



GrupoMéxico

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2020

# SDR2019

2019 SUSTAINABLE DEVELOPMENT  
REPORT - SUMMARY

**Grupo Mexico is a member of the following Sustainability Indexes:**



**Dow Jones Sustainability Index**  
**MILA Pacific Alliance** (since 2017)



**FTSE4Good** (since 2019):

- Emerging Latin America
- BIVA (in Mexico)





## LETTER FROM THE PRESIDENT

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



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**Grow**

**We invest to generate opportunities and prosperity for the economies where we operate.**



**Promote**

**We strive to improve the quality of life of our people and that of our neighbor communities.**



**Protect**

**We care for and preserve the environment.**

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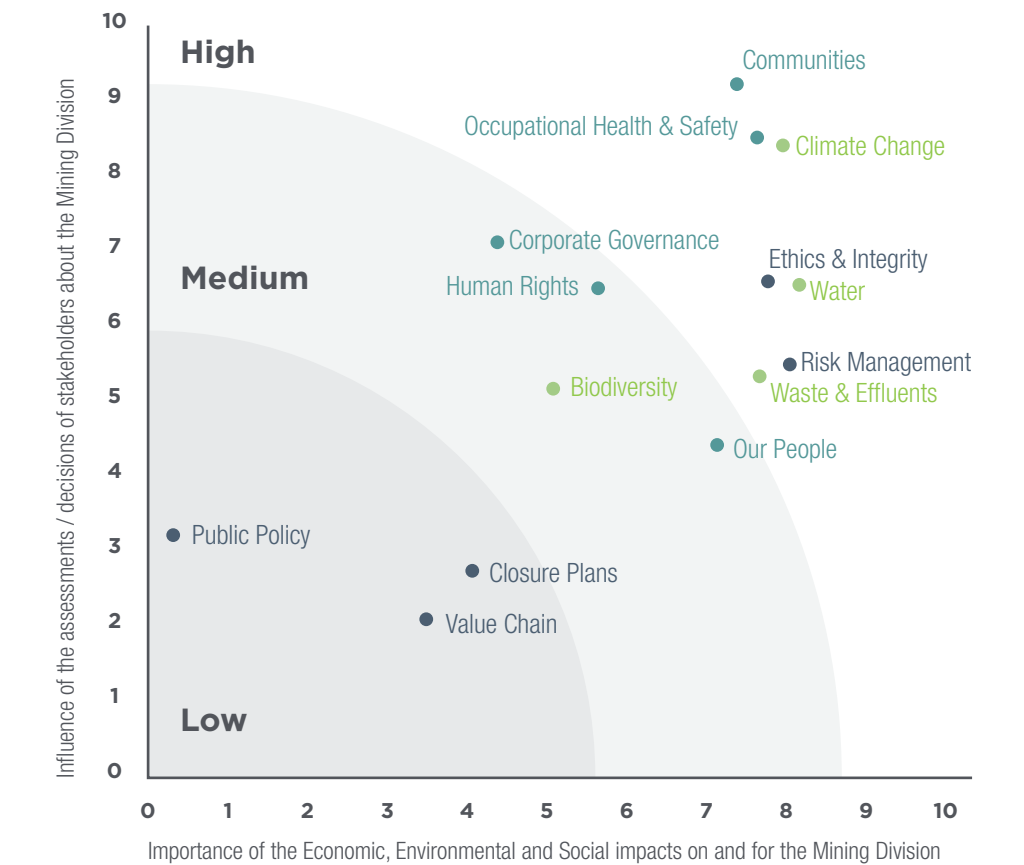
## SUSTAINABLE DEVELOPMENT VISION AND APPROACH

### Materiality Matrix

Our sustainable development strategy results from an ongoing analysis of the economic, social and environmental issues that are important for the organization and stakeholders.

-  **Our people and occupational health and safety**
-  **Communities where we operate**
-  **Business practices based on ethics and integrity**
-  **Climate change**
-  **Human rights**
-  **Water management**
-  **Management of mine waste**
-  **The railroad in urban areas**

Materiality matrix for the Mining Division\*



We are addressing these priorities with a **comprehensive long-term management plan focusing on risk prevention and mitigation.**

To achieve this, our health and safety and environmental management systems are based on ISO 45001 and ISO 14001. Our 2022 target is for all business units in the Mining Division to be ISO 45001 and ISO 14001 certified.

\* Refer to the Sustainable Development Report 2019 for the materiality matrices for the Transportation and Infrastructure Divisions (pgs. 29 and 32).



## TRUST OF OUR STRATEGIC PARTNERS

### Recognitions and initiatives

Our sustainability strategy and performances are being continuously evaluated by multiple ESG (Environment, Social and Governance) **rating agencies** and sustainability frameworks.

The scores we receive provide essential information to the **investor** community for acquiring or holding Grupo Mexico shares.

Some of the ESG assessments in which Grupo México participates include:



*SAM Corporate Sustainability Assessment*, the most rigorous and comprehensive ESG assessment in the market. Since 2016



*Carbon Disclosure Project (CDP)* evaluates Grupo Mexico's climate-related strategy and performances. Since 2016



*Corporate Human Rights Benchmark (CHR)* - Since 2019





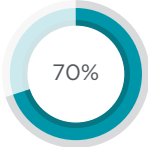
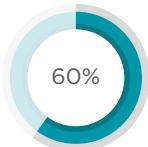
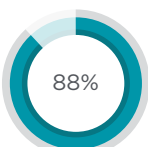




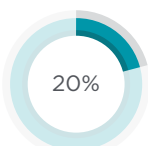
Grupo México will increase the use of renewable electricity in order to reduce the environmental footprint resulting from the company's power consumption.



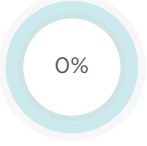
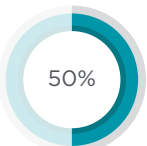
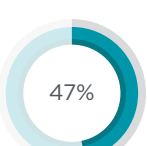
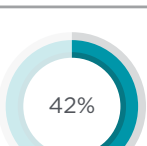
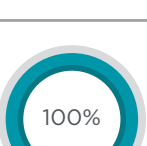
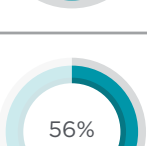
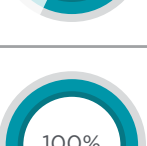


# OUR EFFORTS TODAY ARE OUR COMMITMENT FOR TOMORROW

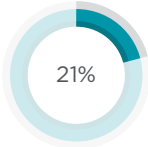
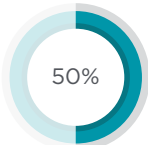
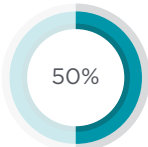


## Corporate goals

Grupo México set in 2018 **corporate sustainable development goals to be achieved by 2022**. These targets demonstrate the company's commitment for improving continuously our sustainability performances and contribute to the United Nations Sustainable Development Goals (SDGs). We are continually evaluating and adjusting these targets.

