



MINERA SAN CRISTÓBAL S.A.

BUILDING
A
Future



SUSTAINABILITY REPORT 2019

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SUSTAINABILITY REPORT 2019

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WE VALUE YOUR COMMENTS (102-53)

We value our stakeholders' opinions regarding our 2019 Sustainability Report. For more information, questions or comments, please contact:

Patricia Dalence R.

Superintendent of Corporate Communication

patricia.dalence@minerasancristobal.com

info@minerasancristobal.com

(591-2) 262-3400 ext. 2444

www.minerasancristobal.com



With an investment of US\$ 1.8 billion, we started operations in 2000 in the department of Potosí, Bolivia.



We are considered to be the main mining venture in Bolivia and among the main open pit mines in the world.



Our zinc-silver and lead-silver concentrates are mainly exported to Asia and Europe.

ODS MSC

Zinc-silver concentrate production
(thousand tonnes)



Lead-silver concentrate production
(thousand tonnes)



MSC has benefited the country and demonstrated the potential to develop responsible mining in Bolivia.

1 About Minera San Cristóbal

(102-1)

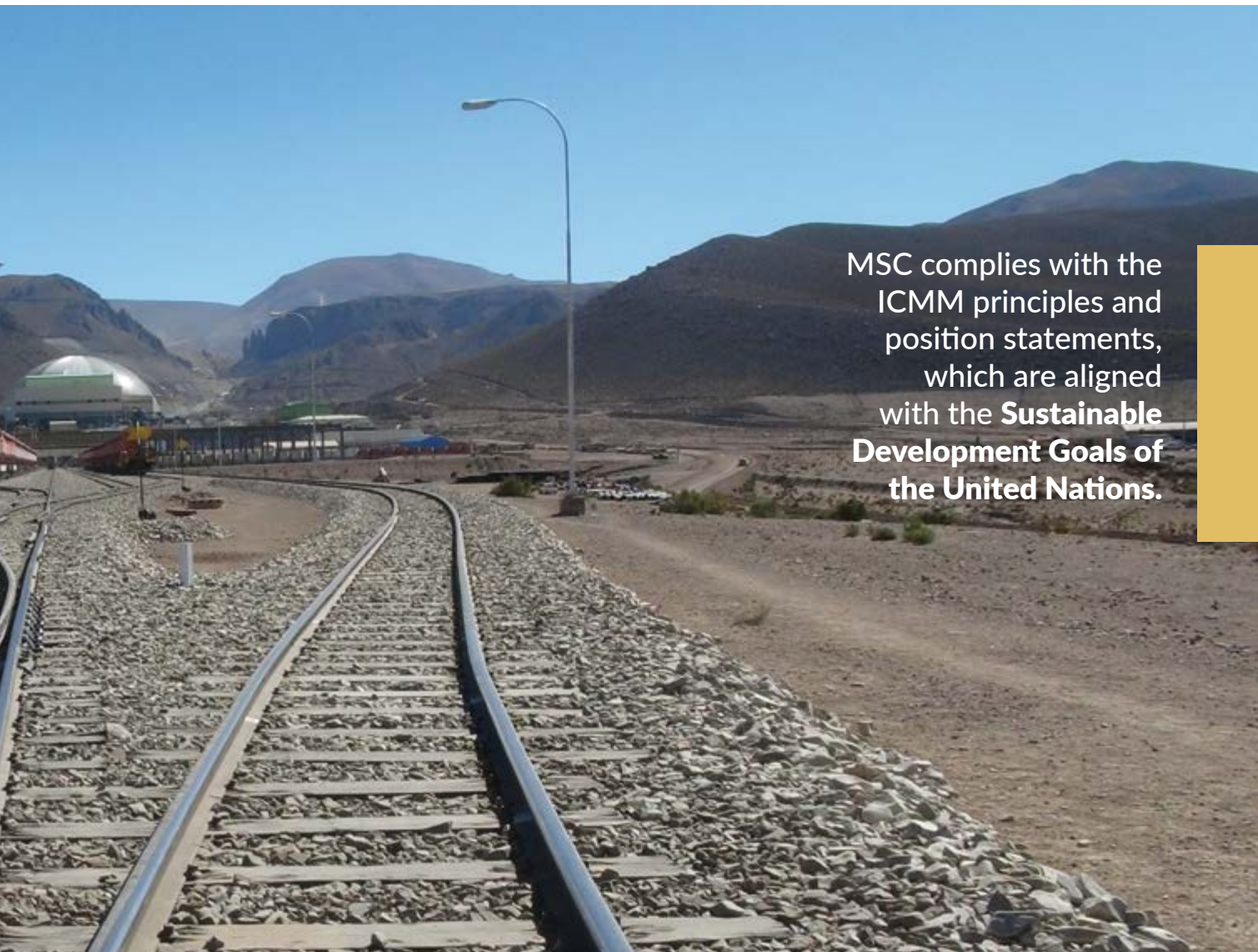
1.1 Message from the President and Vice President & General Manager (102-14)

Dear readers:

We are pleased to present our fifth annual Sustainability Report detailing the progress made during 2019 on our path to maintaining and continuously improving a responsible and sustainable mining operation that benefits all Bolivians and other stakeholders. Minera San Cristóbal's commitment to sustainable development is ingrained at all levels of the company and is managed through our business processes and systems, our Business Management System.

Investments in projects to support community development totaled US\$ 4.7 million in 2019. These projects were primarily focused on health, education and infrastructure. Major projects included the contracting of an additional bay in the Lithium Substation to provide additional and more reliable electrical power to the communities, a financial contribution to the paving of the road from Puente Río Grande to Cruce Laguna Colorada, and a reverse osmosis water treatment plant to provide potable water to the community of San Cristóbal. As part of our planned yearly activities, we continue to maintain the primary access road from Uyuni to the border with Chile at an annual cost of approximately US\$ 1 million. We also support the communities of San Cristóbal and Culpina K with waste management, improvements of sanitary landfills, maintenance of electrical generators and costs of the electrical line power.

In the social area, we have provided scholarships to promising students from the communities to undertake postgraduate studies in Spain; we continue training and certifying entrepreneurs and local producers at the level of basic and assistant technicians within the alternative education program of the Ministry of Education of the Plurinational State of Bolivia.



MSC complies with the ICMM principles and position statements, which are aligned with the **Sustainable Development Goals of the United Nations.**

In 2019, we continued our efforts to improve our health and safety performance through preventive programs following the guidelines of OHSAS 18001 and other international standards in compliance with Bolivian regulations. We did not have any fatalities and did not experience any occupational health diseases during the year. We also achieved one of our primary strategic goals in that the safety performance of our contractors, and in particular local community contractors, reached a level equal to that of MSC and a significantly better rate than international rates for similar mines. This was achieved largely by taking direct control of training for high risk work activities and a detailed analysis of incidents to establish prevention oriented behaviors.

To improve the efficiency of our Emergency Response Unit, we installed a fire simulator dedicated to training of the Emergency Unit and the Volunteer Brigades. This new equipment contributes to the continuous improvement of our fire suppression tactics, enriching our knowledge of how fire actually behaves. Moreover, it is helpful to better respond to fire emergency events in our operational area, including adjacent communities. In August 2019, Bolivia was experiencing forest fires in the Chiquitanía region of the department of Santa Cruz that reached the level of a national emergency. Our Emergency Response Unit volunteered to assist in fighting the fires for a period of one week during this crisis.



Among our objectives for 2019 was improving our understanding and practices in the areas of Human Rights, biodiversity and climate change. Topics in which we had a relevant progress.

Our MSC health system continued to provide medical services and assistance to our employees and their dependents throughout Bolivia and to the communities within our region, with a strong emphasis on prevention programs. In 2016, we established the Health Plan 2016-2020 to develop initiatives aimed at contributing to the improvement of the health status and quality of life of the population of the communities of San Cristóbal, Culpina K and Vila Vila. They are based on the principles of equity, inclusion and opportunity that all people must have in accessing comprehensive and quality health services. We aim to generate a culture of self-care in health and healthy lifestyles. These programs focus on the population groups most at risk, such as children under five and school-age children, women of childbearing age and older adults. In this sense, in 2019 MSC continued with the plan of providing medical services to the communities every day of the year, with over 10,000 consultations.

At the national level, MSC paid 2018 taxes of US\$ 230.5M due in 2019 as well as advance tax payments of US\$ 115.6M due in 2020 but paid in 2019. Royalties paid to the department of Potosí in 2019 amounted to US\$ 40.1M (85%) with the remaining US\$ 7.1M (15%) of royalties destined only for the municipality of Colcha K.

