining agreements to support the education of our collaborators and their families.

**2. Training**

We focus on developing technical skills in mine safety (operation and maintenance), with an emphasis on the “human side of safety”, going beyond technical safety knowledge, which is continually reinforced. We offer training on management skills and institutional competencies and we continually reinforce training on human rights and our Code of Ethics for all personnel. In particular, non-union personnel must receive Code of Ethics certification annually and for unionized personnel, every two years. Our employees in Peru also receive training, which is grouped by topic.

The topics on which the greatest number of training hours have been given are detailed following: Safety DS-024, Mine Maintenance, Health and Safety, Equipment Operation, Human Resources, Orientation, Information Technology / Software, Mining, Environmental Management, MS Office, SIG Certificates, Project Management, Health, Water Resources, Code of Ethics and Conduct, Geology, Process Control, Metallurgy, and Legal / Labor. MSHA and OSHAS are the two principal training standards for ASARCO (United States) as the safety of our employees is our top priority. The training during the fourth quarter of the year focused on incorporation programs, because of the changes at ASARCO. As a result, we ensure our employees know about the company and the new roles and responsibilities for each position.

**3. Development**

Lastly, in terms of development topics, we continuously prepare our Mining Division personnel to take on new tasks and responsibilities, as needed, supporting the growth of their professional careers within the company. Individual development plans are prepared, based primarily on our in-house replacement tables.

**Average hours of training per employee per year**

**404-1**

We delivered a total 397,654 training hours in the Mining Division in 2019, with an average 24 hours of training per employee.

Total training hours		Total training hours by employee category and gender			
Year	Hours of training	Employee category	Women	Men	Total
2016	548,118	Senior Management	19	665	<b>683</b>
2017	413,158	Management	884	8,010	<b>8,894</b>
2018	411,755	Middle Management	6,438	62,299	<b>68,737</b>
2019	397,654	Non-union Administrative - Operational	13,117	48,464	<b>61,580</b>
		Unionized Operational	3,856	253,905	<b>257,761</b>
		<b>Total AMC 2019</b>	<b>24,313</b>	<b>373,341</b>	<b>397,654</b>

**Programs for upgrading employee skills and transition assistance programs**

**404-2**

The Mining Division has different skill and competency management programs, which we offer to all our collaborators according to the types of activities they perform. Our programs to improve employee aptitudes include the following:

**Training programs**

**Leadership program**

This program develops supervision skills, equivalent to a Diploma Course in Underground Mine Supervision. The content covers leadership skills, mine safety, labor relations, operational skills and equipment. It also considers the development of an all-round package of institutional competencies. This program is in the process of receiving certification from the education authorities in Mexico.



**Culture of Total Quality**

Our business culture aims for total quality, covering not only ongoing improvement processes for the productivity and efficiency of our operations and certifications, but also offering the skills that high-performance teams require and reinforcing the focus on the customer-supplier chain. In the first part of this program, we reinforce the mission, vision and values of the company, achieving greater commitment among our collaborators and fostering their sense of belonging.

**Dissemination of our Code of Ethics**

The Code of Ethics applies to our employees, suppliers, customers and related parties. It reinforces our values, business ethics and knowledge of human rights, and how these are respected and applied within the company. It also includes a chapter on Our business relations, which places emphasis on antifraud and anti-corruption practices.

**Corporate calendar**

Developed after identifying the needs for training on institutional competencies through conversations between supervisor and subordinate during the performance review.

**Executive and team coaching**

Focuses on improving the skills of our high-performance teams, assertive communication and result-oriented. Management who have participated in the training, development and education the company offers share their testimonials:

*"It helped me to be more aware and to evaluate and prioritize important projects, both professional and personal, and also workplace health and well-being. This benefited me in the sense of better time management, avoiding leaving things pending or putting them off."*

**Education programs**

One of the bachelor's level education programs of note is our Mine Engineering professional career program, the content for which was developed in collaboration between the company and the university; 27 collaborators are enrolled in this program and have grown over this time from the basic level.



## Safety training

The company focuses our efforts primarily in this area, to support the safety of our personnel while they are working. This includes operating procedures, work insurance and behavior-based safety, and the cultural focus of the human side of safety, particularly for our unground mine operations. We also run a program for fire and rescue crews.

## Individual development plans (for more than 750 people)

These plans foster growth in the professional career and prepare for future employability with the support of the company. The company's efforts begin with an assessment of technical skills and institutional competencies, as well as online evaluations that identify gaps in development for which we prepare short and medium term plans. The results of these plans inform the replacement tables.

## Different training topics

Covers topics that include mechanical and electrical maintenance, ISO and OSHA certifications, efficiency, quality and productivity, in addition to administrative, accounting and financial refresher training, as well as training in ecology.

## Financial support for studies

Financial supports for studies at the basic, intermediate, professional (bachelor's) and post-graduate levels, including master's degrees. The goal of the company is to continue to professionalize the productive plant.

Collaborators that have participated in the training, development and education the company offers share their testimonials:

*"I have completed my master's degree. I'm really happy and thankful for all the support from the company."*

## Youth Building the Future

The *Jóvenes Construyendo el Futuro* program is offered at our operations in Mexico and is a government program that provides 12-month training opportunities. The company offers this program to youth aged 18 to 29 who are not gainfully employed and who are not in school. Grupo México is participating successfully in this program.

## Training in Peru

Southern Peru sets the requirements for the operation, based on technical and behavioral aspects, considering technological changes, upgrades, special projects and others. This helps to identify the training needs for specific and general competencies, which are laid out in the Annual Training Plan, which is budgeted and carried out each year. The three main programs are Occupational Health and Safety, Technical Competencies and Behavioral Skills (Coaching, Leadership Program, ABCs of the Supervisor).

## Support programs for retired employees

The company has a robust retirement plan for our employees, which in addition to the pensions provided for by law, offers a respectable retirement for all Mining Division employees in Mexico and ASARCO, which offers 401K retirement benefits.

## Career transition

The Mining Division offers a training program for employees who leave the company, assessing their strengths, skills and interests to continue their professional careers. The company contracts expert consultants on career transition or outplacement.

## Percentage of employees receiving regular performance and career development reviews

### 404-3

All Mining Division personnel, men and women, holding positions in senior management, management, middle management and administrative participate in an annual performance review that is based on the goals defined at the start of the year. Our unionized employees are assessed monthly using a different mechanism, which usually results in performance-based bonuses.

The Grupo México Mining Division has a complete performance management and improvement process in place, which is linked to the training and development program. Each year, our non-union collaborators set their own individual performance goals, aligned with the strategic goals of the company, which are classified into the following four areas: efficiency and productivity, sustainability, talent and profitability. The individual goals are reviewed during the year. In parallel, they set development goals to achieve over the period. At the end of the year (December), there is a formal review of the individual goals and achievements, the institutional competencies the position requires, the achievement of the development goals, and the training and compliance with company regulations. The most relevant stage of this process is the dialog and feedback between the collaborator and their immediate supervisor.

Only personnel that have been with the company for at least five months participate in the annual performance review. However, all employees have their goals defined for their position, and their job description, from their first day. With this process, the company reinforces the significance of the individual contribution to the overall performance of the business, ensuring strategic alignment and execution and, lastly, guaranteeing the ongoing development of the skills required to achieve the goals.

For the executive levels, their contributions by area to the key performance indicators of the company are also taken into account to ensure the alignment and achievement of the first level of the organization.

Our operations in Mexico, Peru and Spain use the SAP "SuccessFactors" system with personnel who have been with the company for at least six months as of December 31, 2019. The rating scale is: unsatisfactory, average, good, very good and excellent.

The performance review is divided into the following points:

1. Score for four to eight goals achieved in 2019 (70.0%)
2. Score for eight competencies (27%): Institutional competencies are selected as required to perform the duties of the position, according to the level. Some examples of the competencies we evaluate are: leadership, teamwork, result-oriented, personal development, effective communication, customer service, safety, conservation of the environment, quality and ongoing improvement, managing information, analysis and problem solving, planning, project management, negotiation, time management, emotional control, budgets, cost control and relations with organizations and institutions.
3. Adherence to the internal control system (3.0%)

## Labor Practices

### 103-1 and 103-2

Our labor practices, which apply to all our collaborators, are based on the labor laws in each country where we operate. Our policies are aligned with this legal framework and are strictly applied. Our salary packages are fair and competitive, based on internal equity and outside competitiveness to attract, develop and retain highly capable and qualified people. We respect all our obligations and responsibilities as laid out in collective bargaining agreements, acting within the framework of the law and according to our values and workplace culture.