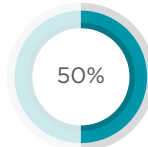
Goal	Status	Comments
<b>Human Rights</b>		
		 
1. Develop programs to promote respect for human rights both within Grupo México and with our main suppliers.		Grupo México published our General Human Rights Policy in 2019. We also began a review of the internal policies and procedures related to protecting human rights to identify and address gaps, and to design initiatives that will be implemented in 2020.
2. Institutionalize the process for identifying and responding to the indigenous communities near our Mining Division and Infrastructure Division operations.		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 in adherence of current law, the mechanism for which will be the Indigenous Communities and Peoples Action Protocol.
3. Implement a grievance mechanism for our stakeholders neighboring our Mining Division and Infrastructure Division operations.		The Community Grievance Mechanism is currently in operation at 14 Mining Division communities in Mexico and 4 in Peru. We are preparing to launch this system in the United States and in the Infrastructure Division.
<b>Community development</b>		
		 
1. Invest at least 2.5% of net earnings in projects that contribute to the United Nations Sustainable Development Goals.		Approximately 3.0% of Grupo México's net earnings were allocated to investments in corporate social community projects that contribute to the SDGs in the communities where we operate. If we also consider our social, environmental and health and safety projects, this figure rises to over 20%.
2. Ensure that all company-sponsored schools achieve higher academic results than their respective national averages.		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.
3. Implement an institutional program that supports the development of small and medium local suppliers of the Mining Division in Mexico and Peru.		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 value chain.

Occupational health and safety		
		 
1. Zero fatal accidents.		We were unable to meet this goal as several fatalities unfortunately occurred in 2019. Grupo México is working to strengthen our prevention and training programs to achieve the goal of zero fatal accidents.
2. Reduce the injury frequency rate of our employees and contractors by 25% in the Mining Division and 15% in the Transportation Division.		The incident rate increased by 14.8% in the Mining Division, while the Transportation Division reduced its incident rate by 21%.
3. Implement a Behavior-Based Safety System in 75% of the Mining Division business units.		47% of our mines had a behavior-based system in place in 2019.
4. ISO 45001 certification at all Mining Division business units.		All our mines are working to align their health and safety management system to ISO 45001. The overall progress is estimated to 42%.
5. Provide preventive health programs to 70% of our Mining Division personnel exposed to non-occupational health risks.		83% of personnel participated in preventive programs in 2019, accomplishing the goal.
6. Implement a comprehensive traffic management plan at all open pit mines.		Overall progress estimated to 56%.
7. Install equipment at 25 level crossings to reduce railroad accidents in urban and rural areas.		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> .



Environmental management		
1. ISO 14001 certification for all our Mining Division business units.		Four business units are certified (21% of the total). All other units are preparing implementation plans.
Water		
1. Update the water baseline assessments 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 determine the next actions to take.
2. Systematically monitor our operations and impacts on the basins and aquifers in high water stressed areas that supply the Mining Division.		Fourteen of our mine operations in Mexico, the United States and Peru <sup>1</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.
Biodiversity		
1. Update the biodiversity baseline assessments at all Mining Division business units.		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.
2. Guarantee the production of 5 million trees per year and join efforts with reforestation organizations.		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 Mexicanos Sembrando program.

1. 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. It is worthy noting 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.

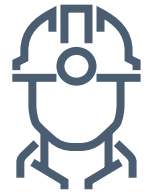
Climate change		
1. Update our climate-related risks and opportunities assessment.		Emissions resulting from Grupo México's value chain (scope 3 emissions) were calculated for the first time in 2019, in order to identify new climate-related risks and opportunities. The next step is to update our analysis of climate-related transitional risks and opportunities to enrich our corporate climate change strategy.
2. Increase the use of renewable electricity by 10% throughout the organization.		18.6% of the electricity consumed by Grupo México in 2019 came from renewable sources, which is well over the 10% goal established initially. Our new target for 2022 is to reach 25%.
3. Reduce the intensity of the Mining Division's greenhouse gas emissions by 5%.		The intensity of emissions was significantly reduced in 2019 compared to 2018, achieving the initial goal. Our new target for 2022 is to reduce by 5% our 2019 emissions intensity (2.57 tCO <sub>2</sub> e per ton of copper equivalent produced).
Mine waste (tailings)		
1. Implement a policy and standards for the safe management of mine waste deposits.		Our <i>General Polity of Tailings Systems</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.
2. Update the safety assessments for all active mine waste deposits.		A specialized independent firm reviewed the general safety conditions at all our active tailings storage facilities in Mexico and Peru, and at 50% those located in the United States.
3. Standardize the operation, maintenance and monitoring manuals for all mine waste deposits.		All our tailings storage facilities in Peru and the U.S. have standardized maintenance and monitoring manuals.



## ENGINE FOR DEVELOPMENT

### Economic Spillover

Our workforce in 2019:



**30,475**  
COMPANY  
EMPLOYEES

**121,900**  
INDIRECT JOBS

Our collective efforts generated an economic spillover of **US\$8.668 billion.**



**3.5% INCREASE**  
OVER 2018.



Four indirect jobs with suppliers and services are created for each direct job at Grupo México.

#### Economic value generated and distributed

US\$ Millions	2017	2018	2019
<b>Economic Value Generated (EVG)</b>			
Revenue	9,978	10,495	11,021
<b>Economic Value Distributed (EVD)</b>			
Operating costs	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	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>



**85%** of our 13,300 suppliers are local, driving the local economies.



Our **Forjando Futuro** (Forging Futures) program will certify technical and entrepreneurship skills for 1,437 people to be eligible for hiring at the Tia Maria and Michiquillay projects in Peru, and also at Buenavista Zinc and the Lime Plant in Mexico.





The number one goal at all our operations is ZERO ACCIDENTS. Our OHSAS 18001:2007 Occupational Health and Safety management systems are being migrated to ISO 45001:2018 in all operations.

## A SHARED RESPONSIBILITY

### Occupational Health and Safety

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

**We are committed to:**



Maintaining safe and healthy workplaces.



Consolidating a culture of prevention in occupational health and safety.



Identifying and effectively controlling our critical risks.

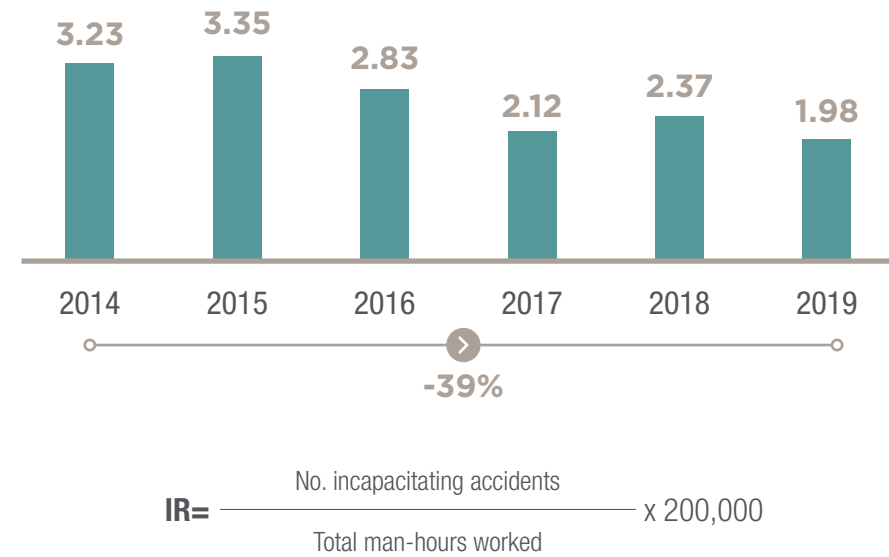


**We have invested more than US\$744 million in the last five years** to improve our productive processes, optimize our worksites, and to train and protect our personnel.