During the year, MSC purchased a total of US\$ 337.3M in Goods and Services; 46% of these Goods and Services were obtained in Bolivia, US\$ 14.9M (4.4%) of the total was obtained from the local communities, representing an increase of US\$ 2M since 2018 and further benefiting the local economy. On the other hand, our revenues decreased 26% by the end of 2019 mainly due to falling metals prices but also affected by rising treatment and labor costs and reduced concentrate production.

During 2019, MSC faced a number of challenges including a serious labor dispute, national election conflicts and political upheaval towards the end of the year that also had a negative impact on our production and costs.

At the end of 2019, our workforce consisted of 1,381 MSC employees distributed in the camp and in our offices in the cities of Potosí and La Paz as well as 1,036 contractor employees, i.e. a total of 2,417 workers. Of the 1,381 MSC employees, 742 belong to the San Cristóbal Union of Mine Workers (SMTMSC). Our

approach to labor relations has been to solve problems through mutual respect and dialogue. Unfortunately, an issue regarding the legal interpretation of how to pay for Sunday work remained unresolved. The result was a strike in August by the SMTMSC with the support and encouragement of various third parties. The strike was tentatively resolved after 20 days with the support of the Ministries of Labor and Mining as well as the leaders of the two major unions in Bolivia, the Central Obrera Boliviana (COB) and the Federación Sindical de Trabajadores Mineros de Bolivia (FSTMB).

Shortly after the strike was resolved, the national elections were held in October and subsequently disputed; the result was violent social disruptions, the President's resignation and the installation of an interim government in November. These events were, of course, a great concern for our workforce and our management. They severely disrupted our supply chains, production and costs at a time when we were recovering from the impacts of the strike.

It is a great tribute to our operations and support staff that we successfully endured these very difficult challenges without losing faith that MSC would persevere and that they did it responsibly, with no persons harmed and with no damage to the environment. We can attribute this success in part to the integration of our values into the daily activities of our team.

MSC continues to comply with ICMM principles and position statements, which are aligned with the United Nations Sustainable Development Goals (SDGs.) Among our 2019 goals related to ICMM principles, was to better understand and improve our practices in the areas of Human Rights, Biodiversity and Climate Change. Topics in which we made relevant progress.

Our challenge for 2020 will be to develop and socialize a new five-year strategic plan, taking into account our detailed assessment of various risks and lessons learned in 2019 as well as the expectations of all of our many stakeholders. We must renew our efforts to increase efficiencies responsibly to overcome the challenges of rising costs in a tight market. And we must engage our partner communities and other authorities in our long-term planning for extending the life of the mine. That will entail extending the original agreements made with MSC and the communities beyond 2024.

Finally, we invite you to read our 2019 Sustainability Report. We hope you find it sufficiently detailed and informative to give you a true picture of what has been accomplished by the MSC team, how it has benefited Bolivia and the potential for responsible mining in Bolivia in the future.



Dave Assels
Vice President & General Manager



Mitsuhiro Hirano
President

Minera San Cristóbal S.A. (MSC) ⁽¹⁰²⁻¹⁾ is a Bolivian mining company. In March 2009, we became a wholly owned subsidiary of the Japanese Sumitomo Corporation.

Vision

To be a world class Bolivian mining company.

Mission

Develop a model mining operation through safe operations, at low cost, with innovative technology, with social commitment and respect for the environment, that creates value to the shareholders, the employees, the region in which it operates and the country.

Values

- Trust
- Integrity
- Teamwork
- Honesty
- Professionalism
- Continuous Improvement
- Mutual Respect
- Transparency
- Commitment to Safety, the Environment and Corporate Social Responsibility

1.2 Our

Our values ⁽¹⁰²⁻¹⁶⁾

Our values are the foundation underpinning our actions and our business conduct. A more extensive explanation, as well as the fundamental concepts of our institution, can be found on our website: <https://www.minerasancristobal.com/v3/en/inicio/our-company/corporate-values/>



South hemisphere
Latitude: 21°09'01" S
Length: 67°12'14" W

company
(102-3, 102-4)

San Cristóbal | Nor Lipez Province | Municipality of Colcha K | Potosí | BOLIVIA

Location

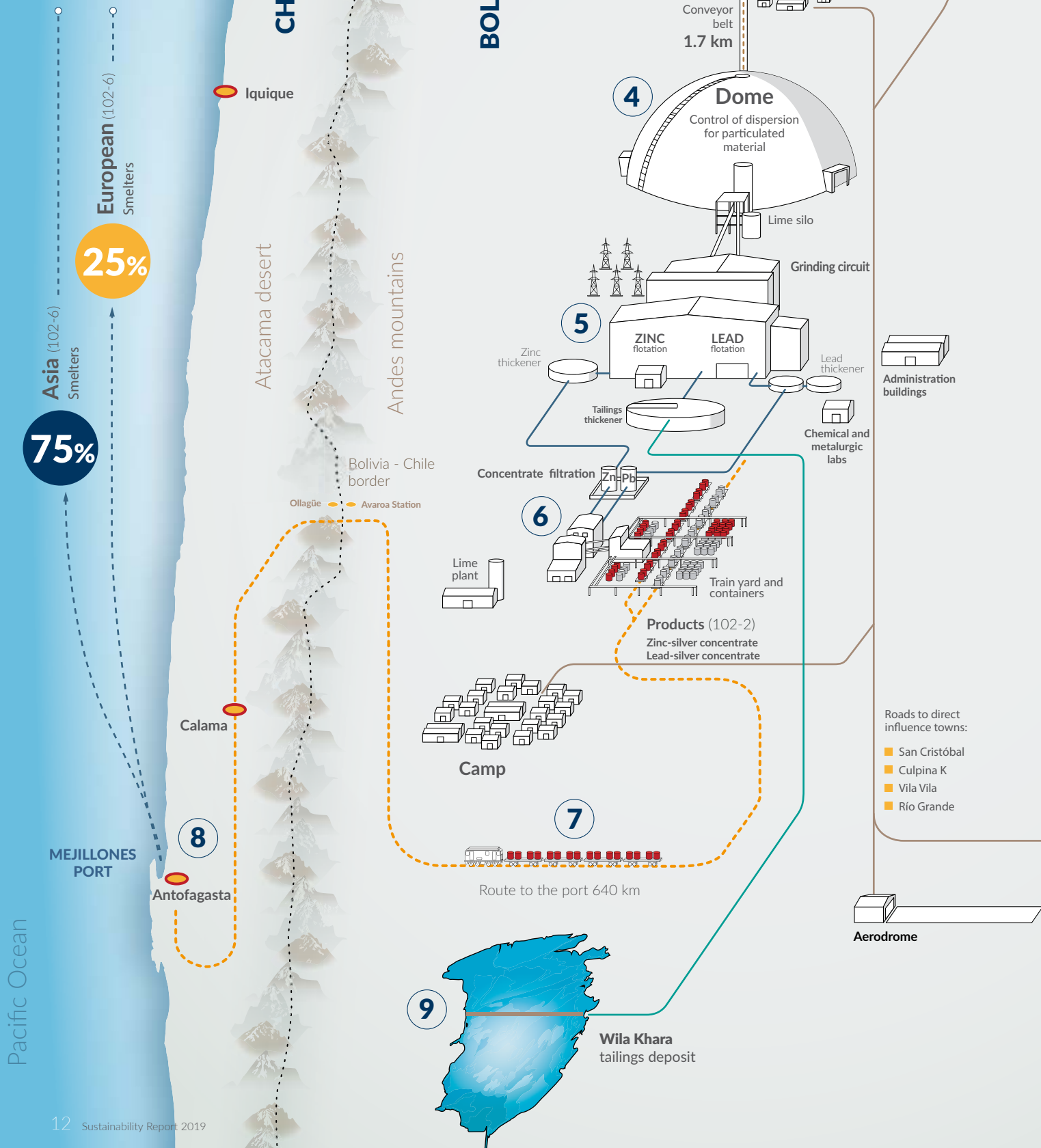
The San Cristóbal mine, which is our only operation (102-7), is located in the province of Nor Lipez, municipality of Colcha K, department of Potosí (102-4). Our administrative offices are located in the cities of La Paz and Potosí (102-3).

At Minera San Cristóbal, we perform our operations by combining the use of state-of-the-art technology with the permanent training of our employees, strict industrial health and safety controls, preservation of the environment and sustainable development, contributing to progress of the region in which we operate, the department of Potosí and the country as a whole. For these and other reasons, we are considered the main mining venture in Bolivia.



MAIN INDUSTRIES:

- Steel
- Brass
- Transport
- Construction alloys
- Consumer goods
- Electrodomestics and engineering



Our company

MSC OPERATIONS

(102-2)

- 1 Drilling and blasting
- 2 Loading and hauling
- 3 Primary grinding
- 4 Stock pile (Dome)
- 5 Grinding, flotation and filtration
- 6 Containers loading area
- 7 Train transport
- 8 Port and shipping
- 9 Tailings deposit



Supply chain main categories (102-9)

1,151
Providers

US\$ 337.3
million in combined
procurement
of goods and services.