**Management**

We have general policies in place on health, hygiene and safety, the Code of Ethics, the General Risk Management Policy and the Policy on Our People. With these documents, we seek to reduce the following:

- Work-related risks
- Conflicts of interest
- Labor disputes involving collective bargaining agreements (strikes, work stoppages, etc.)
- Ensure forced and child labor by our collaborators and contractors is prohibited.

And maximize the following:

- Clarity and transparency on the rights and responsibilities of our collaborators
- Knowledge of our labor relationships
- Safe work procedures

**Information on employees and other workers**

102-8

There were 16,666 collaborators working full time in our Mining Division in 2019, 98% of whom hold indefinite contracts and the others are contract workers, according to the nature of the tasks they perform.

Total collaborators	
Year	Collaborators
2016	15,883
2017	15,672
2018	16,492
2019	16,666

Collaborators by type of contract, region and gender									
%		Total	INDEFINITE CONTRACT		CONTRACT WORKER		2019	YTY 2018	△
			Men	Women	Men	Women			
56.37%	Mexico	9,395	8,840	536	11	8	9,395	9,037	3.96%
30.78%	Peru	5,130	4,576	303	225	26	5,130	5,101	0.57%
12.85%	USA	2,141	1,960	181	0	0	2,141	2,354	-9.05%
	<b>Total</b>	<b>16,666</b>	<b>15,376</b>	<b>1,020</b>	<b>236</b>	<b>34</b>	<b>16,666</b>	<b>16,492</b>	<b>1.06</b>
	<b>%</b>		<b>92.26%</b>	<b>6.12%</b>	<b>1.42%</b>	<b>0.20%</b>			

All our collaborators work full time.

AMC Contractors						
	Total	CONTRACTORS		2019	YTY 2018	△
		Men	Women			
Mexico	6,940	6,940	0	6,940	6,727	3.17
Peru	16,435	15,381	1,054	16,435	12,298	33.64
USA	20	20	0	20	0	-
<b>Total</b>	<b>23,395</b>	<b>22,341</b>	<b>1,054</b>	<b>23,395</b>	<b>19,025</b>	<b>22.97</b>
<b>%</b>		<b>95.49%</b>	<b>4.51%</b>			

**Contractors**

The activities of the Mining Division contribute to the creation of indirect jobs. A total of 23,395 contractors collaborated with AMC subsidiaries in 2019, 22,341 of which were men and 1,054 women, an increase of 22.86% over 2018.

Of the contractors reported over the year, only 30% do ongoing work for the company, while the others have done temporary or project work. The principal activities of the contractors who do ongoing work at our sites focus on mining works, which are essential to the operation.

## Collective bargaining agreements

102-41

All companies that comprise the Grupo México Mining Division guarantee the freedom of association as a labor right. These relationships promote a positive workplace climate that increases our productivity. At 2019 close, there were 12,534 unionized employees in the Mining Division, representing 75% of our collaborators.

### Employees covered by collective bargaining agreements

	Total	Unionized		Non-Union		2019	YTY 2018	△
		# Employees	%	# Employees	%			
Mexico	9,395	6,913	73.58%	2,482	26.42%	6,913	6,650	3.95%
Peru	5,130	3,992	77.82%	1,138	22.18%	3,992	4,004	-0.30%
USA	2,141	1,629	76.09%	512	23.91%	1,629	1,766	-7.76%
<b>Total</b>	<b>16,666</b>	<b>12,534</b>	<b>75.21%</b>	<b>4,132</b>	<b>24.79%</b>	<b>12,534</b>	<b>12,420</b>	<b>0.92%</b>

## Number of strikes and lockouts exceeding one week's duration, by country

MM4

There were no strikes or lockouts at Minera México or Southern Peru in 2019, while a strike began at ASARCO on October 13, 2019. It should be noted that prior to the strike, ASARCO and the unions negotiated for more than a year in attempts to reach a collective bargaining agreement. US labor laws provide for labor freedoms and also the continuity of the business, therefore the company continues to operate with temporary workers.

At **Grupo México** we guarantee freedom of association as a labor right.

## Minimum notice periods regarding operational changes

402-1

Fostering trust between the company and collaborators, and their union representatives, is key for Grupo México, for which we maintain open dialog through the Human Resources Department. We communicate operational changes with the advance notice required by law. For example, in the United States, the Worker Adjustment and Retraining Notification Act (WARN) requires 60 days notice for mass layoffs and closures.

## Recruitment and retaining talent

103-1 and 103-2

We promote recruiting local talent to have a positive impact on the economies of our neighbor communities. We openly publicize the obligations and skills required for each position, and also how results are measured within our review systems. This helps to promote dialog with personnel, identify occupational needs and to design training, development, succession and personal career plans.

### Management

Grupo México is committed to maintaining a team that is fairly compensated, satisfied, motivated and committed to the organization, to maintain an appropriate workplace climate, which ensures a high level of permanency and a low turnover rate to achieve our goals. With these actions, we strive to reduce the following:

- Loss of talent

And maximize:

- Labor competitiveness
- Encourage engagement
- Talent development

## Employee benefits

### 401-2

We offer the following benefits over those required by law to ensure job stability for our Mining Division employees:

Salary-related
Life insurance
Major medical insurance
Family protection insurance
Savings fund
Grocery vouchers
Productivity bonus
Pension fund

Other
Housing assignment
Utilities (power, water, etc.)
Medical clinics
Elementary and middle school for the children of employees
Employee cafeterias
Sports facilities
Scholarships for employees and their children
Share purchase plan for employees
Retirement plan

## Ratios of standard entry level wage compared to local minimum wage.

### 202-1

The average base salary in the Mining Division in 2019 was equal to nine times the local minimum wage. The base salary includes the basic wage, productivity bonuses, cash benefits and profit sharing (where applicable)<sup>1</sup>.

<sup>1</sup> Considering the Base Salary (BS) and the Minimum Wage (MW), the average BS/MW is weighted to each country where we operate based on the number of Mining Division employees in each place.

## Workplace Climate

The Grupo México Mining Division conducts Employee Surveys every two years to understand the perceptions our collaborators have of the company and to design actions to increase their commitment. The survey measures factors that would affect the workplace climate (how the person perceives the environment within the organization and how this is influenced by internal and external factors) and culture (how the behaviors, experiences, habits, practices, values, procedures and policies are embodied within the organization).

All employees are invited to participate, including both unionized and non-union personnel, as Grupo México is interested in hearing all our people and creating a channel of open communication. In 2019, 9,528 collaborators (6,232 in Mexico, 3,256 in Peru and 40 in Spain) completed surveys, representing 67% participation.

The level of commitment of our collaborators is measured through 18 subfactors, grouped into two main areas:

- Belonging: Level to which the collaborator identifies with the organization and our corporate goals; reflects their feeling of belonging.
- Satisfaction: Degree of satisfaction of the collaborator with their work conditions; refers to the optimal conditions for improved work performance.

Our definition of “collaborator commitment” is the level of commitment of an employee to goals of the organization and how proud they are to be a part of the organization. The average of these factors indicates the level of commitment on a scale of 1 to 5 (Likert scale).

## New employee hires and employee turnover

401-1

New hires by region, gender and age group

New Hires								
	By age group				Total 2019	By gender		Total 2019
	18 to 25	26 to 40	41 to 50	≥ a 51		Male	Female	
Mexico	486	533	98	27	<b>1,144</b>	1,038	106	<b>1,144</b>
Peru	47	199	32	7	<b>285</b>	261	24	<b>285</b>
USA	93	139	53	39	<b>324</b>	296	28	<b>324</b>
<b>AMC 2019</b>	<b>626</b>	<b>871</b>	<b>183</b>	<b>73</b>	<b>1,753</b>	<b>1,595</b>	<b>158</b>	<b>1,753</b>
%	35.71%	49.69%	10.44%	4.16%		90.99%	9.01%	

Separations by region, gender and age group

Total Separations							
	By Gender		By Age Group				Total
	Men	Women	18 to 25	26 to 40	41 to 50	≥ to 51	
Mexico	688	63	152	356	118	125	<b>751</b>
Peru	204	18	0	61	15	146	<b>222</b>
EUA	490	59	39	156	100	254	<b>549</b>
<b>AMC 2019</b>	<b>1,382</b>	<b>140</b>	<b>191</b>	<b>573</b>	<b>233</b>	<b>525</b>	<b>1,522</b>
%	90.80%	9.20%	12.55%	37.65%	15.31%	34.49%	

Grupo México is committed to maintaining a **team that is fairly compensated, satisfied, motivated and committed to the organization**, which ensures a high level of permanency and a low turnover rate to achieve our goals.