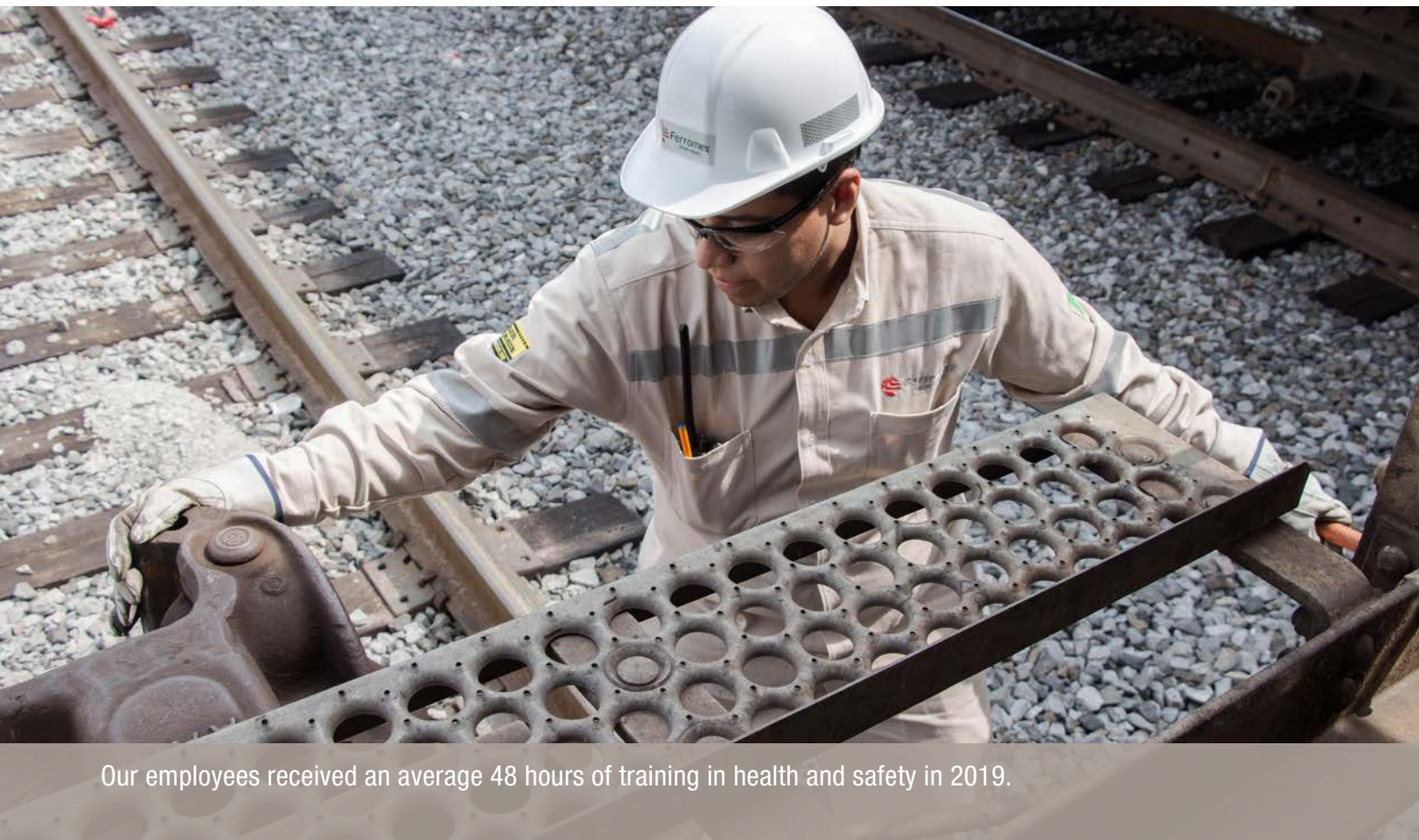


## TRANSPORTATION DIVISION

**Incident rate (IR)**  
Transportation Division  
2014-2019



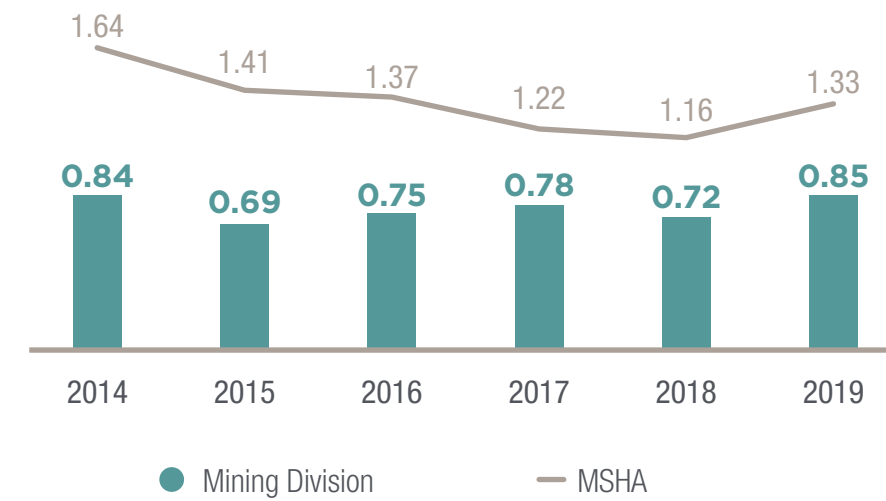
We have reduced our accident rate by **39%** in the last five years.



Our employees received an average 48 hours of training in health and safety in 2019.

## MINING DIVISION

**Incident rate (IR)**  
Mining Division vs. US Mine Safety  
and Health Administration (MSHA)  
2014 - 2019



Our accident rate was **36% below the average for the mining industry in the United States** in 2019.

Twelve of our business units are Occupational Health and Safety Management (OSHAS) 18001:2007 certified and our goal for 2022 is for all our business units to be ISO 45001 certified.

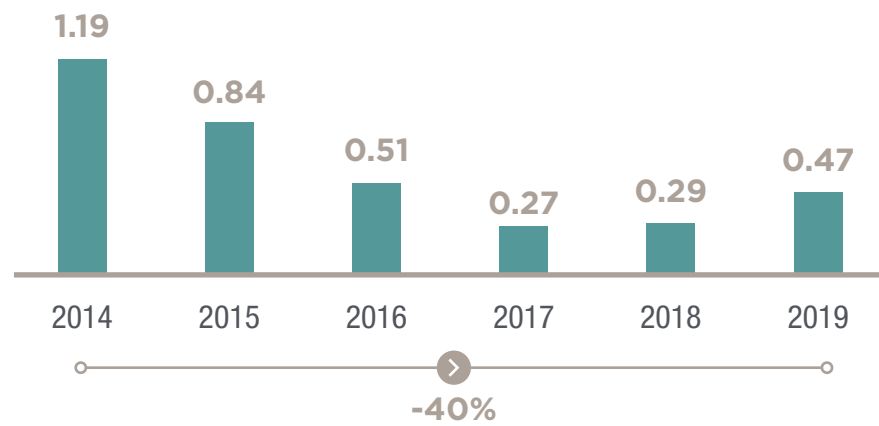
The Cámara Minera de México (CAMIMEX) recognized our La Caridad mine, the Copper Rod Plant and the Copper Electrolyte Refinery at our Processing Complex as having the lowest accident rates in the industry.