2019

	Hiring services	Procurement of goods
Community	7%	<1%
National	50%	38%
International	43%	62%


Fuel provision


Grinding elements


Explosives


Chemical reagents


Transport and storage of concentrates


Water treatment


Specialized services

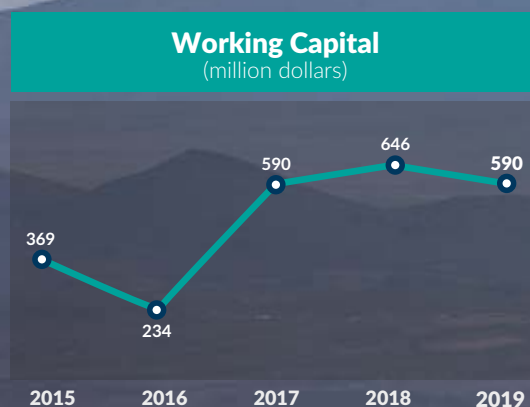
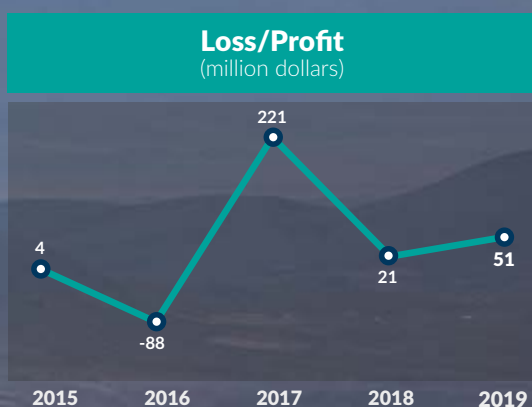
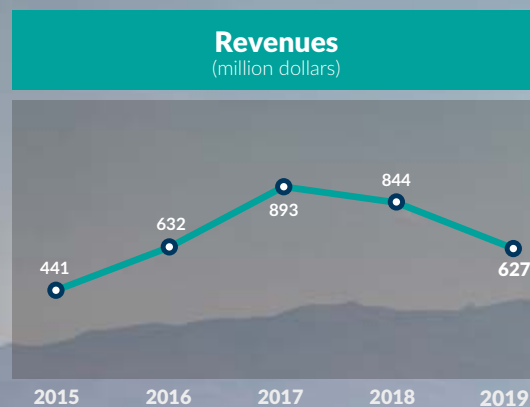

Telecommunications


Catering

More details about the process can be found in:
<https://www.minerasancristobal.com/v3/en/inicio/operations/>

1.3 Operational highlights (102-7)

** The data reflected in these charts are based on a calendar year (January to December). In the reports covering years 2015 and 2016 the data were based on fiscal years. There is more information about this in chapter 3 of this report.*



In 2019, there were no significant changes in terms of size, structure, ownership and supply chain (102-10).

1.4 About this report and its verification

The purpose of this report is to provide annual information to our stakeholders and the general public (102-52) about the performance of MSC, as well as to share how we approach our activities to contribute to sustainable development.

All data published in this sustainability report convey the results of one calendar year, from 1 January to 31 December 2019 (102-50). Previous versions of the report cover the years 2015, 2016, 2017 and 2018 (102-51).

We have put together this report in accordance with the 'Core' option (102-54) of the GRI-2016 (Global Reporting Initiative) Standards and its respective Mining and Metals Sector Supplement; and we have also included the eleven 'Comprehensive' General Standard Disclosures. On page 153, you can find the Content Index, which shows the location of the performance indicators for material topics.

5 years
aligned to the
GRI
standards

Zinc-silver concentrate production (thousand tonnes)



Lead-silver concentrate production (thousand tonnes)



Zinc-silver concentrate sales (thousand tonnes)



Lead-silver concentrate sales (thousand tonnes)



In order to offer a greater level of trust to the stakeholders and the general public in relation to the content of the Sustainability Report, firm Deloitte (102-56) has been hired for the independent verification of the sustainability performance indicators, applicable for the 2019 reporting period. This external entity is endorsed by the Global Reporting Initiative (GRI) and the World Business Council for Sustainable Development (WBCSD), which have extensive experience in verifying sustainability reports in the international mining sector.

We performed the verification in accordance with the International Standard for Assurance Over Non-Financial Information (ISAE 3000), provisions of the International Auditing and Assurance Standards Board (IAASB) and the Sustainable Development Framework of the International Council on Mining and Metals (ICMM) of which we are a member. The limited verification report can be found in chapter 8 of this report.



447,000 t

Zinc-silver concentrate
production



82,000 t

Lead-silver concentrate
production

1.5 Stakeholders and materiality

Identification of stakeholders (102-40, 102-42, 102-43, 102-44, 102-34, 102-46)

We define our stakeholders as the people, groups of people, organizations and public/private institutions that affect or may be affected, positively or negatively, as a result of our activities. For this reason, we seek to connect with them and understand their opinion. We identify, map and analyze the stakeholders in order to engage with them proactively, exchanging ideas so that the operations would respond to their needs and expectations. This engagement is based on the values of mutual respect, honesty and transparency.

We are very interested in the opinions of our stakeholders. For this reason, we open several communication channels to understand their concerns (worries, complaints or suggestions) and expectations related to different aspects of our operations. Thus, they can contact us by phone and email and we consider it is also important to have direct contact (formal and informal conversations, interviews and meetings) with the people who require a closer and more individualized approach.

We respond to and process requests submitted, following them up within a reasonable term (depending on the complexity of each case), since we are interested in providing a comprehensive and appropriate response to all concerns. Before closing each process, we inform the interested party about the actions that were carried out, within the framework of respect, as these actions help us to improve our operations and processes.

We manage concerns systematically in accordance with our process for complaints management and the handling of concerns and/or complaints of stakeholders.

It is important to clarify that we do not participate in politics and that we do not give any kind of contribution to political parties in the country (415-1).

Following a validation process regarding the degree of influence and impact on decision-making, we ratify the following stakeholders as well as their concerns, as aspects that are part of the material topics included in this report.

**Health and safety, are first.
We are responsible with our environment, respect Human Rights and support the communities in areas that we operate.**



Our stakeholders






Materiality process

The materiality process allows us to identify topics that are relevant to our sustainable development management, the specific concerns of stakeholders and the way in which these are prioritized for their development in the sustainability report.



Determination of material topics

To determine the material topics, we consider the following guidelines:















































IDENTIFICATION 	<p>Interviews/Focus groups with different stakeholders (individual or organizational) (2017)</p> <p>Stakeholder analysis and event monitoring</p> <p>Opinions of the management team (Senior Superintendencies)</p>	<p>List of material topics by stakeholder</p>
PRIORIZATION 	<p>Analysis of the results of each stakeholder</p> <p>From a qualitative perspective, they are classified on a scale of high, medium and low depending on the frequency and intensity and/or passion with which the topics or concerns were raised or mentioned in the meetings.</p> <p>Opinions of the executive team (Senior Superintendencies)</p>	<p>List of prioritized material topics</p>
VALIDATION 	<p>Presentation of results to the Presidency and Vice Presidency & General Management.</p>	<p>List of prioritized and validated material topics (102-34)</p>

After determining the material topics prioritized and validated, we define the relevance of these topics based on two dimensions. The first dimension is related to the level of concern regarding the topic among the stakeholders (vertical axis), and the second is associated with the level of impact on the business, both by the action of Minera San Cristóbal and by the action of stakeholders (horizontal axis).

In the materiality matrix, we position the relevant material topics in the upper right quadrant, and in addition, we integrate their 2019 coverage and their relationship with stakeholders (103-1; 102-47).

Subsequently, we hold meetings with the executive team of the company to review and validate the results and material topics that were prioritized (102-21) (102-32). These topics are dealt with in a preferential manner and are subsequently linked to the organization's strategy. The other topics, on the other hand, are dealt with by the area that is responsible for carrying out the operational management. In comparison with previous years, the relationship with the Union was included as a material topic (102-49).

Materiality matrix

CONCERN OF STAKEHOLDERS							Relevant material topics				
HIGH							Employment 	Corporate reputation  Transparency 	Water (tailings deposit and water for communities)  Health and safety (O Fatalities and O LTI)  		
					Sources of work after closure (social)                                         						

We carry out comprehensive and responsible management of the resources we use, with a permanent prevention of the impacts on the different areas and stakeholders.

2 Our sustainability approach

We strive to ensure continuous improvement and, in this way, to be able to contribute decisively and firmly to sustainable development.