Turnover Rate 2019: 9.13 % (# separations / total employees)

Turnover rate by year	
Year	Percentage
2016	10.31%
2017	9.61%
2018	7.5%
2019	9.13%

Turnover rate by gender and region			
Region	Women	Men	Total employees
Mexico	11.58%	7.77%	<b>7.99%</b>
Peru	5.47%	4.25%	<b>4.32%</b>
USA	32.59%	25%	<b>25.64%</b>

The turnover rate is within the average for the industry. The numbers at ASARCO are elevated because of two factors: 1) a reorganization that will make the company more efficient, and 2) the strike that began in October 2019 (for more information, see indicator MM4 on page 420).

## Infrastructure Division

103-1 and 103-2

At the Grupo México Infrastructure Division, we believe our human capital to be the driving force of the organization. We always seek out the best talent; we are committed to their integration and development in the organization, building training policies and programs that foster their professional and personal growth.

Our workplaces are inclusive, with diversity of thought and opinion, which leads to ongoing improvement and gender equality. Non-discrimination is part of our Code of Ethics and is required of all company personnel, contractors and suppliers, extending also to our communities.

We strive to always adhere to best practices in human resources management, under a guiding principle of legality and caring for the wellbeing of our collaborators. As part of the strategic pillars, we focus on the growth of our most valuable asset, our people, and on fostering effective leadership to build an environment of respect and trust. We offer ongoing professional training and growth and we develop the skills and competencies of our collaborators with competitive salary packages.

We see our communities as our strategic allies, with which we have a strong social commitment. The voices of our employees are fundamental to the growth of the organization. In this regard, we encourage participation in trade unions and collective association.

We conduct a workplace climate survey each year to measure our performance as an organization and to listen to the concerns of our administrative and operational personnel.

### Policies

We have policies in place on respect and safety for our people, which are promoted by Senior Management. We ensure all our collaborators receive these policies through different media. These policies are:

- **Code of Ethics:** Outlines the principles and fundamental conducts for harmonious engagement between collaborators and Grupo México's stakeholders.
- **Policy on Respect and the Wellbeing of Our Collaborators:** Sets the commitments and principles related to respect, which all employees at all levels of the organization are required to adopt.
- **General Human Rights Policy:** Released in 2019, this policy defines the guidelines of the organization to foster respect for human rights within the operation, contractors and communities.
- **Occupational Health and Safety Policy:** Ensures a safe environment and workplace for our people and our operations.

### Organizational Management

The organizational management of our Infrastructure Division is based on our policies and procedures, and also on relevant national and international standards and regulations. We design strategies for the growth of our people and our business based on the needs of the company and the competencies of our personnel. Caring for our collaborators through their safety, perfecting their knowledge, skills and aptitudes, and respect for their labor and human rights are all part of our management. In this regard, we set goals that are reviewed monthly with Senior Management, which helps us to define the bases for ongoing improvement within the organization.

## Roles and responsibilities

- **Senior Management:** Develops the strategies to foster improved competencies among collaborators, promote the development of our human capital and to recruit and retain talent, and also creates conditions and policies that focus on the rights and conditions of decent work.
- **Human Resources:** Designs actions to implement the corporate strategies, receives staff concerns, fosters labor best practices and controls to maintain healthy workplace environments, and verifies legal compliance in regards to personnel management. This area also ensures the policies and procedures are followed at our workplaces, reporting anomalies and following the legal guidelines applicable.
- **Internal Control Department:** Verifies the policies and procedures are being followed according to the guidelines, company policy and law. Produces findings when anomalies are identified and reports these to senior management.
- All employees, contractors and suppliers that work with and in the name of Grupo México are responsible for adhering to our company policies and procedures, in addition to observing our Code of Ethics.

## Results

- There were no labor disputes at any of our more than 20 operating sites in 2019.
- The training hours increased 26% (over 2018) for all unionized and non-union personnel.
- Our Universidad I platform was consolidated to reach all our collaborators, offering more than 100 tutorials, infographics and training videos.
- We launched our high performance program for candidates with master's degrees, through which we have incorporated talented Mexicans from prestigious universities around the world.
- We have incorporated into our organization a new policy on respect and the wellbeing of our collaborators.
- We applied the assessments required under NOM-035 to promote physical and mental health to address the needs of our personnel.

We provided **26% more training hours to unionized and non-union personnel in 2019.\***

\* vs. 2018

## Diversity, inclusiveness and non-discrimination

### 103-1 and 103-2

Diversity, inclusiveness and non-discrimination are values that form part of our Code of Ethics and are practices throughout the entire organization. At Grupo México Infrastructure, we promote diverse and inclusive work environments that transform us positively according to global trends and the needs of society.

We do not discriminate on the basis of age, social condition, ethnic origin or religious beliefs when considering new hires and developing the potential of our employees. On the contrary, senior management, together with the organization, encourages inclusiveness and diversity of ideas, which helps us to grow together with our employees. Proof of this was the hiring of more than 300 people for the construction of the Juchitan Hospital in Oaxaca, where a large portion of the workers were Zapotec or Mixtec. The same was the case for the El Refugio Wind Farm, in the same community.

To maintain our commitment to inclusiveness and non-discrimination, we have operating procedures for recruitment and training for Human Resources leadership, and for all personnel that attend the needs of our collaborators, including vice-presidents. In parallel, we offer a support line to receive reports of anomalies, complaints, rights violations and work conditions.

At the Infrastructure Division, we focus on improving work opportunities, regardless of gender, creed, sexual preference, nationality or any other conditions that would limit someone from joining our team. We reinforce the awareness and consciousness of our employees to be more inclusive and respectful both within and outside the company, but foremost, to be the basis for the development of all, women and men, under equal conditions and to be examples for society.

## Workplace inclusiveness

### Diversity of governance bodies and employees

#### 405-1

The workforce of the Infrastructure Division closed 2019 with an annual average of 2,744 employees, including unionized and non-union personnel, at our six subsidiaries. This is a 19% decrease compared with 2018 due to the completion of various projects in our different lines of business.



Because of the nature of the business of our different Infrastructure Division subsidiaries, 80% of our collaborators are men, primarily working in the oil and construction divisions. Meanwhile, our largest representation of women is in the highways line of business, where many work in the operational area. We are making efforts to empower women in their professions and in their communities.

Of note is that 50% of our collaborators are 26 to 40 years of age, which speaks to ours being a young and inclusive organization. Twenty percent are over 51 years of age, which is directly related to experience in decision-making; in addition to promoting respectful workplaces.

Unit / Site / Subsidiary	Men	%	Women	%	Total
Oil	678	90.8%	69	9.2%	<b>747</b>
Construction	1,057	88.5%	137	11.5%	<b>1,194</b>
Energy	56	73.7%	20	26.3%	<b>76</b>
Engineering	335	73.0%	124	27.0%	<b>459</b>
Highways	182	67.9%	86	32.1%	<b>268</b>
<b>Total</b>	<b>12.55%</b>		<b>436</b>		<b>2744</b>

Unit / Site / Subsidiary	18 to 25 years	%	26 to 40 years	%	41 to 50 years	%	> 51 years	%	Total
Oil	23	3.1%	401	54.1%	196	26.5%	121	16.3%	<b>741</b>
Construction	156	13.1%	518	43.5%	236	19.8%	280	23.5%	<b>1190</b>
Energy	3	4.1%	55	74.3%	15	20.3%	1	1.4%	<b>74</b>
Engineering	8	1.7%	255	54.0%	78	16.5%	131	27.7%	<b>472</b>
Highways	22	8.2%	142	53.2%	55	20.6%	48	17.9%	<b>267</b>
<b>Total</b>	<b>212</b>		<b>1371</b>		<b>580</b>		<b>581</b>		<b>2744</b>

## Ratio of basic salary and remuneration of women to men

### 405-2

Infrastructure Division employees receive a salary package that includes the base salary, productivity bonuses, cash benefits and profit sharing. The average salary in 2019 was equal to 5.2 times the local minimum wage.