## INFRASTRUCTURE DIVISION

**Incident rate (IR)**  
2014-2019



We have reduced our accident rate by **40%** in the last five years.



Our subsidiary México Generadora de Energía ended 2019 with **more than six years without a work-related injury.**



## A SHARED RESPONSIBILITY

### Mine Safety Cells



We have been organizing a company-wide forum since 2011 to showcase innovative safety projects created by our collaborators. Teams known as Safety Cells present their initiatives to improve safety and work conditions. The best projects receive funding and are implemented.

The 3 winning projects in 2019 were:

1. **Processing Complex (Esqueda, Sonora):** “Reducing personal health and safety risks while washing press filter fabrics.”
2. **La Caridad Mine (Nacozari, Sonora):** “Monitoring vibrations and temperatures in real time, front loaders.”
3. **Zinc Refinery (San Luis Potosi, SLP):** “Fall arrest device for cathode transportation clamps.”



Our rescue crews receive ongoing specialized training to respond to any emergency.

## Mine Rescue Crews

Made up of highly trained volunteers to respond to emergencies.



The rescue crews are qualified to provide first aid and to respond to different emergencies, including fire, chemical spills, collapses inside the mine, and search and rescue.





All our open pit mines have a Traffic Management Plan to continuously improve safety for vehicle and pedestrian traffic

## A SHARED RESPONSIBILITY

### Occupational Health and Safety - Traffic Management Plan

This plan outlines the basic requirements to ensure the safe operation of vehicles at our open pit mines.

After analyzing the traffic zones, improvement projects are developed to reduce the risks associated with hauling and unloading ore.



## Employee surveys

Our collaborators rank occupational health and safety as a top priority for the organization.



## A SHARED RESPONSIBILITY

The railroad in urban areas.

We are committed to the wellbeing of our collaborators and the communities through which the train passes. We are working to promote a positive interaction between the railroad and the community, through different prevention actions and our level crossing signaling program.

We have invested US\$10.5 million to improve safety, installing signals at 52 level crossings in the last two years, as part of our **three-year program to signal 67 crossings**.

These crossings are NOM-050-SCT2-2017 compliant and meet the strictest technical standards.

Thanks to our *Cuidado con el Tren* (Watch Out for the Train) campaign and our actions to promote a culture of road safety, we have:



Reduced accidents at level crossings by **29% in the last three years**.



Improved traffic and reduced accidents to **0 in 24 districts on our railroad network**.







The youth orchestra initiatives in Nacozaari and Cananea in Sonora, Mexico, contribute to the social benefit of the 9,607 activities held in 2019, reaching 178,000 people through cultural, health, sports, education and environmental topics and events, with the support of 16,296 volunteers, three out of every 10 of whom are Grupo México employees.

## DEVELOPMENT WITH PURPOSE

### Local communities

The Community Development department **strengthens the company's operations**, improving the quality of life of communities, through **17 Casa Grande community centers in Mexico** and **15 Casa Nuestra community centers in Peru**, providing artistic, academic, physical and volunteer activities for children, youth and adults under a model of co-responsibility and also economic and human development.

In the United States, our Mineral Discovery Center **communicates** the importance of mining, **educates** through guided visits and interactive exhibitions, and **preserves** a part of the mining history of Arizona and the region.



The company voluntarily **invested US\$29 million in infrastructure and services to strengthen social wellbeing.**

Investment	Number of projects	Invested in 2019
Infrastructure	41	US\$16.6 M
Services	227	US\$13.2 M
<b>Total</b>	<b>268</b>	<b>US\$29.8 M</b>



## CHAMPIONS OF DEVELOPMENT

### Flagship projects

Grupo México operates the following **flagship projects focusing on sports, productivity and culture.**



The **Grupo México swim team** in Cananea, Sonora has **24 swimmers**, noting that one swimmer qualified to join the Sonora State Team and compete in the National Winter Championship.



In Peru, we organized **seven soccer tournaments** in which **350 boys and girls** participated. We also organized a special tournament for mothers and their children in Torata, Peru and Cananea, Mexico with 200 participants in both countries.



More than **656 projects** have received grant funding **since 2009** in Mexico and Peru, representing a social investment of **US\$6.6 million** through 66 open invitations to submit project proposals.

There will be **eight invitations to submit project proposals in Mexico and six in Peru in 2020**, focusing on **social, environmental and productive** aspects to directly impact 40% of the population at each site.

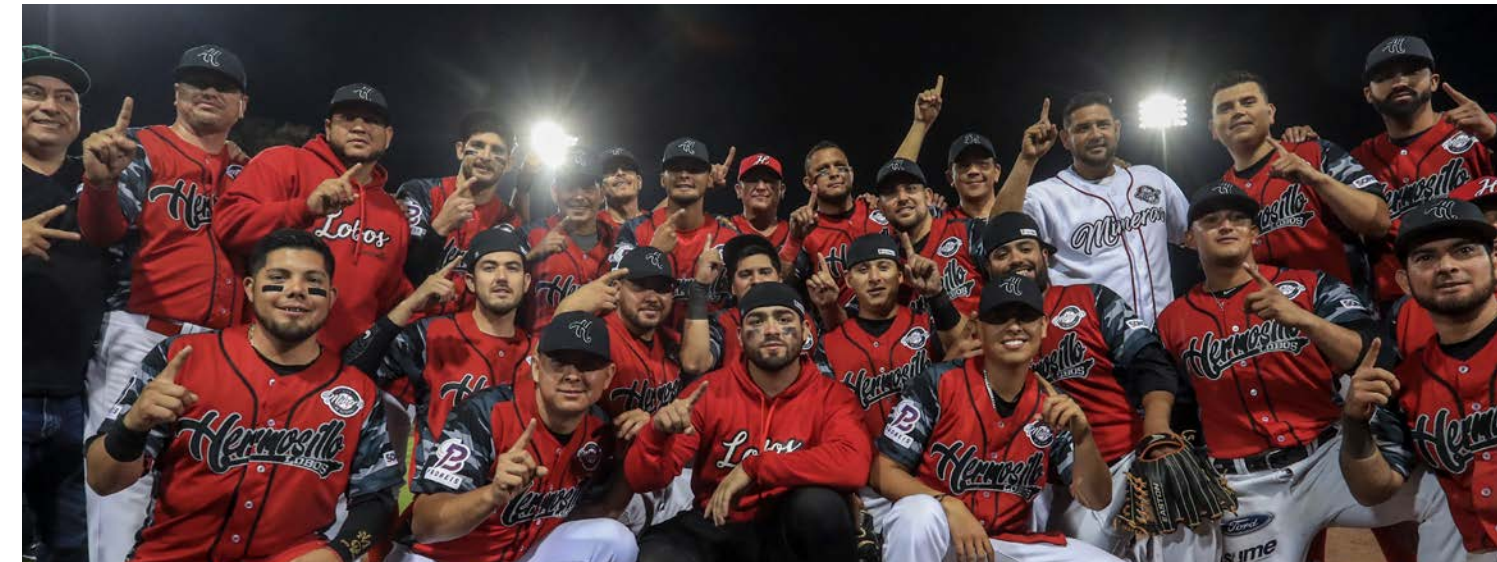


We currently have **two youth orchestras** in **Cananea and Nacoziari** in Sonora with **325 members**, **80%** of whom improved their academic performance.