We achieve 100% compliance of agreements with communities according to the plan and schedule.



87.60% compliance in the consolidation of health care, prevention and promotion programs.



ODS MSC



work related
fatalities



occupational
diseases



significant
community events

43%

less than the
permissible limit per
day of industrial water
withdrawn from wells

2.9%

of reduction in solid
waste generation
per year

2.1 Sustainable development management

Sustainable development is embedded in our corporate strategy and our way of thinking and acting; it is an indivisible part of our philosophy and can be encountered in the very essence of our company. That is why we make our decisions taking into account the concerns and needs of our stakeholders; accordingly, we develop our planning and operations integrating the social, economic and environmental dimensions.

We believe that health and safety come first, that we are responsible for our environment, we respect human rights, and we respect and support the communities in which we operate. Thus, we manage the natural resources we use with a comprehensive and responsible approach, with a permanent focus on preventing the impacts which our operations may produce in different areas and stakeholders. This approach is part of our vision, mission, management policy, objectives and strategic goals, and therefore governs all aspects of our operations. We strive to ensure continuous improvement and, in this way, to be able to contribute decisively and firmly to sustainable development.

The commitments we take on are also detailed in our management policy, available on our website: <https://www.minerasancristobal.com/v3/en/inicio/ourcompany/management-policy/>

Sustainable development is embedded in our corporate strategy and our way of thinking and acting.

Our approach to sustainable development is mainstreamed at all levels of the company. This approach is managed through business processes and systems (BMS or Business Management System) (103-3). It comprises four main components: business management, product realization, services management and continuous improvement. In turn, the components are made up of different systems and they interact in a dynamic manner through the flow of knowledge consisting of internal and external learning and feedback from stakeholders.

At MSC, we have the real potential to contribute to most SDGs (Sustainable Development Goals). We express this contribution by complying with the principles and position statements of the ICMM, which are in turn aligned with the Sustainable Development Goals of the United Nations. In the next page you can see our management model and its alignment with the SDGs.

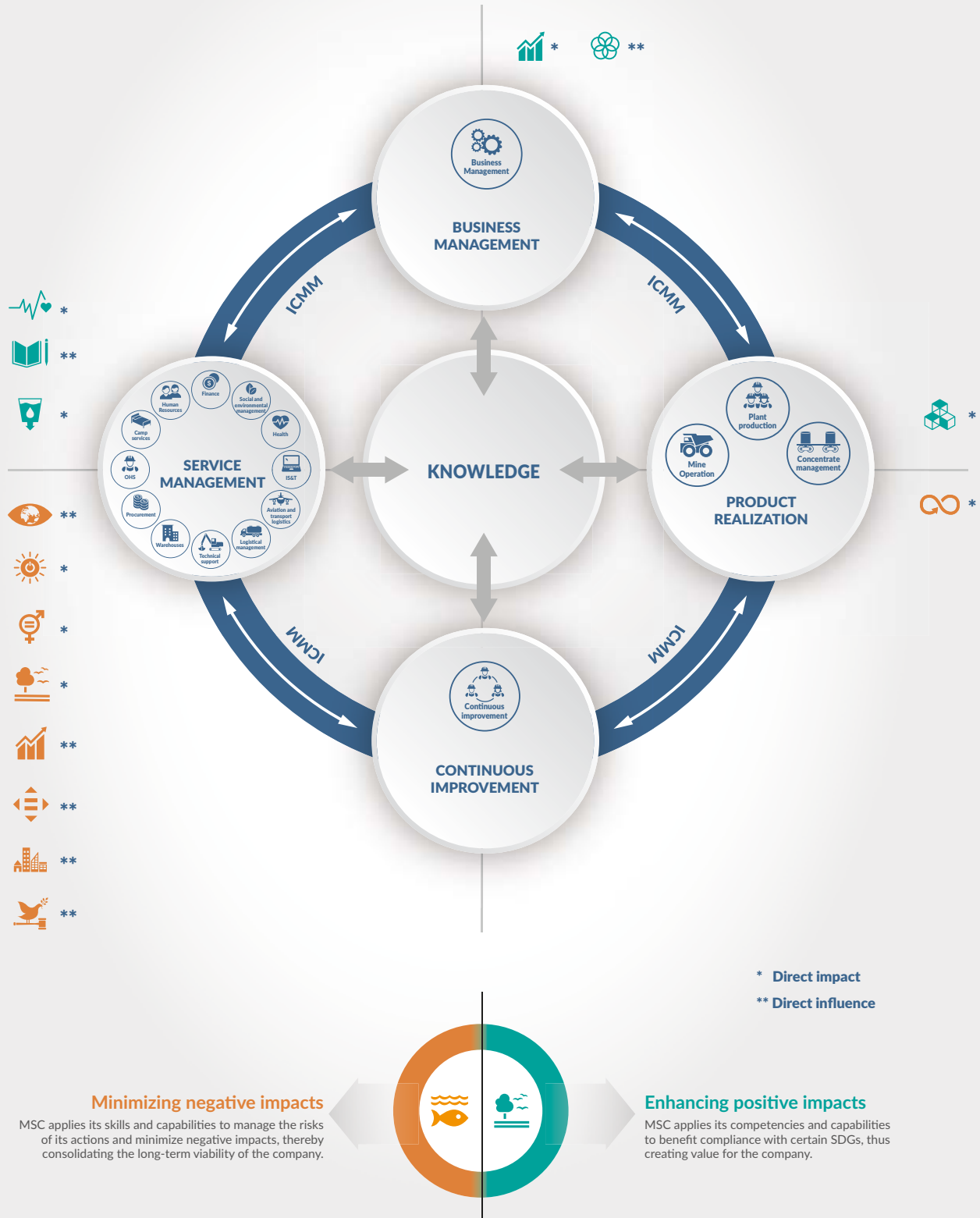
The approach to sustainable development is mainstreamed at all levels of the company. This approach is managed through business processes and systems.

Management model, ICMM and SDG



To improve our level of understanding and alignment to the SDGs, and based on the Sustainable Development Goals (SDG) Compass guide, we map prioritized SDGs and incorporate them into our business model.

Mapping the SDGs in our management model



We are committed to advancing the implementation of Business Reporting on SDG Guides to improve our strategic alignment and contribution approach.

As members of ICMM (www.icmm.com), in 2019 we participated in the pilot project to implement the “ICMM Performance Expectations Self Assessment and Validation Guidance”. The purpose of this guidance document is to supplement the ICMM Assurance and Validation Procedure and to provide explanatory information to company members on the implementation and evaluation of the Performance Expectations (PEs). This guidance document is organized by the 10 Principles and associated PEs and provides information regarding the intent and applicability of the PEs and examples of evidence that would be indicative of successful PE implementation. The intention is that this be a ‘living document’ that will be subject to periodic revision in light of experience.

This project helped us to strengthen our understanding of the ICMM principles and position statements, as well as validate the applicability and our level of fulfillment of the Performance Expectations. The conclusions of the pilot project were shared worldwide through workshops.

As part of the commitment and bridging of the gaps identified in the process of joining the ICMM (2017), we carried out the following activities:

- Internal monitoring of defined improvement tasks.
- Integration of the progress information into the 2018 and 2019 Sustainability Reports.
- Verification by an independent body (Deloitte) of the Sustainability Report, integrating GRI Standards and ICMM Principles.
- Interview of MSC staff with the ICMM expert panel to validate the information submitted, absorb specific questions and supplement information.
- Interview by Deloitte staff with the ICMM expert panel to validate the methodological framework of the verification carried out, the information collection, the traceability, the presentation of results and the conclusions.

The ICMM expert panel agreed with the information submitted and will issue a report with the findings of the monitoring process.