Equal salaries and professional opportunities between men and women are a basic premise of the organization. We use equitable salary scales without distinction of gender, compensating the talent of our men and women under equal conditions.

Base salary of women vs. men					
Unit	Senior Management	Managers	Supervisors	Analysts	Staff
Oil	N/A	0.16	0.25	0.16	0.11
Construction	N/A	0.02	0.17	0.26	0.09
Energy	N/A	0.20	0.23	0.18	0.48
Engineering	0.50	0.00	0.2	0.05	0.22
Highways	N/A	N/A	0.23	N/A	N/A

## Development of Human Capital

### 103-1 and 103-2

Grupo México Infrastructure knows that the professional growth of our collaborators translates into a more competitive company with better service. This is why we invest in more than 30,000 hours of training for our unionized and non-union personnel, offering opportunities to improve the aptitudes of our employees.

The courses are defined based on the job profiles, personnel aptitudes and the needs of our clients and the business. As a result, we build virtuous circles where we all grow and we also meet compliance with Mexican law.

It should be noted that our trainings are not strictly technical; each training program is structured and organized to strengthen the institutional and technological competencies the organization requires to be more competitive.

## Average hours of training per year per employee

404-1

For Grupo México Infrastructure, the training and development of our collaborators is key to growing together in the organization and to professionalizing our activities. In this regard, 34,155 training hours were provided to our workforce in 2019, representing a 26% increase over the 25,089 hours delivered in 2018.

Given that 80% of our collaborators are men, this trend continues in our trainings. Men received 28,252 hours of training, while women received 5,903 hours.

The three topic areas most addressed were:

1. Health and safety
2. Technical competencies
3. Specialized technologies

The trainings were mostly provided by outside consultants through in-person courses. However, we also capitalized on the use of digital technologies, the Universidad I platform in particular, which is focused on developing the skills of our collaborators through online education.

Total hours of training			
	Total hours of training (women)	Total hours of training (men)	Total hours of training by category
Management	141	232	373
Administrative	5726	11,868	17,594
Operational	36	16,152	16,188
<b>Total hours of training</b>			<b>34,155</b>

## Program for upgrading employee skills and transition assistance programs

404-2

### Principal training programs

#### Universidad I Platform

Universidad I is the digital center for developing human talent in the Infrastructure Division, where not only do personnel receive training on the technical, theoretical and practical elements they need for their work, but they contribute by giving form to the culture of the organization. The mission is to be an innovative media that generates, assimilates and transfers knowledge to Infrastructure Division personnel. There are currently more than 100 different contents available on the platform.

#### Health and Safety

The health and safety of our personnel are essential to the growth of the business. In this regard, we design training programs each year that are based on the position, risks and exposure to hazards. We promote the awareness and knowledge of our collaborators to reduce incidents in the workplace, at home and during transit.

#### Internal civil protection programs

Training is offered at all our operational and administrative sites to respond to emergencies and protect personnel in the event of fire, earthquake and other incidents.

#### Dissemination of our Code of Ethics

All employees, suppliers, customers and related parties are held to our Code of Ethics. Our values and business ethics are reinforced annually with our collaborators, as well as awareness of human rights and how these are respected and applied within the company.

One of the chapters in the code, Our business relations, emphasizes antifraud and anti-corruption practices.

**Executive and team coaching**

Intended for Grupo México Infrastructure executives, the objective is to improve management skills to support the business strategies.

**Financial support for academic studies**

In support of individual development plans, aligned with the Division’s succession plan, financial support is offered to complete academic studies (bachelor’s, engineering and post-graduate degrees).

**Agreements with universities**

To contribute to the ongoing education of our collaborators, we have built strategic alliances with international and private universities and higher education academic institutions.

**Training programs**

Areas of opportunity are identified from the annual performance reviews with employees and courses are selected to focus on developing the knowledge and skills that will maximize their qualities according to the employee’s position.

**Professionals in development**

This program identifies and develops youth with potential. Their competencies are matured in the medium term to then join the Division in management positions.

**Master’s degree program**

Executive program aimed at students enrolled in MBA programs. As part of their professional experience, students join the company as interns, with potential opportunities to be hired into a management position on demonstrating the skills needed.

**Percentage of employees receiving regular performance and career development reviews**

**404-3**

Grupo México Infrastructure personnel participate in performance reviews annually to capitalize on the skills of our employees, identify areas of opportunity and to design measures to improve their performance, and also to acknowledge their achievements and efforts. The goals are defined according to the SMART methodology and are aligned with the corporate strategy of the company. These actions make our company more competitive for our customers, to improve our service and production, and to foster the professional growth of our employees.

In 2019, 980 performance reviews were held, double the number of reviews conducted in 2018 (458 reviews) and 35% progress in terms of our total employees. With this, our progress continues to reach 100% of our workforce.

Employee category	Number of employees (Women)	Number of employees (Men)	Total number of employees (A)
Employees	242	532	<b>774</b>
Operations	54	152	<b>206</b>
<b>Total</b>	<b>296</b>	<b>684</b>	<b>980</b>

**Labor Practices**

**103-1 and 103-2**

At Grupo México Infrastructure, communication and dialog with the unions is ongoing and inclusive. We respect and observe the regulations set out in the Mexican Federal Labor Law. Our actions are in accordance with law and our Code of Ethics. In this regard, we offer competitive and fair salaries and we invite the community to join our team, under equal and competitive labor conditions, and always respecting beliefs and ethnic origin.

As part of our labor practices, child labor and exploitation do not figure in our values and we do not engage in these practices. We have filters in place that prevent any type of violation of labor rights.

Dialog, negotiation and agreements are actions we practice to offer our employees fair conditions. We recognize our obligations and responsibilities, as agreed to in collective bargaining agreements, acting within the framework of the law and according to our values and work culture.

## Information on employees and other workers

### 102-8

Although our collaborators have indefinite or permanent contracts, because of the nature of our construction operation, we have a significant number of contract workers.

Unit / Subsidiary	Permanent		Contract	
	Men	Women	Men	Women
Oil	672	69	0	0
Construction	37	16	1,016	121
Energy	54	20	0	0
Engineering	324	121	0	0
Highways	181	86	0	0
Corporate	24	3	0	0
<b>Total</b>	<b>1,292</b>	<b>315</b>	<b>1,016</b>	<b>121</b>

## Collective bargaining agreements

### 102-41

At Grupo México Infrastructure, we ensure compliance with the labor laws and respect for union autonomy, two factors that strengthen our new work culture, which is based on stability and productivity. At 2019 close, we have 1,458 unionized employees, representing 53% of the total division workforce.

There were no strikes or lockouts in the Grupo México Infrastructure Division in 2019.

## Minimum notice periods regarding operational changes

### 402-1

The Infrastructure Division works according to our new work culture, where communication and ongoing dialog with all our collaborators and union representatives is key in an environment of trust, responsibility and autonomy.

Changes that would have an impact on operations are communicated during our work meetings, respecting the advance notice required by the labor laws.

Negotiations are conducted according to the guidelines established in the Mexican Federal Labor Law, ensuring agreements are reviewed prior to the expiry established in the collective bargaining agreements. The agreements

are laid out in the contract and in review agreements. The effective dates are established through the union representatives and made available to the union members.

## Recruitment and retaining talent

### 103-1 and 103-2

The development of our business directly depends on recruiting and retaining talent. We seek out the best candidates to join our workforce and offer competitive work conditions, promoting equity and transparency in hiring. In parallel, our employees receive continual feedback on their performance through annual reviews. Plans are developed based on the results of these reviews, to further develop the skills and knowledge of our employees.

## New employee hires and employee turnover

### 401-1

There were 1,693 new hires in the Infrastructure Division in 2019. The job opportunities were in the construction line of business. The principal places were Cananea and Nacozari in Sonora, and Juchitan in Oaxaca.

Meanwhile, the oil line of business also required a larger number of people to meet our operational commitments. Given the nature of the business and the operating conditions, most the new hires were men (89%), while 11% were women, who were channeled mainly to administrative jobs.