Our **goal for 2020** is to form **four youth orchestras in Mexico and Peru**, involving **800 youth eight to 19 years of age**. In Peru, the tenor Juan Diego Flórez will participate in the project.



"To our surprise since our daughter 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." Mother of a member of the youth orchestra.



The Grupo México Los Lobos team won the Mining Baseball League, which brought together 1,700 players from the industry, including collaborators and the community.



Casa Grande ran 350 sports programs in 2019.



"My project became a reality with seed capital from Grupo México. I opened a bakery, creating three jobs in my Nacoziari". Grant recipient.



## SCHOOLS WITH A MINING VOCATION

Schools

We have **11 schools** in Mexico and Peru.



**300 teachers for 3,698 students.**



**78% of the student body are members of our miner families.**



**100% of our schools achieved academic results above the national average and 60% above the regional average in language (Spanish) and mathematics\*.**



Three out of four parents are satisfied with the education their children receive at Grupo México schools.

\*Subjects that are globally considered basic to support learning in all other subjects.



## CONTINUITY OF THE EDUCATION SERVICE DURING THE PANDEMIC

Through 260,814 classes, assessments and learning activities, 99% of our students have been participating in distance learning during the COVID-19 crisis.

### 2022 VISION



#### Academic achievement

100% of our schools reporting results above the regional and national averages.



#### English classes and certification

100% of graduates having English language competency certificates.



#### Teacher training

100% of teachers having current professional qualifications, according to official standards.



#### Comprehensive health awareness

80% of the student body being at their ideal weight, thanks to our nutrition and physical activity programs.



#### Mental health care

100% of staff and students participating in an anti-bullying program.



#### Students with special needs

90% of students will improve their academic performance.





“El Pinacate preserves the history of the building while offering a new way to enjoy it.”  
Resident of Naco.



“Tamosura is a paradise in Cananea, my daughter says, with spaces to hang out, exercise, rest and have fun.” Resident of Cananea.

## INVESTMENTS THAT TRANSLATE INTO QUALITY OF LIFE

Tamosura and Pinacate: Recreational spaces, services, sports and health.

Offering top level services, like Alboa, Cinemex, Acuática Nelson Vargas, 100-room Hotel City Express and Súper del Norte.



**7,500 m<sup>2</sup> of green spaces**

3 courts for sports and a playground

1.5 km jogging track

Sculpture park with references to mining



**We foster entrepreneurship** and economic development through **39 local businesses.**



Convention center, hosting the Sonora Mining Association Mining Seminar with 3,500 attendees.

**Tamosura and Pinacate** promote family and community events, noting in particular: **Verano en Familia** (Summer with the Family) with a mix of theater, dance, music and audiovisual activities, **Alas y Raíces** (Wings and Roots) diversity through art event, and **Foro Juvenil** (Youth Forum) with different conferences for teens. **More than 5,000 people participated in these events in 2019.**

**US\$39 million invested in the construction of Tamosura and Pinacate.**

90% of the annual operating costs are covered with self-generated revenue.



**MORE THAN 800,000 VISITORS EACH YEAR**



## BUILDING TRUST

Tia Maria

We have been **operating four community centers since 2017, under our “Casa Nuestra” model**, offering programs in co-responsibility with farmers, schools and health institutions, gaining acceptance for the Tia Maria mine project in Islay province, Peru, achieving the following results:



**Linkage and training for 20% of the farmers in Tambo Valley (500 producers).**



The **Forjando Futuro (Forging Futures)** program **trained 57 youth in welding** and **34 youth completed internships** with Southern Peru.



Our *Matemática y Comunicación para Todos* (Mathematics and Communication for All) program is operated in **coordination with the teachers’ union at nine schools in Tambo Valley**, with 1,000 participants in the program.



In partnership with Health Clinics in the province of Islay, we have sponsored **53 health campaigns** since 2017, **delivering 8,250 medical services**.



Technical files have been compiled to **build two health clinics in Islay Province**, representing an investment of nearly **US\$1 million**. These works are underway.



One out of every five Tambo Valley farmers participates in our training programs, provided by the Community Development team.



More than 130 human development and productive activities were held in 2019, with 19,000 participants (there are 52,034 inhabitants in the province of Islay). Among these events, of note is the first *Carrera de Colores y Valores* (Colors and Values Run), in which more than 1,000 people participated.



An **agreement** was signed with the **Ministry of Housing to finance the studies for a Comprehensive Water and Drainage Project** for the province of Islay, representing an approximate investment of US\$6.5 million.



Currently, 150 volunteer youth are involved in environmental awareness campaigns, including: *Yo Amo mi Playa Limpia* (I Love My Clean Beach).



There are four Community Committees made up of 32 local leaders. **Since 2017, 95 projects have been implemented** and generate a positive impact on more than 10,000 people in the province of Islay.



## BUILDING THE BASE FOR LONG-TERM CO-RESPONSIBILITY

### Michiquillay

Our **Casa Nuestra** co-responsibility engagement model reaches **25,000 people in 16 rural communities.**

We are working on community anchoring with more than 2,500 families, through:



- 2 committees of community leaders
- 334 volunteers
- 435 local women
- 51 organizations connected, including the education sector

The community also co-participates in building human and social capital:



138 community mentors on selected projects, strengthening 28 local organizations.

### SOCIAL FUND



We **contributed US\$12.5 million to the US\$135.3 million Michiquillay Social Fund.**

**Casa Nuestra brings to fruition the social investment strategies adding value and sustainability to the projects,** receiving additional resources from the Peruvian government.



The “Amautas Mineros” program is held at schools in the area of influence of the Michiquillay project. This program instills in youth the importance of mining for development, raising awareness among 2,260 middle school students on the direct benefits of formal mining, becoming permanent allies of the mine project.

### COMMITMENTS



Complete the Environmental Impact Study to start the exploration stage.



Negotiate SOCIAL AGREEMENTS with the local farming communities, as required under contract with the Peruvian government.





Casa Grande Lidxinu' ("Place for Everyone" in Zapotec) volunteers at the El Retiro Wind Farm in La Ventosa, Oaxaca.

## RESPECT FOR PACE AND NEEDS

Human rights and indigenous communities

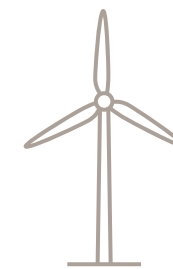
### Human Rights

**In 2019, Grupo México was the first mining company in Mexico to publish a General Human Rights Policy.** Over 6,000 collaborators have received training in this new policy.

Four cases of discrimination were reported via the reporting line in 2019, all of which were addressed and fully resolved.