ICMM

MSC is member
since 2018

Implementation of
the Business
Reporting on

SDG
Guides

Verification

by an independent
entity
(Deloitte)

2.2 Our sustainability performance

The 2019 goals and achievement thereof are described below:

	Objective	Result	State	Reference
Economic/Operational	Produce 1,615 dry tons of concentrate per day.	1,349 t	Not met	2018: 1,573 t 2019: 1,349 t
	Continue with exploration drilling programs.	100% of planned programs completed: San Francisco Phases I and II; Pit Phase VII	Met	-
	Complete studies on silver oxides.	Scheduled Performance Index = 0.89 Cost Performance Index = 0.84	Significant progress	-
	Consolidate the integrated risk management model.	Improved operational risk management. Inclusion of different management areas linked to sustainability in risk management.	Significant progress	-
People	Zero work related fatalities.	0	Met	2018: 0 (zero) 2019: 0 (zero)
	Zero occupational diseases.	0	Met	2018: 0 (zero) 2019: 0 (zero)
	Improve the Total Recordable Frequency Rate (TRFR) of MSC and contractors per 200,000 man-hours of risk exposure year by year.	MSC 0.79	Not met	2018: 0.57 2019: 0.79
		Contractors 1.32	Not met	2018: 0.71 2019: 1.32
	98% compliance with quality standards for accreditation of local network services.	94%	Not met	2018: 98% 2019: 94%
	65% compliance with external network quality standards.	62%	Significant progress	2018: 57% 2019: 62%
	90% compliance in the consolidation of health care, prevention and promotion programs.	87.60%	Significant progress	2018: 80.32% 2019: 87.60%
Social	Formalize the Human Rights management framework.	Gap analysis based on the social protection standard, Triple seal: Free from child labor, forced labor and discrimination. Revision of the general manual on Human Rights and instruction on sexual harassment.	Significant progress	
	Keep the SLO at a value greater than 3.5.	3.61	Met	2018: 3.67 2019: 3.61
	Zero significant community events.	0	Met	2018: 0 (zero) 2019: 0 (zero)
	Achieve 100% compliance of agreements with communities according to the plan and schedule.	100% fulfilled by 2019 84% overall compliance	Met	-
	Strengthen the political, social and productive organizations of communities in the direct influence area.	Strengthening of the water committees of San Cristóbal and Culpina K, slaughterhouse and meat processing plant with production plans.	Met	-

	Objective	Result	State	Reference
Climate change	Establish the climate change management framework.	Climate change research and implementation plan.	Significant progress	-
	Maintain operational GHG emissions (scope 1 and 2) at or below 2018 levels.	224,227 tCO ₂ eq	Met	2018: 231,598 tCO ₂ eq 2019: 224,227 tCO ₂ eq
	Reduce energy consumption (1% per year).	2.4% increase compared to the previous year.	Not met	2018: + 1.7% 2019: + 2.4%
Environment	Zero environmental events to be reported externally to environmental authorities.	0	Met	2018: 0 (zero) 2019: 0 (zero)
	Maintain a maximum of 39,000 m ³ per day of industrial water withdrawn from wells.	22,517 m ³	Met	2018: 25.240 m ³ 2019: 22.517 m ³
	Keep below 0.6 m ³ /t produced, the industrial water used from wells.	0.46 m ³ /t	Met	2018: 0.51 m ³ /t 2019: 0.46 m ³ /t
	Improve the identification and applicability in MSC of international standards related to solid and hazardous waste management.	Initial survey carried out	Not met	-
	Reduce waste generation (2% per year).	2.9% decrease in the generation of waste compared to previous year.	Met	2018: + 19.6% 2019: - 2.9%
	Formalize the framework of integrated water management.	Review of existing studies, generation of data sheets and database. Diagnostic of the water monitoring system by micro basins, maintenance plan and improvements of the well monitoring system. Pending formalization of the comprehensive water management policy.	Significant progress	-
	Formalize the biodiversity management framework.	Biodiversity research and implementation plan.	Significant progress	-

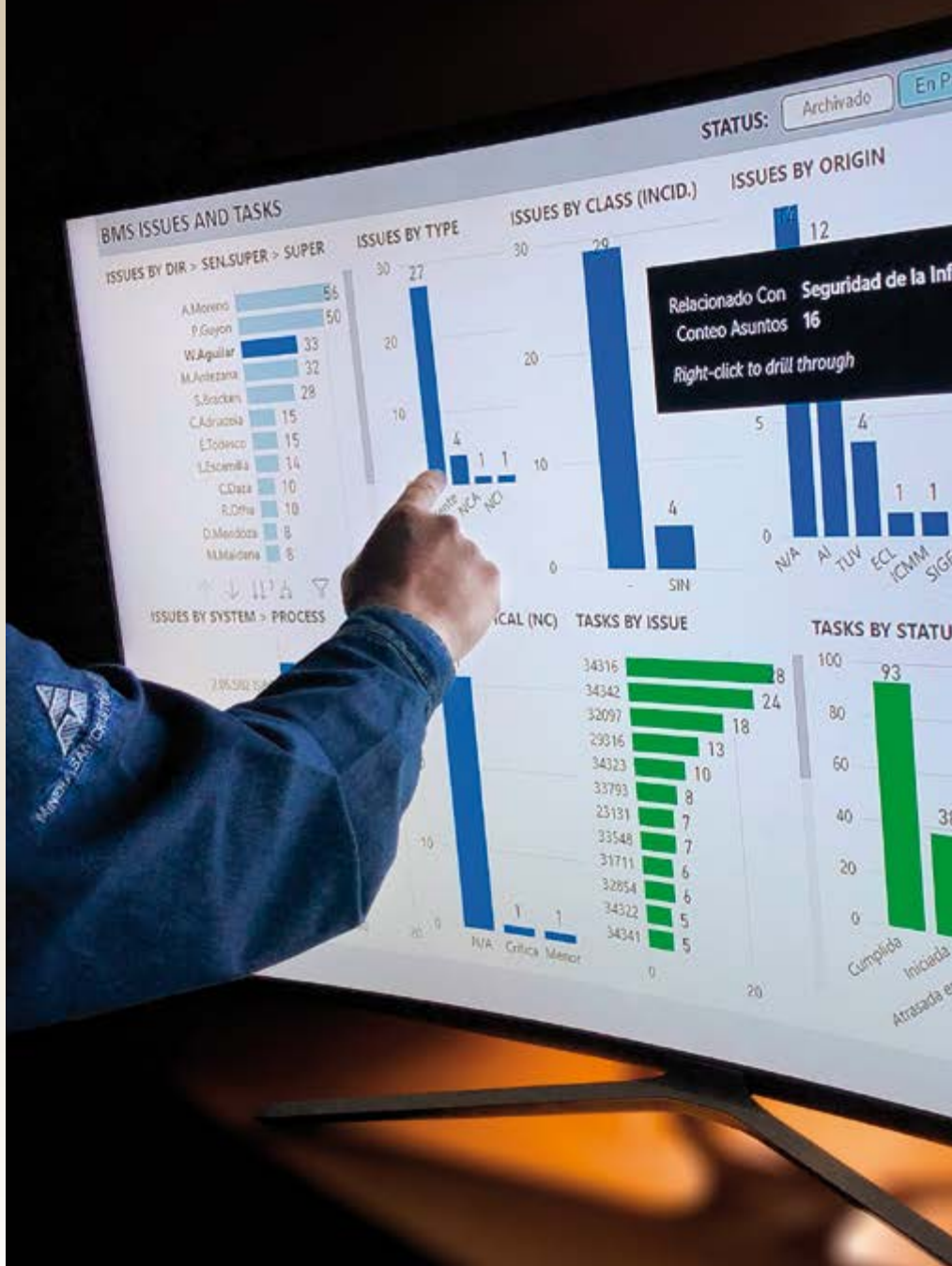




CASE STUDY

Data analytics for continuous improvement

The great benefit of these tools is the guidance for more efficient decision-making at all organizational levels.



One of the fundamental values of Minera San Cristóbal is Continuous Improvement, which is mainly based on data analysis and a decision-making process in different organizational areas. In this context, two very important descriptive and predictive data analytics projects were undertaken in 2019, using Business Intelligence and Artificial Intelligence mechanisms. The first one is related to the development of Dashboards for data visualization at all organizational levels, focused primarily on monitoring performance of the areas; and the second one is related to the automatic calculation of our Social License to Operate (level of acceptance or approval of the activities of an organization by stakeholder).

Descriptive
and predictive
**data
analytics**

Business
Intelligence and
**Artificial
Intelligence**

**Automatic
learning**
and analytical
classification

In the first case, the set of management and operational dashboards was oriented towards the control and visualization of the following aspects: issues and tasks of the management system; process metrics; help desk tasks; operational work of certain areas; key performance indicators; daily mine and plant operations; export operations; cost and budget control; etc.

The great benefit that these tools have begun to demonstrate is based primarily on guidance for more efficient decision-making at all organizational levels and early detection of operational deviations. Additionally, other benefits that were achieved are: access to online information; analysis and synthesis of current and historical information; focus on issues of business impact; integrity of information; etc.



In relation to the second case, it is important to mention that we have been applying the calculation and estimation of the indicator of the Social License to Operate (SLO) with the help of external consultants for nine years. This task is carried out using traditional survey-based methods, which are extremely useful because they allow us to understand and make appropriate decisions about the concerns and expectations of our stakeholders.

In 2019, we used artificial intelligence techniques, such as: machine learning; classification; text analytics on natural language; discourse analysis; sentiment analysis and others. These techniques were especially useful to us, as they allowed us to implement a new estimation mechanism based on the processing of information extracted from the Internet (from social networks, blogs, News Rooms, etc.).