Unit / Site	New Hires							
	By age group				Total 2019	By gender		
	18 to 25	26 to 40	41 to 50	≥ to 51		Men	Women	Total 2019
Oil	33	170	48	17	<b>268</b>	238	30	<b>268</b>
Construction	118	411	359	84	<b>972</b>	934	38	<b>972</b>
Energy	4	16	1	0	<b>21</b>	17	4	<b>21</b>
Engineering	15	118	55	17	<b>205</b>	152	53	<b>205</b>
Highways	35	90	60	14	<b>199</b>	148	51	<b>199</b>
Fuels	20	8	-	-	<b>28</b>	26	2	<b>28</b>
<b>Total</b>	<b>225</b>	<b>813</b>	<b>523</b>	<b>132</b>	<b>1,693</b>	<b>1,515</b>	<b>178</b>	<b>1,693</b>

Regarding the age ranges, 48% of the new hires were between 26 and 40 years of age, followed by groups between 41 and 50. As non-discrimination is part of our Code of Ethics at Grupo México, we are proud to say that 8% of the new hires were people over 51 years of age, continuing to offer professional growth focused on the experience and contribution of employees regardless of their age.

The Infrastructure Division reports a 6.67 turnover rate for 2019, far below the national average.

## Employee benefits

401-2

We offer the following benefits over those required by law to contribute to the well-being of our Infrastructure Division employees.

Salary-rated	Other
Life insurance	Transportation service
Major medical insurance	Employee cafeterias
Savings fund	Scholarships for employees and their children
Grocery vouchers	Share purchase plan for employees (management)
Retirement plan	

We seek out the **best people**, offering **competitive work conditions**.



We offer benefits above those required by law to contribute to the wellbeing of our Infrastructure Division employees.

We offer more than **10 training programs** to further develop the skills and knowledge of our employees.

## Transportation Division

### Our People

103-1, 103-2, 102-41, 402-1

The success of our business model resides in the talent and development of our collaborators. At GMXT, we are continually working to promote a work culture where positive leadership consolidates our company as an example to follow in terms of personal development and wellbeing at work. In this regard, we place especial emphasis on listening and responding to concerns from our collaborators, received through different organizational tools and mechanisms. We have a reporting line, managed by a third party, that helps us to identify cases of abuse of authority and any violation of the Code of Ethics and conduct of our company.

Grupo México Transportation promotes diversity, inclusiveness and gender equality at our workplaces. Year after year, we ensure equal opportunity for all our collaborators, without distinction of race, creed, age, gender, nationality or sexual preference. Also, we are continually making efforts to guarantee respect between collaborators and the non-discrimination of individuals and the communities where we work, including minority and indigenous groups.

The principal pillar of our performance is based on recruiting and maintaining a team that is motivated with challenging and interesting work, adequate and competitive salary packages, and the promotion of training and development of skills to encourage creativity and innovation in the day-to-day work and processes of our company. At GMXT, we are continually improving the organizational climate, for which we monitor our employee turnover rate and the level of commitment among employees to achieving our goals.

The Grupo México Transportation Division prohibits any type of forced or child labor and we support freedom of union association and collective bargaining. The collective bargaining agreements for our operations are respected according to the regulations in place in the regions where we operate. In 2019, 77% of the GMXT workforce was affiliated with a union. The union in which our employees in Mexico are represented is the:

- Sindicato de Trabajadores Ferrocarrileros de la República Mexicana (Mexican Railroad Workers Union)

The unions in which our employees in the United States are represented are:

- UTU Smart Transportation
- International Brotherhood of Electric Workers
- Brotherhood of Maintenance of Way Employees

Under international best practices, and respecting the regulations in effect in the countries where we operate, we have notice periods to communicate significant or material changes in our company to our employees.

### Organizational management

### Average hours of training per year per employee

404-1

The GMXT policies, manuals and procedures establish the baseline for the conduct of our Grupo México Transportation Division collaborators, aligned with the regulations in the regions where we operate and complemented with international best practices on human resources management. We promote a culture of belonging and leadership in our organization through different workplace safety and wellbeing programs. As a result, our company maintains its position of leadership in the freight transportation sector.

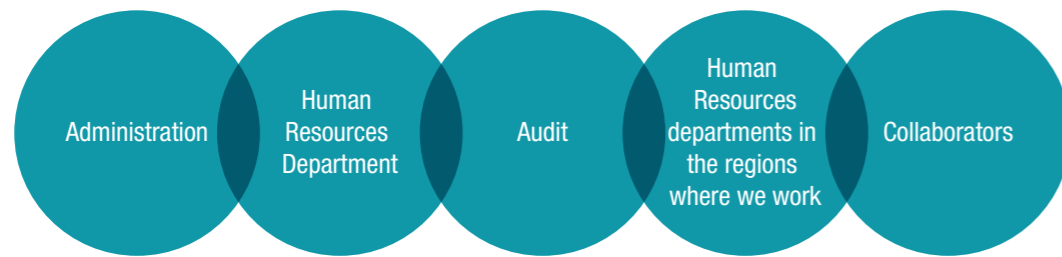
The most valuable asset of the Transportation Division is the talent of our collaborators. In this regard, we develop programs and trainings to foster a corporate culture of excellence, based on respect and professional development. Every year, we review and evaluate our performance metrics and indicators to identify the potential of each collaborator. We also have mechanisms that evaluate the effectiveness of our policies and procedures, considering the performance, attitude and satisfaction of our collaborators. We started a process in 2017 to analyze the health of the organization with the support of a third party to identify important aspects to improve the organizational climate of our company. This exercise has led to the Transportation Division initiating important changes to promote better and more efficient recruitment and talent development.

**Policies**

As in the rest of Grupo México, the Transportation Division has policies that set the basis for the management and development of our labor relations with employees. These policies have been approved and promoted by senior management and are available to all employees through the company's intranet portal. These policies include the Code of Ethics and the General Human Rights Policy.

The policies are published on the networks of the different Grupo México divisions, including the Transportation Division, and are available at any time to any person with access to our network. For people who do not have access to the company networks, we disseminate the information via other non-electronic media, such as bulletin boards, posters, documents and pamphlets to reach all our collaborators.

**Roles and responsibilities**



**Diversity, inclusiveness and non-discrimination**

103-1, 103-2

Diversity, inclusiveness and non-discrimination are values that govern our business model. We have policies, procedures, manuals and guidelines to ensure there are no cases of discrimination in our company on the basis of age, gender, race, religious beliefs, nationality or sexual preference. Also, our protection mechanisms for our collaborators help us to mitigate and reduce risks of harassment, as well as emotional health problems.

Focusing our efforts on inclusiveness and equality, we have sought to encourage the participation of women in the railroad industry. As a result, part of our management team are women. We strive to include women in our corporate offices to start to reduce the gap in our company because of the nature of the industry.

**Development of Human Capital**

103-1, 103-2

As in the rest of Grupo México, the Transportation Division is committed to caring for the wellbeing of our collaborators. Through our training and personal development plans, we focus on technical training and perfecting competencies, and also the development of skills and aptitudes to promote the individual and professional growth of our personnel.

We have an operational training office in the Grupo México Transportation Division, through which our collaborators working in the operation of our rail lines and locomotives receive training and refresher training on the railroad operation. It is essential that our personnel in the field and supervisors receive ongoing training to ensure our railroads remain competitive and, above all, safe.

At Grupo México Transportation, including our subsidiaries in the United States, we have training programs that respond to the needs of the operation, although we mostly focus on the topic area of occupational health and safety. In 2019, we strengthened the leadership of our company with management skill training programs for all our managers, deputy directors and vice-presidents. This has led to improved performance among our collaborators and better communication between the teams in our company. Our collaborators received 488,616 hours of training in 2019, which on average represents 44 training hours per employee in the Transportation Division.

**Recruitment and retaining talent**

103-1, 103-2

We promote recruiting local talent to have a positive impact on the economies of the communities that neighbor our operations. We openly publicize the obligations and skills required for each position, and also how we measure results under our assessment systems. We promote dialog with personnel to identify occupational needs and design training, development, succession and personal career plans.

## New employee hires and employee turnover

401-1

### New hires by region, age group and gender. Transportation Division 2019

Region	18 to 25	26 to 40	41 to 50	≥ to 51	Men	Women	Total 2019
Mexico	186	385	62	9	593	49	642
USA	22	113	74	70	255	24	279

### Separations by region, age group and gender. 2019 Transportation Division

Region	Gender		Age group				Total 2019
	M	W	18 to 25	26 to 40	41 to 50	≥ to 51	
Mexico	761	65	63	367	95	301	826
USA	308	33	21	116	79	125	341
<b>Total</b>	<b>1,069</b>	<b>98</b>	<b>84</b>	<b>483</b>	<b>174</b>	<b>426</b>	<b>1,167</b>

### Turnover rate by year Transportation Division 2019

Year	Turnover rate
2017	7.17%
2018	11.37%
2019	10.55%

### Turnover rate by region Transportation Division 2019

Region	Turnover rate
Mexico	8.32%
United States	30.02%

### Turnover rate by gender Transportation Division 2019

Gender	Turnover rate
Men	10.12%
Women	19.60%

The restructuring of the FEC and Raven, and the consolidation of Grupo México Transportes explains the high turnover rate in the United States.