### Indigenous Communities

**We are committed to building relationships with the indigenous communities** in the places where we operate:



- El Retiro Wind Farm, La Ventosa, Oaxaca - Zapotec
- El Arco Project, Guerrero Negro, Baja California - Cochimi
- Mission Mine, San Xavier, Arizona - Tohono O'odham
- Chepe Express Tourist Train, Sierra Tarahumara, Chihuahua

We **invested US\$9 million in serving indigenous communities** in Mexico in 2019: Casa Grande programs in Juchitan and Guerrero Negro, and the Juchitan Hospital project.

In the **Sierra Tarahumara, the passenger ticket subsidies the Transportation Division offers** indigenous peoples totaled **US\$970,000**. Added to this, we invested US\$390,000 in social programs and donations for these communities.

In the United States, ASARCO has invested US\$29 million since 2008 in the remediation of the tailings dams situated on lands leased from the Tohono O'odham.

**We operate in adherence of the United Nations Declaration on the Rights of Indigenous Peoples and International Labor Organization Convention 169, and in 2020, we will have a Policy on Respect for the Rights of Indigenous Peoples and Communities.**



## THE VALUE OF RESPECT AND LISTENING

### Community Grievance Mechanism

We rolled out our Community Grievance Mechanism in the Mining Division in Mexico and Peru this year. 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.



"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.



**168 reports**, 123 of which were related to the company.

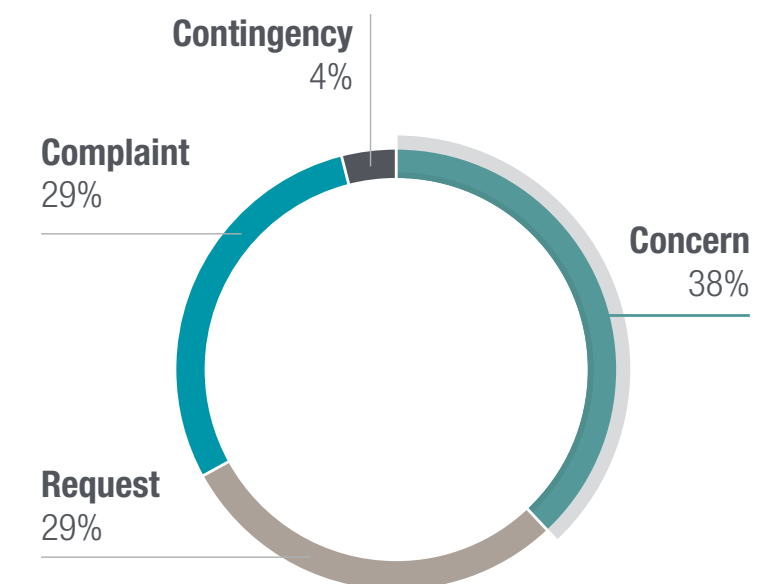


**99% of cases resolved** with an average resolution time of **14 days**.



The Community Grievance Mechanism was developed in consultation with the United Nations Office of the High Commission on Human Rights in Mexico.

### Cases involving the company, by level







Ophthalmology car on the Health Train, providing eye exams and diagnoses, and delivering prescription glasses.

### IN 2019, DR. VAGON, THE HEALTH TRAIN:



Delivered **107,943 free prescription medications**



Served **27,840 patients** and provided care for **88,016 patients with diabetes**



Supplied **16,376 prescription glasses** and **5,782 physical therapy devices free of charge**



Provided **40,859 scans** and **9,265 mammograms** in **22 states**, reaching **226 communities**

## THE HEALTH TRAIN

### Dr. Vagon

The **Dr. Vagon** program takes free healthcare services to vulnerable communities, **providing more than 130,000 services each year.**

Dr. Vagon, the Health Train, **celebrated its fifth anniversary** in 2019. Thanks to the operational support of Grupo México Transportes 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 **83,000** kilometers to take health services to those most in need.

#### The Health Train has:

- 17 cars
- 64 healthcare professionals on board
- 5 cars outfitted as doctor's offices
- 1 operating room
- Dormitories and a cafeteria
- 1 movie theater
- Lab testing, medical consultations and outpatient surge



## MINING AND HEALTH, INSEPARABLE ALLIES

### Response to COVID-19

Grupo México acted quickly, focusing our efforts in two areas:

1. **Protecting the health of our employees and their families.**
2. **Increasing the capacities of the public health services in the regions and communities where we operate.**

We created a team at the highest level of the organization to define a COVID-19 Protocol and to supervise the actions taken.