The tool developed allowed us to infer external assessments of our operations and to detect transcendental issues in the content of speeches in the surrounding context, which allows us to act proactively in the focused treatment of the social benefits we pursue.

It is important to note that, having not ruled out the traditional method, the two mechanisms used became complementary. This enabled us to be more efficient in analyzing the concerns of our stakeholders and in considering actions to remedy them.

In conclusion, we should emphasize that both data analytics initiatives were aimed at supporting business decisions for solving problems related to internal operations and external opinions, significantly geared to the organizational mission, particularly in terms of social commitment and value creation.



2.3 Commitment to external initiatives ⁽¹⁰²⁻¹²⁾

As a result of our management practices, we have been granted and have managed to keep the following nationally and internationally recognized external certifications, frameworks or standards:

The Universal Declaration of Human Rights of the United Nations
ISO 14001 - Environmental Management
ISO 9001 - Quality Management
OHSAS 18001 - Occupational Health and Safety Management
ISO / IEC 27001- Information Security
ISO / IEC 17025 - Technical competence of the chemical laboratory
NB 512001 - Healthy workplace
IS-BAO - Good practices in air operations and maintenance
AMO – Approved Maintenance Organization for MSC's airplanes
AEO - Authorized Economic Operator. Security in the international logistics chain as an importer and exporter
National and International Labor Standards
GRI Standards - Global Reporting Initiative Sustainability Reporting Guidelines
ICMM - Principles and position statements that promote Sustainable Development

The relevant certificates are available on our website

<https://www.minerasancristobal.com/v3/en/inicio/certifications/>

2.4 Memberships and associations ⁽¹⁰²⁻¹³⁾

As of December 2019, we are members of or participate in the following business associations:

Level	Business or sectorial association	Position
National	National Association of Medium sized Miners	First Vice Presidency
National	Confederation of Private Entrepreneurs of Bolivia	Third General Member in the Executive Committee
National	National Chamber of Commerce	Affiliate
National	National Chamber of Industries	Member of the Board
Regional	Chamber of Exporters of La Paz	Member of the Board
Regional	Federation of Entrepreneurs of Potosí	Treasury
International	International Council on Mining and Metals	Member



We carry out our operations in compliance with the principles of sustainable development.



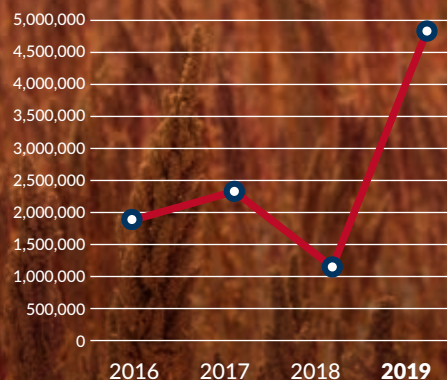
We support the communities in their local economic development, through our management policy that integrates Social Responsibility.



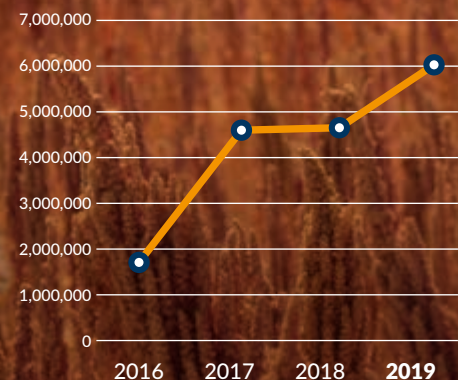
Through an annual program of control evaluations, we verify the effectiveness of internal controls designed to ensure the integrity and accuracy of financial information.

ODS MSC

Community investments
(US\$)



Environmental protection investments
(US\$)



In 2019, we started
with the tests of
the equipment and
machines of the quinoa
saponin removal plant
in Culpina K.

3 Economic performance and contributions

Approach

During 2019, our revenues from concentrate sales decreased by 26% compared to 2018. This decrease was due to the effect of the fall of metal prices on the international market and the decrease in the volume of concentrate sales.

However, it should be noted that at the end of the period between January and December 2019, we had an increase in profits of 151% compared to 2018, mainly generated by a lower corporate income tax derived from the decrease in our sales of concentrates.

The working capital generated during 2019 has decreased by 9% compared to 2018, due to the reduction in our cash and bank resources, which was caused by the payment of dividends as well

as a decrease in the payment of corporate income tax.

It is also important to mention that, under the category "Payments to Government (taxes)", during 2019 payments were made in respect of corporate income tax corresponding to fiscal year 2018 and, exceptionally, the tax corresponding to 2019 fiscal year was paid in advance. These actions affected our cash and bank resources.

Finally, it is important to mention that in 2019, no fines or other monetary penalties for violating laws or regulations were imposed on us (419-1).



3.1 Economic performance ⁽²⁰¹⁻¹⁾

Below are the comparative data for the last five calendar years:

Economic performance

Million US\$					
Economic value generated	2015	2016	2017	2018	2019
Operating revenues	441.3	631.7	892.8	843.6	627.2
Financial revenues	0.1	0.2	2.6	10.7	9.4
Non-operating revenues	11.1	10.0	8.5	9.1	7.1
Total economic value generated ⁽¹⁾	452.5	641.9	903.9	863.4	643.7

⁽¹⁾ Revenues from concentrate sales net of treatment and freight costs.
Revenues from interest earned on short-term investments.
Revenues from exchange rate gain.

Million US\$					
Distributed economic value	2015	2016	2017	2018	2019
Operating costs	219.9	188.1	206.3	217.5	212.1
Wages and benefits	76.0	78.1	79.6	90.4	102.8
Capital expenditure	13.1	7.2	10.9	9.6	11.7
Financial expenditures	7.0	8.0	7.8	8.1	8.6
Payments to capital providers (owners)	117.0	70.0	100.0	200.0	161.7
Payments to Government (taxes)	61.1	246.9	191.9	253.7	401.9
Community investment	0.8	0.9	1.7	1.0	4.9
Distributed economic value ⁽²⁾	494.8	599.2	598.3	780.2	903.7
Total retained economic value ⁽³⁾	(42.3)	42.7	305.6	83.2	(260.0)

⁽²⁾ Operating costs: Payment to suppliers of goods and services for normal operation.

Wages and benefits: Value distributed to workers through payments of wages, social contributions, bonuses, social benefits and health.

Capital expenditure: Investment in capital assets that contribute to the operation.

Financial expenditures: The obligations generated from interest on bank loans.

Payments to capital providers: Dividends paid to shareholders of the Company.

Payments to Government: Contribution of the company to the tax authority, through the payment of corporate income tax, royalties, mining surface rental fees and other taxes.

Community investments: Contributions to social programs, sponsorship and donations.

⁽³⁾ Retained economic value: This is the difference between the economic value generated and the distributed economic value, which will be reinvested in the company to ensure continuity of the operations. This difference includes depreciation and amortization in addition to the profit of the period.

We should underscore that comparative data with previous years may have varied in relation to previous reports, specifically with regard to payments to the government. This is due to the adaptation of the form of financial adopted for the GRI, in addition to the reporting of financial data which were previously reported based on the fiscal year (October 1st to September 30th) ^(102-48, 102-49).

The Financial Statements as of September 30th 2019 submitted to the National Tax Service (SIN) only concern the activities of Minera San Cristóbal S.A. and do not include any other entity ⁽¹⁰²⁻⁴⁵⁾.

The information on economic performance contained in this report comes from internally audited accounts; financial management is subject to both internal and external verification because of its relevance to us.

The information about our economic performance contained in this report, comes from internally audited accounts and financial management is subject to both, internal and external verification.

Internally, we conduct random reviews through an annual program of control evaluations, which we use for quarterly verification of the effectiveness of internal controls designed to ensure the integrity, exposure, validity and accuracy of the financial information. Externally, the financial information is audited to ensure that the information presented in the Financial Statements issued as at March and September of the corporate and local years, respectively, is reasonable.

3.2 Indirect economic impact (203-1, 203-2)

At MSC we want our presence to generate well-being in the communities of the region. That is why we support and carry out various projects that create a significant indirect economic impact in the region.

In 2019, we invested US\$ 957,317.60 for the maintenance of roads in the area around the San Cristóbal mine and the main roads that go to Avaroa on the border with Chile.

From the initial stages of development and during construction of the San Cristóbal mine, we have fully funded the construction of more than 200 kilometers of roads and bridges, 172 kilometers of electric transmission lines and 65 kilometers of railways.

We contributed a matching US\$ 3 million to the ongoing project for asphaltting the Puente Río Grande—Cruce Laguna Colorada highway, thus fulfilling the agreements signed with the municipal governments of Colcha K and San Agustín. From the beginning of our operations to date, these investments have enhanced mobility, improved communications and integration of the communities in the region with the department of Potosí and the rest of the country.