### Turnover rate by region and gender. Transportation Division 2019

Region	Turnover by region and by gender, men	Turnover by region and by gender, women
Mexico	7.99%	16.05%
United States	29.59%	34.74%

### Turnover rate by age group and region. Transportation Division 2019

	18 to 25	26 to 40	41 to 50	≥ to 51
Mexico	10.68%	8.33%	4.12%	11.46%
USA	56.66%	32.86%	30.04%	25.88%
<b>Total</b>	<b>13.40%</b>	<b>10.15%</b>	<b>6.77%</b>	<b>13.70%</b>



Grain hoppers in Culiacan, Sonora, Mexico.

## Labor practices

103-1, 103-2

The Grupo México Transportation Division guarantees compliance with all regulations in the areas where we operate. We adhere to our Code of Ethics and to the Grupo México corporate policies, on the awareness that our collaborators are our priority. In this context, 77% of our collaborators are members of a union. As mentioned at the start of this chapter and as part of our labor practices in adherence of law, child labor, exploitation and abuse of our collaborators is prohibited. We have a policy of zero tolerance to abusive practices and any behavior that would violate any law or our Code of Ethics.



## Diversity of governance bodies and employees

405-1

Percentage of women by employee category			
	W	M	% W
Operational	38	8,538	0.4%
Middle management	445	1,927	19%
Executives (Managers, Superintendents, Deputy Directors and Directors)	17	99	15%

## Ratio of basic salary and remuneration of women to men

405-2

Base salary of women to men	
Operational	.93
Middle management	.98
Executives	.88

We adhere to our **Code of Ethics** and the Grupo México corporate policies, with awareness **that our collaborators are our priority.**

## Employee benefits

401-2

We offer the following benefits over those required by law to ensure job stability for our Transportation Division employees:

Salary-related
Life insurance
Major medical insurance
Family protection insurance
Savings fund
Grocery vouchers
Productivity bonus
Pension fund
Other
Housing assignment
Utilities (power, water, etc.)
Medical clinics
Elementary and middle school for the children of employees
Employee cafeterias
Sports facilities
Scholarships for employees and their children
Share purchase plan for employees
Retirement plan



# GRUPO MÉXICO FOUNDATION

Dr. Vagon, the Health Train, is one of the most important healthcare initiatives in Latin America.



## GRUPO MÉXICO FOUNDATION

The Grupo México Foundation is a nonprofit organization that fosters the wellbeing of Mexico through social development programs and strategic alliances, supporting the institutional development of NGOs in Mexico. Grupo México Foundation works primarily in four areas that have a direct impact on the development and wellbeing of Mexico:

- Institutional development
- Education and culture
- Environment
- Health

Grupo México Foundation has achieved its goals through flagship programs that are aligned with these strategic areas. This section of the report presents the most relevant highlights of the active programs of Grupo México Foundation in 2019. To find out more about the actions and programs of the Foundation, visit [www.fundacion-grupomexico.org](http://www.fundacion-grupomexico.org).

### Institutional Development

#### Red de Asociaciones y Fundaciones Empresariales

The *Red de Asociaciones y Fundaciones Empresariales* (Network of Associations and Business Foundations) (the Network) is a place for institutional linkage and exchange, encouraging collaboration between non-governmental organizations to develop skills. To achieve this, the Grupo México Foundation Network organizes **trainings, forums, spaces for linkage, conferences and seminars**. The Network has **232 members**, including corporate foundations, socially responsible companies, social agencies, academies and universities, government agencies and more than **4,000 charity organizations**.

The activities of the Network include trainings for members and partners. In 2019, the Network organized **131 in-person workshops**, representing **646 hours of training** on different topics.

#### Expo Red de Asociaciones

Each year, the Grupo México Foundation Network of Associations and Business Foundations organizes an **Expo Red de Asociaciones** event, the goal of which is to provide a space for linkage among Mexican NGOs and to

strengthen the work of the Network. The event was held June 19-20, 2019 with nearly 400 participants, representing more than 200 NGOs. The Expo Red de Asociaciones brings together experts and sector leaders to contribute to strengthening and improving the operation of NGOs in Mexico.

### Conciencia Cinemex

The Grupo México Foundation support programs for institutions include our Conciencia Cinemex program, which we operate under our strategic area of support for institutions and with the collaboration of the Cinemex chain of movie theaters. Under the premise of supporting other NGOs to achieve their goals, Conciencia Cinemex has five programs and activities: Benefit Premiere, Cineminuto, the Cinemex Run, Social Marketing and Marquee Campaigns.

## Education and culture

Education and culture are strategic areas of the Grupo México Foundation, operating three key programs to support the intellectual and emotional development of children and youth in Mexico: educational workshops, Grupo México volunteer programs and the editorial projects of the foundation.

### Educational workshops, professional development and educational materials

Grupo México Foundation has been collaborating with government agencies since 2016 to promote education and development for children and youth in Mexico through educational and teaching materials and quality information on health and life. The material is available through the platform [www.educacionsaludyvida.org](http://www.educacionsaludyvida.org). The platform received more than 46,000 visits and 11,120 downloads of educational material in 2019. The Grupo México Foundation, with partners, provided 115 educational consultations and 12 legal consultations on discussion forums on the platform.

## Grupo México Volunteers

### Grupo México Volunteer Day

Volunteering creates resilient communities and consolidates the social weave and trust to promote individual and collective actions. This is why, for the seventh year in a row, Grupo México Foundation held the GMF Volunteer

Day, where employees from Grupo México and Cinemex, together with their families, come together in benefit of the communities where we operate. More than **10,000 volunteers** participated in the event this year.

## Editorial Fundación Grupo México

For 10 years, the Grupo México Foundation has been editing and publishing books on the different ingredients and products found in Mexican cuisine to preserve this intangible heritage of humanity. In 2019, the featured ingredient was the bean and its relevance in Mexican cooking and traditions. The book, Frijol, Raíces e Historia (The Bean, its Roots and History) is a finalist in the Gourmand World Cookbook Awards in the Single Subject category.

## Environment

### Mexicanos Sembrando

The Grupo México Foundation Mexicanos Sembrando program plants trees in Mexico to restore the ecosystems and mitigate the effects of climate change. We reforested 2,200 hectares in 2019 in 104 municipalities in 25 Mexican states. The survival rate in 2019 was 2,128,001 trees.

The Grupo México Foundation nurseries are the most important in the private sector and have a high-tech irrigation system, greenhouses, shade netting, and the capacity to product five million trees a year. We have **more than 200 native species** of vegetation from different regions around Mexico, which **helps to maintain the stability of the ecosystems.**

### Vagón Verde

In coordination with Grupo México Transportation and using one gondola and one boxcar, the Foundation has been transporting and donating trees to communities along the railway lines in Mexico since 2015. This project supports the reforestation actions of the *Mexicanos Sembrando* program and raises aware-

ness on protecting and caring for the environment, and also promotes recycling. In 2019, *Vagón Verde* (Green Train) donated 416,000 trees of 24 different species to 19 municipalities in Mexico.

## Health

Promoting health and wellbeing are priorities for the Grupo México Foundation. Under the strategic area of health and in association with Grupo México Transportation, the Foundation operates Dr. Vagon, the Health Train. Also, the Foundation supports health and wellbeing initiatives each year, coordinates donations and contributes to the development of health-related infrastructure, such as the Juchitan hospital in Oaxaca.

### Dr. Vagon, the Health Train

Dr. Vagon, the Health Train, celebrated its fifth anniversary in 2019. Thanks to the initiative and operational support of Grupo México Transportation and the coordination of the Grupo México Foundation, this initiative has delivered **more than 1.4 million** free health services to over **360,000** people in **226** communities in **22** Mexican states. Dr. Vagon has traveled more than **82,000** kilometers to take health services to those most in need.