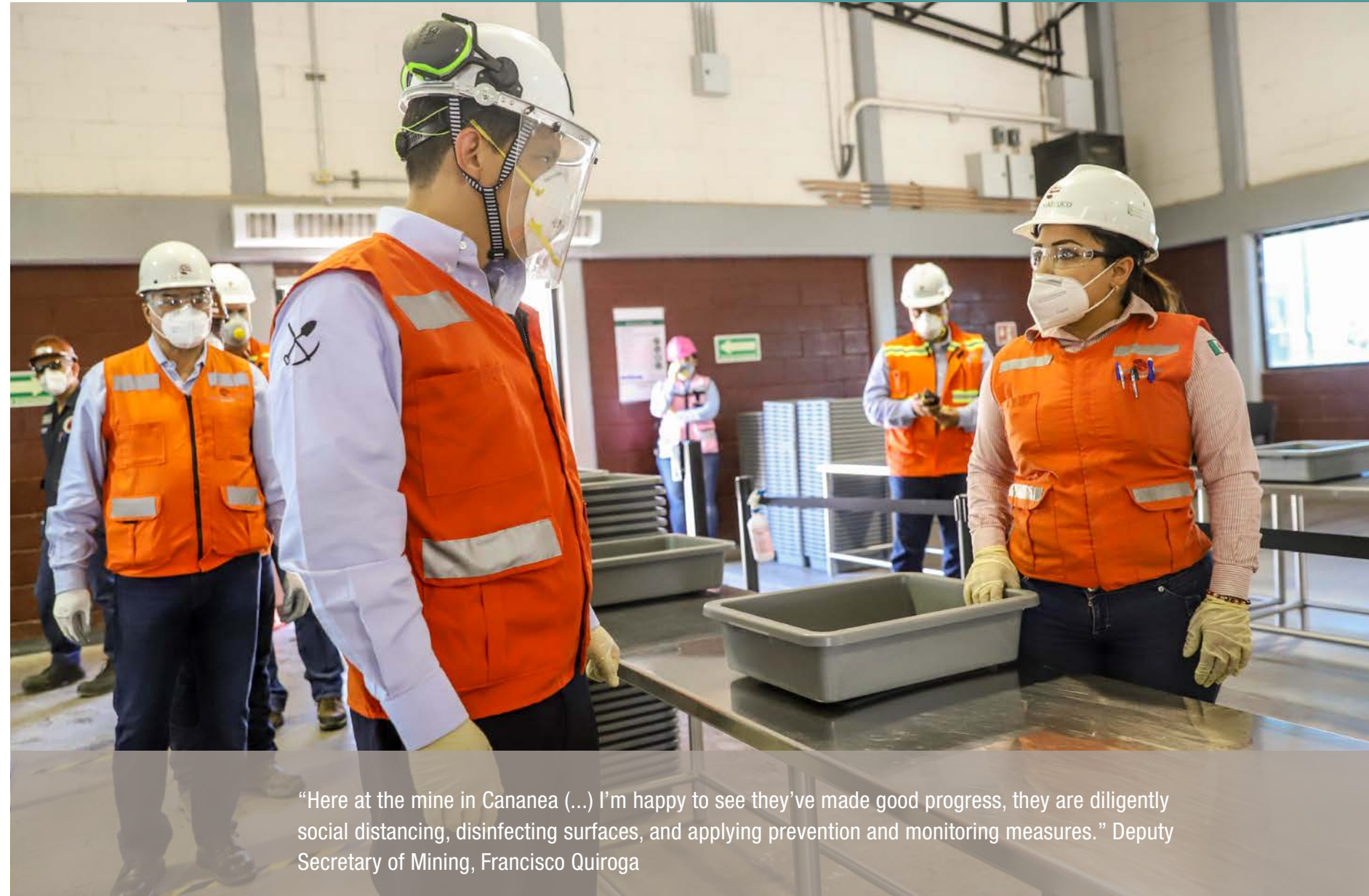
#### PREVENTION

- Social distancing and hygiene measures in the workplace
- Awareness campaigns
- Checkpoints at the access points for our neighborhoods and company premises



#### DETECTION

- Questionnaires and screening for employees and their families
- Tracking protocols



“Here at the mine in Cananea (...) I’m happy to see they’ve made good progress, they are diligently social distancing, disinfecting surfaces, and applying prevention and monitoring measures.” Deputy Secretary of Mining, Francisco Quiroga



**Allied with the Community**, identifying specific needs and working with the government to support the public health and citizen services agencies.





As part of our “Supporting others is caring for everyone” thinking, Grupo México Foundation has reached 17 Mexican states and 5 regions in Peru during the COVID-19 pandemic through alliances with the health sector at all levels of government and frontline agencies, like the Red Cross, Civil Protection, Public Safety and the National Guard.

**Grupo México Foundation leads the list of 28 Mexican companies recognized for their social responsibility and investment in response to the health crisis,** according to the corporate social responsibility and sustainability communication agency ExpokNews.



**Grupo México has donated US\$26 million in supplies in Mexico and US\$5 million in Peru.**

### Mexico

- 147 mechanical ventilators and 501 non-invasive ventilators
- More than 80,000 food baskets
- 60,000 prepared meals
- 950 additional COVID beds
- Equipment for 3 hospitals in Mexico City, Monterrey and Guadalajara
- Donation of a hospital in Juchitan, Oaxaca
- 486,000 medical kits
- More than 60,000 liters of hand sanitizer
- 7 temporary COVID clinics with 83 beds and 22 full-time healthcare professionals
- 450,000 medical supplies
- Free 24 hour hotline providing medical, psychological and employment support
- 49 municipalities nationwide with disinfecting services
- Active participation on the municipal health committees advising on strategies to reduce mass transmission of the virus

### Peru

- 18,000 personal protection kits
- Equipment for 1 molecular laboratory
- 84,000 quick tests
- 240,000 liters of oxygen
- 7 mechanical ventilators and 1 non-invasive ventilator
- 112,000 medical supplies

### Community co-responsibility:

- 254 volunteers in Mexico and Peru have made more than 36,000 facemasks



## SHARED RESOURCE AND PART OF THE SOLUTION

### Water

Water is an essential resource for mining, communities and ecosystems.

Population growth and climate change exacerbate the water stress that characterizes the desert regions where most of our mines are located.

Grupo México looks after this resource through a three-pillar strategy:



**1. Protect water quality.**



**2. Improve efficiency in water usage.**



**3. Collaborate with other players in managing the catchments where we work.**



The different mineral processing processes produce tailings, containing water and solids that are passed through thickeners where most of the water is recovered.



We use the latest technologies to increase water recovery and reuse in our processes, reducing the consumption of fresh water by maximizing the use of recycled water.



**We used 6.6% less fresh water in 2019 while copper production increased 12%.**

This is equal to approximately 4,600 Olympic-sized swimming pools.



**73% of the water consumed was recycled.**

A 3% increase over 2018.





**18.6%** of the total electricity consumed by Grupo México in 2019 came from **renewable sources** (hydroelectric and wind, primarily).

Our target is to reach 25% by 2022. This will be achieved with the new 168 MW wind farm project *Fenicias* being developed in Mexico.

## TACKLING THE CHALLENGE

Climate change



### VISION

To position Grupo México as an agent of positive change, contributing to national and international greenhouse gas emission reduction targets



### STRATEGY

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.



## TACKLING THE CHALLENGE

Climate change

### OPERATING EMISSIONS

The operating emissions result from the consumption of fuel (scope 1) and electricity (scope 2).

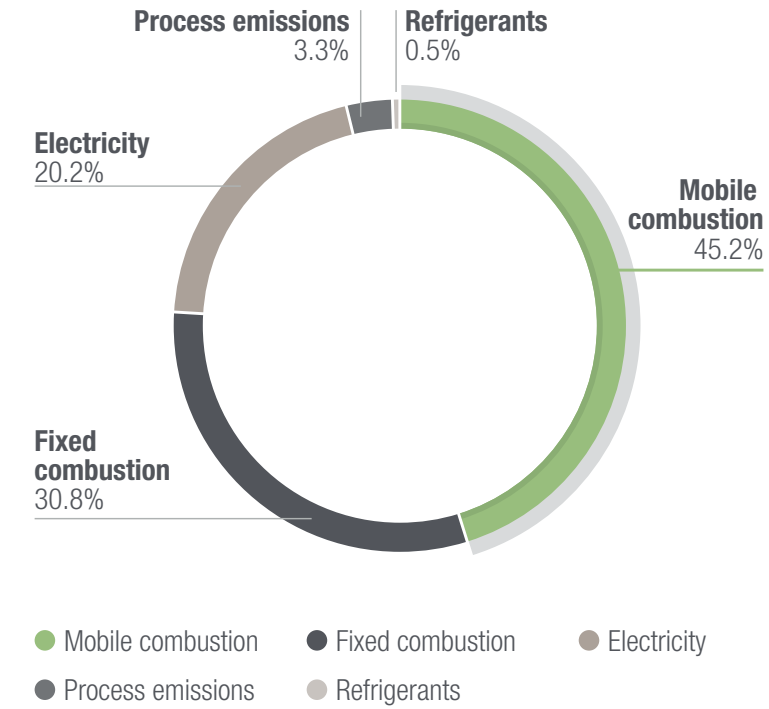
Division	2019 (millions tCO <sub>2</sub> e)		Operating Emissions
	Scope 1	Scope 2	
Mining	1.99	1.27	<b>3.26</b>
Transportation	1.46	0.02	<b>1.47</b>
Infrastructure	1.63	0.00	<b>1.63</b>
<b>Total</b>	<b>5.08</b>	<b>1.29</b>	<b>6.37</b>