A yellow Caterpillar motor grader is shown from a low angle, moving from left to right across a dry, dusty terrain. The machine is kicking up a cloud of dust behind it. The background features a clear blue sky and distant, arid hills. The grader has 'CATERPILLAR' and the number '370' visible on its side.

We invested US\$ 957,317.60 for the maintenance of roads in the area around the San Cristóbal mine and the main roads leading to Avaroa on the border with Chile.

Also in the same year, we continued our activities to mitigate the impacts generated by the mining operations. These actions were carried out in coordination with the affected families, mainly the construction of new reservoirs to harvest rainwater for consumption by the camelids.

In a joint effort with the water committees of the communities of San Cristóbal and Culpina K, and in connection with the support of basic services, we maintained and improved the operation of the systems pumping water from the water wells for consumption. We also continue to provide training and technical assistance to operators in the provision and optimal distribution of water to the population, and to the committees in the drafting of their regulations as part of the institutional strengthening process.

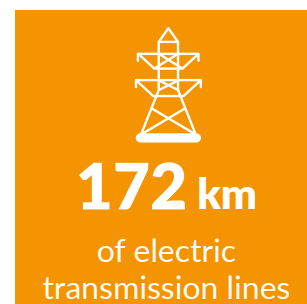
In addition, we take responsibility for the sustained supply of electricity to the communities of San Cristóbal and Culpina K, and support them in waste management and improvement of the landfills.

As far as productive development is concerned, we started the production tests of the slaughterhouse and the meat derivatives processing plant in the community of San Cristóbal. We also started the tests of the equipment and machines of the quinoa saponin removal plant in Culpina K.

In the social sphere, we have provided scholarships to send professionals from the communities to undertake postgraduate studies in Spain; we have continued with the training and certification of local entrepreneurs and producers at the level of basic and assistant technicians within the alternative education program of the Ministry of Education of the Plurinational State of Bolivia; and we have met the goal of accreditation of three health centers in the communities that make up the Consultative Council. Finally, in the environmental sphere, and in coordination with the authorities and the committees, we have achieved a reduction in water consumption in the towns (203-2).

In this context, we specify the following positive impacts: mobility, integration and improvement of road infrastructure; improvement of the quality of life through access to drinking water and electricity; support for vulnerable groups; construction of a culture of care for the environment; generation of sources of employment and economic independence; technical training; transfer of local traditions to future generations, among others.

The possible negative impacts are associated with economic differences; an increase in social problems (alcoholism, teenage pregnancy, drug addiction, domestic violence).



We contributed US\$ 3 million for asphaltting the Puente Río Grande—Cruce Laguna Colorada highway, thus fulfilling the agreements signed with the municipal governments of Colcha K and San Agustín.

3.3 Local procurement and relationship with our suppliers (204-1)

We make efforts to benefit national and local suppliers with procurement for our operations. Therefore, we give priority to local community providers so that they could develop and strengthen their capacities. Our contractors submit relevant certificates and documents in accordance with the supplier qualification process through public tenders, quotations and direct invitation. Likewise, we ensure that our contractors comply with the policies and standards related to quality, health, safety and environment implemented by our company, as well as that they respect the relationship with our communities.

The contracts with our suppliers are subject to clauses of our Code of Ethics and Business Conduct, as well as anti-corruption and anti-bribery clauses. We conduct regular monitoring and performance evaluations to verify whether the quality of the services provided is in accordance with the expected level. In 2019, we invested an approximate amount of US\$ 337.3 million in the combined purchase of goods and services, i.e. higher than the amount recorded in 2018 (US\$ 326.1 million).

Of this amount, the procurement of goods accounted for an approximate amount of US\$ 118.8 million, of which US\$ 44.6 million (38% of the total) from national and local origin. Because the volumes and specifications for certain supplies for operation are not produced in the local market, most of these are purchased in the international market, especially diesel, explosives, reagents and mill parts.

In terms of services (transportation, electricity, food, maintenance, etc.), we invested an amount of US\$ 218.5 million.

While services purchased abroad make up 43% of total procurement, the rest of the services are procured within the country. Regarding the geographical composition of our service providers, 7% of all services (US\$ 14.9 million) were procured in the communities of the direct influence area (Culpina K, San Cristóbal and Vila Vila) and 50% of the total services (US\$ 108.9 million) from the rest of the country.

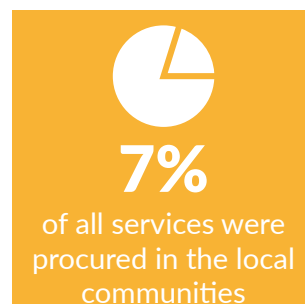
This means that we purchase 57% of the services from national suppliers, including local communities.

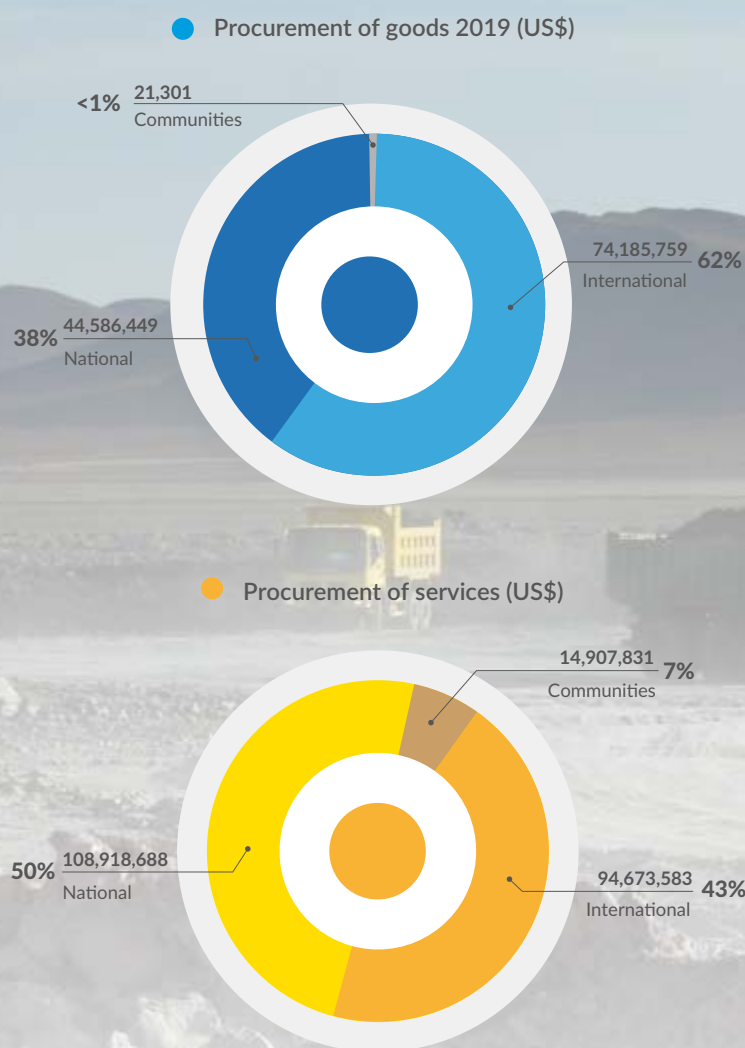
The contracts with our suppliers are subject to clauses of our Code of Ethics and Business Conduct, as well as anti-corruption and anti-bribery clauses.

Procurement of goods and services



Procurement of services





Beyond the economic benefits we generate for contractors of goods and services in the region, we continue to promote the work of local suppliers, with proper registration, formalization and support for the continuous improvement of their performance.