The strategic partners and 2019 results for Dr. Vagon are summarized following:

- 107,943 free prescription medications delivered, with the support of Fundación Farmacias del Ahorro.
- 5,024 patients received 31,493 audiology services under the Ponte Oreja program, in collaboration with Fundación MVS Radio and Fundación Audiotech.
- 17,875 patients received attention and 16,376 pairs of prescription eyeglasses were delivered free of charge thanks to the collaboration of Essilor and the optometry services on the health train.
- 9,965 patients received chiropractic services and physical therapy.
- 5,782 physical therapy devices were delivered.

- 40,859 scans and diagnoses were provided by Laboratorios LAPI and the Dr. Vagon experts.
- 9,265 mammograms were provided in collaboration with FUCAM to detect breast cancer.
- 8,016 patients received services from the Diabetes Clinic on the health train, supported by the Japanese pharmaceutical company Takeda.
- 64,103 lab tests, studies and specialized consultations were provided for the treatment of kidney disease, diabetic retinopathy and other complications associated with diabetes.
- 235 vasectomies and 748 intrauterine devices were provided under the family planning program.
- 5,503 nutritional consultations were held to combat obesity and malnutrition in Mexico.
- 2,205 psychological guidance sessions and a phone line and instant messenger service to provide psychological assistance.
- **150 movie screenings** were held for more than 21,000 people throughout Mexico

### Juchitan Hospital

In September 2017, the Grupo México Foundation collected donations to respond to the crisis caused by the earthquake. The Foundation multiplied the donations received 17 times and this money was invested in the construction of the Maternity and Infant Hospital in Juchitan, Oaxaca. The hospital is expected to open in 2020.

### Details of the funds raised for the Juchitan hospital

Donations from the public	\$10,085,567
Contributions from Grupo México Foundation	\$27,643,532
<b>Total raised</b>	<b>\$37,729,099</b>
<b>GMF additional donation</b>	<b>\$140,270,901</b>
<b>Total Investment</b>	<b>\$178,000,000</b>

Representing an investment of \$178 million pesos, the Juchitan Maternity and Infant Hospital will serve over 250,000 local residents.

# **VERIFICATION LETTER**



Deloitte Asesoría en Riesgos, S.C.  
 Av. Paseo de la Reforma No. 505, Piso 28  
 Colonia Cuauhtémoc  
 06500 Ciudad de México,  
 México  
 Tel: + 52 (55) 5080 6000  
 Fax: + 52 (55) 5080 6001  
 www.deloitte.com/mx

## Independent assurance report on the 2019 Sustainable Development Report to Grupo México, S.A.B. de C.V., to the Management of Grupo México.

### Responsibilities of Grupo México and independent reviewer

The Management of Grupo México is responsible for the elaboration of the 2019 Sustainable Development Report (SDR) for the period from January 1st to December 31st, 2019, as well as ensuring its content, definition, adaptation and maintenance of the management systems and internal control from which the information is obtained, and which is also free of material misstatement due to fraud or error. Our responsibility is to issue an independent report based on the procedures applied during our review.

This report has been prepared exclusively in the interest of Grupo México in accordance with the terms of our agreement letter dated April 30th, 2019, therefore we do not assume any responsibility to third parties and is not intended to be nor should it be used by someone other than the Management of Grupo México.

### Scope of our work

The scope of our assurance was limited which is substantially lower than a reasonable assurance scope, therefore the assurance provided is also lower. This report in no case can be understood as an audit report.

We conducted the 2019 SDR review under the following conditions and/or criteria:

- The review of the GRI Standards disclosures in accordance with the reporting requirements as specified in the GRI Content Index of the 2019 SDR.
- The data consistency between the information included in the 2019 SDR with supporting evidence provided by the Management.

We have complied with the independence and ethics requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA Code) based on integrity, objectivity, professional competence and due care, confidentiality and professional behavior principles.

### Assurance standards and procedures

We have performed our work in accordance with the International Auditing Standard ISAE 3000 Revised Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Boards (IAASB) of International Federation of Accountants (IFAC).

Our review work included the formulation of questions to the Management as well as various departments of Grupo México that have participated in the elaboration of the 2019 SDR and the application of certain analytical and sample screening tests procedures described below:

- Meetings with staff of Grupo México to learn the principles, systems and applied management approaches.
- Analysis of the process to collect, validate and consolidate the data presented in the 2019 SDR.
- Analysis of scope, relevance and integrity of the information included in the 2019 SDR in terms of the understanding of Grupo México and of the requirements that stakeholders have identified as material issues.
- Selected sample review from the evidence that supports the information included on the 2019 SDR.
- Quality assurance by an independent partner of the project to verify consistency between this report and the proposal, as well as work process quality and deliverables.

The following table details the revised contents according to the GRI Sustainability Reporting Standards Guideline:

102-15	205-1	303-1	304-3	401-1	412-2
102-17	205-2	303-3	305-1	403-4	413-1
102-41	205-3	303-4	305-2	403-9	MM3
102-42	301-1	303-5	306-2	404-1	MM4
204-1	302-1	304-2	306-3	404-2	MM6

These indicators were selected for the independent review in accordance with the following criteria:

- Materiality of Grupo México referred in the 2019 SDR.
- Information contained in the 2019 SDR.
- Information provided during the meetings and site visits with the interviewed staff.
- Review of the evidence provided by Grupo México staff of this project.

### Conclusion

Based on our work described in this report, the performed procedures and the evidence obtained, nothing comes to our attention that could make us believe that the indicators and disclosures reviewed in the 2019 SR contain significant errors or have not been prepared in accordance with the reporting requirements established in the GRI Standards. For those GRI Standards disclosures and indicators of the Disclosure Sector where Grupo México did not report in quantitative terms (numeric) the independent reviewer reviewed the qualitative information, which includes procedures, policies, evidence of the activities performed, among others.

### Action alternatives

Deloitte has provided Grupo México a report with the most significant action alternatives for future reporting, which do not modify the conclusions expressed in this independent review report.

Deloitte Asesoría en Riesgos, S.C.

Deloitte Touche Tohmatsu Limited affiliated Firm

Rocío Canal Garrido  
 Partner of Deloitte Asesoría en Riesgos, S.C.  
 August 4th, 2020

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# GRI DISCLOSURE INDEX



# GRI Disclosure Index

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	102-22	Composition of the highest governance body and its committees	57				
	102-24	Nominating and selecting the highest governance body	57				
	102-26	Role of the highest governance body in setting purpose, values and strategy	57				
	102-29	Identifying and managing economic, environmental and social impacts	61				
	102-30	Effectiveness of risk management processes	61				
	102-31	Review of economic, environmental and social topics	61				
	102-32	Highest governance body's role in sustainability reporting	61				
	102-33	Communicating critical concerns	61				
<b>BUSINESS ETHICS</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary	70				
	103-2	The management approach and its components	70				
	103-3	Evaluation of the management approach	70				

GRI Standard	Content	Description	Pages				
			Grupo México	Mining Division	Infrastructure Division	Transportation Division	Independent Assurance
<b>BUSINESS ETHICS</b>							
GRI 102: General Disclosures, 2016	102-16	Values, principles, standards and norms of behavior	76				
	102-17	Mechanisms for advice and concerns about ethics	77				
GRI 205: Anti-corruption, 2016	205-1	Operations assessed for risks related to corruption	77				
	205-2	Communication and training about anti-corruption policies and procedures	78				
	205-3	Confirmed incidents of corruption and actions taken	80				
GRI 206: Anti-Competitive Behavior, 2016	206-1	Legal actions for anti-competitive behavior, antitrust and monopoly practices	80	For more information, see the Grupo México 2019 Annual Report at: <a href="https://www.gmexico.com/GMDocs/ReportesFinancieros/Esp/2019/RF_ES_2019_IFN.pdf">https://www.gmexico.com/GMDocs/ReportesFinancieros/Esp/2019/RF_ES_2019_IFN.pdf</a>			
GRI 307: Environmental Compliance, 2016	307-1	Non-compliance with environmental laws and regulations	81				
GRI 415: Public Policy	415-1	Political contributions	80				
GRI 419: Socioeconomic Compliance, 2016	419-1	Non-compliance with laws and regulations in the social and economic area	81	For more information, see the Grupo México 2019 Annual Report at: <a href="https://www.gmexico.com/GMDocs/ReportesFinancieros/Esp/2019/RF_ES_2019_IFN.pdf">https://www.gmexico.com/GMDocs/ReportesFinancieros/Esp/2019/RF_ES_2019_IFN.pdf</a>			
<b>WATER</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary		85	100	This is not a material topic for the Transportation Division	
	103-2	The management approach and its components		86	101		
	103-3	Evaluation of the management approach		89	102		