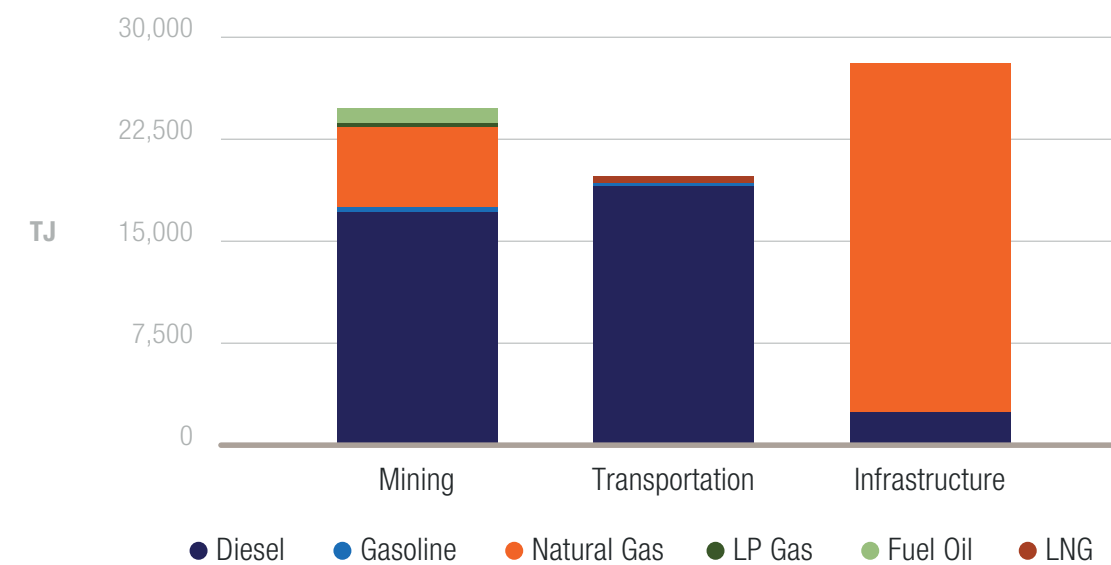
**Fuel consumption accounts for 75% of Grupo México's operating emissions.**

Diesel and natural gas represent, respectively, 52.5% and 44.3% of our fuel consumption.

### Operating emissions by category



### Fuel consumption by Division (terajoules)



**42%** of the electricity consumed **was provided by the Infrastructure Division's La Caridad** combined cycle power plants. This power was 18% cleaner than that provided by the Mexican grid in 2019.



**Considering all our renewable energy and energy efficiency projects, we reduced our emissions by more than 774,000 tons of CO<sub>2</sub> equivalent in 2019, equal to taking 167,000 cars off the road.**

This represents 12% of the operating emissions of Grupo México in 2019.





## TACKLING THE CHALLENGE

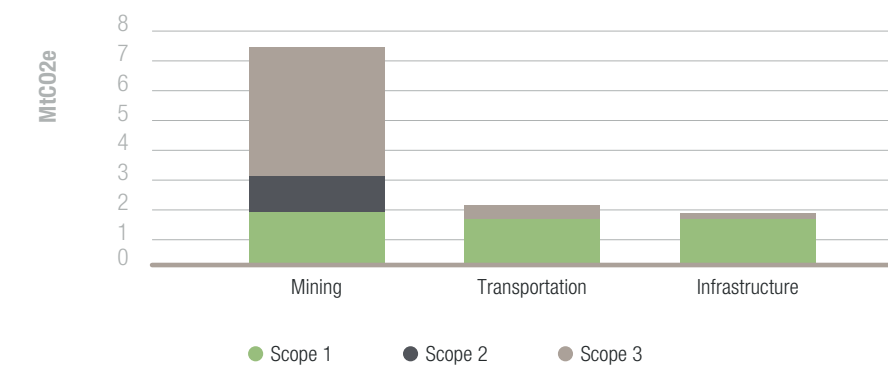
Climate change

### EMISSIONS RESULTING FROM THE VALUE CHAIN (SCOPE 3)

The Scope 3 GHG emissions produced by the value chain were calculated for the first time in 2019.<sup>2</sup>

This helps us understand the scale of the indirect emissions occurring outside the boundaries of the organization, which is important for identifying potential emission reduction strategies to implement with our key clients, suppliers and collaborators.

#### Carbon footprint including the emissions from the value chain



Reporting scope 3 GHG emissions is an important step in providing transparent information aligned with the expectations of our stakeholders.

<sup>2</sup> 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 value chain.



#### Next steps

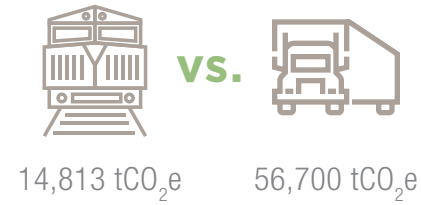
We are in the process of developing new emission reduction targets, and we also evaluate the possibility to implement new projects to mitigate our carbon footprint.



## TACKLING THE CHALLENGE

Climate change - Transportation Division

CO<sup>2</sup> equivalent emissions per million net tons-kilometer transported.



TRUCKING IN MEXICO RELEASES **3.8 times more GHG EMISSIONS** THAN THE RAILROAD.



Moving freight by railroad reduces the carbon footprint of entire value chains in different industrial sectors.



**39% of the electricity consumed by GMXT** IN THE LAST 6 YEARS CAME FROM RENEWABLE SOURCES.



Grain train in Colima, Mexico. Our trains can carry up to 12,000 tons of freight.



Thanks to our consumption of renewable energy, **GMXT (the company's Transportation Division) has reduced its GHG emissions by 36,570 tCO<sub>2</sub>e in the last six years.**

### GMXT initiatives to reduce emissions

2020-2023

- Implement fuel management systems for diesel savings in all locomotives.
- Install specialized software to improve the efficiency of our locomotives.
- Increase locomotive power in order to move more freight with less fuel.
- Increase the use of AC locomotives that consume less diesel.



**FROM 2020 TO 2023 WE WILL REDUCE OUR EMISSIONS BY 193,852 tCO<sub>2</sub>e**

**Thanks to our energy efficiency projects, we will reduce our diesel consumption by 125,000 m<sup>3</sup> in 2023.**





New tailings dam - Buenavista del Cobre. The project was nominated by The Mining Journal as “Innovation leader” for our “downstream” construction method with borrow material and filtering curtain.

To ensure safety in the face of Climate Change, the dam was designed to hold 11 times the water produced by a category four hurricane.



Dam 7- La Caridad Mine. Our tailings deposits exceed the current national norms, guaranteeing the dam’s capacity and stability to withstand extreme storms.

Built applying the “downstream” method with borrow materials, this form of construction guarantees the greatest safety.

## ENGINEERING THAT GENERATES CONFIDENCE

Mine waste (tailings)



### OUR COMMITMENTS

- Build tailings dams using the safest method.
- Constant monitoring of the dams.
- Prepare to respond to emergencies.
- Have closure plans in place.



### TAILINGS DAMS IN BUENAVISTA DEL COBRE AND LA CARIDAD

- This new type of tailings dam involves different structural safety factors to mitigate geological, earthquake and hydrological risks.
- Built with borrow materials to ensure the stability of the curtain.
- The “downstream” construction method provides additional slope support and prevents the possibility of slides in static (normal) and dynamic (earthquakes, heavy rainfall, etc.) conditions.
- These filtering dams aid in the recovery and reuse of water in our mining processes.





**GrupoMéxico**