GRI Standard	Content	Description	Pages				
			Grupo México	Mining Division	Infrastructure Division	Transportation Division	Independent Assurance
<b>AGUA</b>							
GRI 303: Water and Effluents, 2018	303-1	Interactions with water as a shared resource		91	103	111	
	303-2	Management of water discharge-related impacts		96	105	Not material	
	303-3	Water withdrawal		97	105	111	
	303-4	Water discharge		98	107	Not material	
	303-5	Water consumption		100	109	Not material; only water withdrawal considered	
<b>CLIMATE CHANGE</b>							
GRI 201: Economic Performance, 2016	201-2	Financial implications and other risks and opportunities due to climate change	115, 134				
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary	115, 126				
	103-2	The management approach and its components	115, 126, 128, 139				
	103-3	Evaluation of the management approach	126, 139				
GRI 302: Energy, 2016	302-1	Energy consumption within the organization	117, 119, 121	121	121	121	
	302-2	Energy consumption outside the organization	117, 120				
	302-3	Energy intensity	128	131	131	131	
	302-4	Reduction of energy consumption	117				
	302-5	Reductions in energy requirements of products and services	115, 126	126	126	126	
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary	115, 116, 126				
	103-2	The management approach and its components	115, 126, 128, 139				
	103-3	Evaluation of the management approach	126, 139				
GRI 305: Emissions, 2016	305-1	Direct (Scope 1) GHG emissions	116, 117	118	118	118	
	305-2	Energy indirect (Scope 2) GHG emissions	116, 117	118	118	118	
	305-3	Other indirect (Scope 3) GHG emissions	116, 122	123	123	123	
	305-4	GHG emissions intensity	128	131	131	131	
	305-5	Reduction of GHG emissions	117, 132, 133	127, 128	127, 128	127, 128	
<b>WASTE AND EFFLUENTS</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary		143	163	This is not a material topic for the Transportation Division	
	103-2	The management approach and its components		143	164		
	103-3	Evaluation of the management approach		143	165		

GRI Standard	Content	Description	Pages				
			Grupo México	Mining Division	Infrastructure Division	Transportation Division	Independent Assurance
<b>WASTE AND EFFLUENTS</b>							
GRI 306: Effluents and Waste, 2016	306-1	Water discharge by quality and destination		154	107		
	306-2	Waste by type and disposal method		157	166		
	306-3	Significant spills		158	167	169	
	306-4	Transport of hazardous waste		162	N/A		
GRI 301: Materials, 2016	301-1	Materials used by weight or volume					
	G4-MM3	Total amounts of rock, tailings, sludges that present a potential risk		156	N/A	N/A	
<b>BIODIVERSITY</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary		173	197	203	
	103-2	The management approach and its components		173	197	203	
	103-3	Evaluation of the management approach		184	199	203	
GRI 304: Biodiversity, 2016	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		185	200	203	
	304-2	Significant impacts of activities, products and services on biodiversity		187	200	203	
	304-3	Habitats protected or restored		190	201		
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations		193	202		
	G4-MM2	The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place		194	N/A	N/A	
<b>OCCUPATIONAL HEALTH AND SAFETY</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary		209	246	258	
	103-2	The management approach and its components		209	247	259	
	103-3	Evaluation of the management approach		229	251	259	

GRI Standard	Content	Description	Pages				
			Grupo México	Mining Division	Infrastructure Division	Transportation Division	Independent Assurance
<b>OCCUPATIONAL HEALTH AND SAFETY</b>							
GRI 403: Workplace Health and Safety, 2018	403-1	Occupational health and safety management system		233	253	259	
	403-2	Hazard identification, risk assessment and incident investigation		234	253	264	
	403-3	Occupational health services		236	254	266	
	403-4	Worker participation, consultation and communication on occupational health and safety		237	255	264	
	403-5	Worker training on occupational health and safety		238	256	264, 267	
	403-6	Promotion of worker health		239	256	266	
	403-8	Workers covered by an occupational health and safety management system		240	256	259	
	403-9	Work-related injuries		241	257	268	
	403-10	Work-related ill health		245	Our collaborators reported no work-related illnesses in 2019	268	
	<b>HUMAN RIGHTS</b>						
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary	273				
	103-2	The management approach and its components	273				
	103-3	Evaluation of the management approach	273				
GRI 406: Non-Discrimination, 2016	406-1	Incidents of discrimination and corrective actions taken		297	301	304	
GRI 407: Freedom of Association and collective bargaining, 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk		298	302	305	
GRI 408: Child labor, 2016	408-1	Operations and suppliers at significant risk for incidents of child labor		299	302	306	
GRI 409: Forced or Compulsory Labor, 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor		299	303	306	
GRI 412: Human Rights Assessment, 2016	412-1	Operations that have been subject to human rights reviews or impact assessments		299	303	306	
	412-2	Employee training on human rights		300	304	307	
<b>LOCAL COMMUNITIES</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary		311	311	374	
	103-2	The management approach and its components		316	316		
	103-3	Evaluation of the management approach		350	350		

GRI Standard	Content	Description	Pages				
			Grupo México	Mining Division	Infrastructure Division	Transportation Division	Independent Assurance
<b>LOCAL COMMUNITIES</b>							
GRI 413: Local Communities, 2016	413-1	Operations with local community engagement, impact assessments and development programs		363	363	374	
	413-2	Operations with significant actual and potential negative impacts on local communities		366	366	378	
	G4-MM6	Number and description of significant disputes relating to land use, customary rights of local communities and indigenous peoples		366	366	N/A	
	G4-MM7	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and indigenous peoples, and the outcomes		369	369	N/A	
GRI 203: Indirect Economic Impacts, 2016	203-1	Infrastructure investments and services supported		369	369		
	203-2	Significant indirect economic impacts		369	369		
<b>INDIGENOUS PEOPLES</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary		383	383		
	103-2	The management approach and its components		384	384		
	103-3	Evaluation of the management approach		392	392		
GRI 411: Rights of Indigenous Peoples, 2016	411-1	Incidents of violations involving rights of indigenous peoples		393	393	399	
	G4-MM5	Total number of operations taking place in or adjacent to indigenous people's territories, and number and percentage of operations or sites where there are formal agreements with indigenous peoples' communities		393	393	N/A	
<b>OUR PEOPLE</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary	403		428	442	
	103-2	The management approach and its components	404		429	443	
	103-3	Evaluation of the management approach	406		406	406	
<b>DIVERSITY, INCLUSION AND NON-DISCRIMINATION</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary		408	431	444	
	103-2	The management approach and its components		408	431	444	
GRI 405: Diversity and equal opportunity, 2016	405-1	Diversity of governance bodies and employees		409	431	448	
	405-2	Ratio of basic salary and remuneration of women to men		410	433	448	

GRI Standard	Content	Description	Pages				
			Grupo México	Mining Division	Infrastructure Division	Transportation Division	Independent Assurance
<b>HUMAN CAPITAL</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary		411	433	445	
	103-2	The management approach and its components		411	433	445	
GRI 404: Training and Education, 2016	404-1	Average hours of training per year per employee		412	434		
	404-2	Programs for upgrading employee skills		413	435		
	404-3	Percentage of employees receiving regular performance and career development reviews		418	437		
<b>LABOR PRACTICES</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary		419	437	446	
	103-2	The management approach and its components		420	437	446	
GRI 102: General Disclosures, 2016	102-8	Information on employees and other workers		420	438		
	102-41	Collective bargaining agreements		422	438	442	
GRI 402: Labor/Management Relations, 2016	402-1	Minimum notice periods regarding operational changes		423	438	442	
	G4-MM4	Number of strikes and lock-outs exceeding one week's duration, by country		422	N/A	N/A	
<b>PERSONNEL RECRUITMENT AND RETENTION</b>							
GRI 103: Management Approach, 2016	103-1	Explanation of the material topic and its boundary		423	439	445	
	103-2	The management approach and its components		423	439	445	
GRI 401: Employment, 2016	401-1	New employee hires and employee turnover		426	439	447	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees		424	440	449	
GRI 202: Market presence, 2016	202-1	Ratios of standard entry level wage by gender compared to local minimum wage		424			





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