Procurement of goods (US\$)							
Year	Communities	%	National	%	International	%	
2015	52,817	<1%	32,673,785	34%	63,963,935	66%	
2016	28,744	<1%	30,885,721	38%	50,875,080	62%	
2017	26,554	<1%	30,894,776	36%	54,876,103	64%	
2018	26,948	<1%	40,049,404	37%	69,276,785	63%	
2019	21,301	<1%	44,586,449	38%	74,185,759	62%	

Procurement of services (US\$)							
Year	Communities	%	National	%	International	%	
2015	8,498,324	4%	113,682,770	60%	68,855,974	36%	
2016	8,286,995	4%	108,624,528	55%	81,915,186	41%	
2017	10,430,874	5%	96,127,143	50%	86,065,185	45%	
2018	12,907,596	6%	113,106,509	52%	90,773,645	42%	
2019	14,907,831	7%	108,918,688	50%	94,673,583	43%	

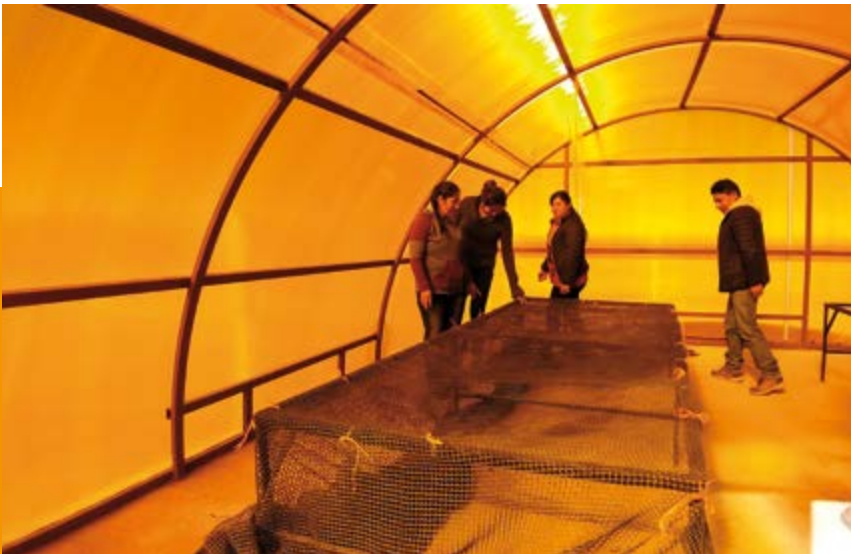
3.4 Community investment (203-1, 203-2)

We carry out our operations in compliance with the principles of sustainable development and within this framework we support local economic development initiatives of the communities through our management policy that comprises Social Responsibility.

We coordinate proposals and projects for community development in conjunction with the Consultative Council Los Lípez San Cristóbal, which is composed of community leaders and authorities from San Cristóbal, Culpina K, Vila Vila and Río Grande.

We promote training and technical assistance to encourage the generation of self-sufficient and independent business ventures, which run parallel to the mining activities. These actions aim to improve the living conditions of the inhabitants of the communities in our area of influence.

We promote the work of local suppliers, with proper registration, formalization and support for the continuous improvement of their performance.



Within the framework of the strategic plan of the Consultative Council Los López San Cristóbal, we coordinate the following actions:

- Manage strategic alliances with public, private, national and international governmental organizations aimed at generating conditions for local socio-economic development.
- Provide technical assistance to productive and social organizations in the communities to strengthen their technical and organizational capacities.
- Improve education and health services in communities in the direct impact area.
- Support business initiatives for the generation of jobs outside mining activities.
- Support macro projects with regional reach: road asphaltting, establishment of the second-level hospital, dry port and electric bay, among others.

Within the community social investment programs, we carry out the following actions:

- Provide a matching contribution for initiatives regarding civil and social infrastructure needs in the communities.
- Support vulnerable groups in the communities in the area of influence with social programs.
- Promote the maintenance of agricultural activities in the communities.
- Support authorities and committees in the provision of basic services (water and energy).
- Promote good environmental practices in the communities.
- Contribute to conservation of the uses, customs and traditions of the communities.



We contribute in the conservation of **habits, customs and traditions of the communities.**



Community investment

2016	2017	2018	2019
US\$	US\$	US\$	US\$

Project/Activity

	Technical assistance	83,347	100,468	71,371	68,185
	Response to requests, development of social investment projects, communication projects and environment	79,164	242,119	89,731	66,494
	Improvement of community infrastructure (matching contribution for minor communal infrastructure works, road improvement and maintenance projects)	80,710	26,215	23,537	3,094,054
	Resettlement and mitigation works and actions	147,346	252,670	149,223	179,692
	Improvement of basic services (improvement, maintenance and expansion of basic services systems: energy and water)	970,794	334,551	44,923	783,125

Education

	Support for students (scholarships for higher education, support for alternative education and for schools)	32,384	42,146	50,497	118,106
	Teacher training	5,760	-	-	-

Health

	Support for the elderly	13,474	13,457	12,132	11,663
	Promotion of the health network, support in implementation of the second-level hospital and the integral health system	19,188	13,523	7,313	6,950
	Psychological support with specialists	25,969	22,418	25,968	22,273

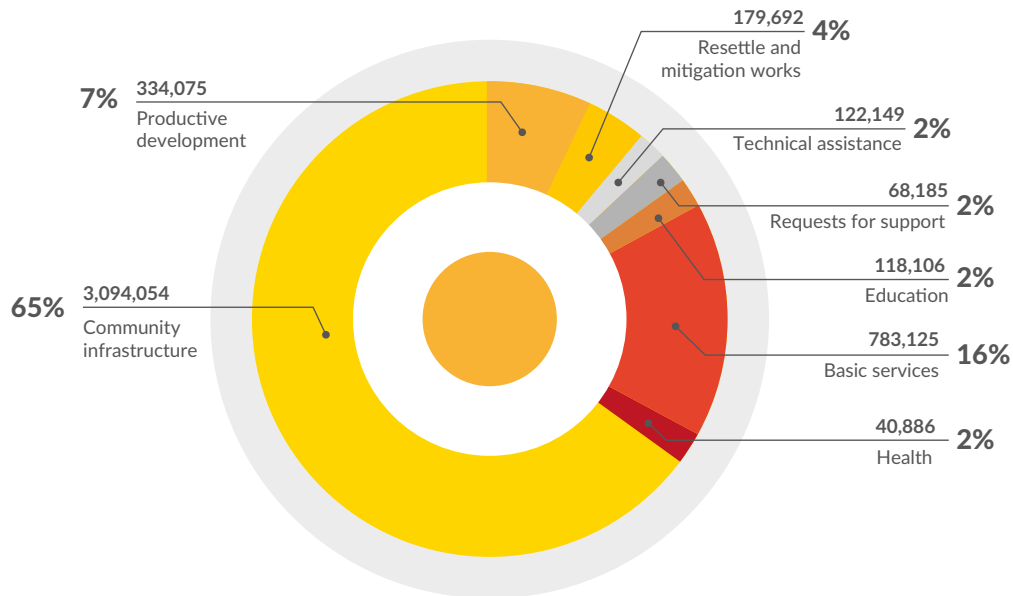
Productive development

	Development and implementation of productive projects (camelids, quinoa and tourism)	361,602	1,028,743	439,688	334,075
	Support for authorities and social organizations for the realization of events at the local, municipal, provincial and regional levels	72,719	204,664	204,077	55,655
	TOTAL	1,892,456*	2,280,973*	1,118,460*	4,740,271*

* The difference in these values compared to the information on "Investments in communities" in the table in chapter "Economic performance" is due to the fact that the costs of some activities were appropriated to different cost centers. .



● Components of investment in the Community 2019 (US\$)



The increase in expenditures in 2019 compared to 2018 is mainly due to the following aspects:

- In community infrastructure projects, we supported the municipalities of Colcha K and San Agustín with financial matching contributions for asphaltting the Puente Río Grande-Cruce Laguna Colorada road, which crosses several communities in the area of influence of Minera San Cristóbal.
- With regard to the improvement of basic services, we invested in the project to build the electric bay of the lithium substation, with the aim of increasing the present power generation capacity in the López I rural electrification network, which will benefit several communities in the province of Nor López. We also invested in the reverse osmosis plant for the treatment of drinking water in the community of San Cristóbal.
- We continued incurring the costs of impact mitigation actions, such as: grazing services

for livestock control in the area of operations; transfer of affected families from San Cristóbal to their former farms and grazing areas; the transfer of water with tank trucks and llama drinking troughs; and, in addition, we carried out works to build and improve water reservoirs as an alternative for sustainable water supply for affected livestock.

- In 2019, we made greater investments in education, granting full scholarships to four young professionals from the communities in the direct impact area. These young people will take a master's degree in Tourism at the "Next Educación" Business School (Madrid, Spain), in order to subsequently contribute to the strengthening of tourism projects in the region.
- We have continued to provide a matching contribution for the productive projects of the Consultative Council Los López San Cristóbal, primarily for commissioning the quinoa saponin removal plant, the slaughterhouse and the llama meat derivatives processing plant.



US\$ 4,740,271
invested in local
communities' projects



400%
increase in communities'
investment

3.5 Investments and total expenses on environmental protection

The operational costs and investments in prevention, mitigation and remediation of environmental impacts included top soil recovery activities at the mine and tailings deposit; civil works in the mine drainage system (canals and lined storage basins in Burro Cancha and Nami); irrigation and chemical stabilization of roads (bischofite application) to avoid dust dispersion; rehabilitation of the Congar and Toldos dams; and operation and maintenance of the tailings deposit water recovery system.

The costs of environmental prevention management include equipment calibration, monitoring, measurement and laboratory analysis; maintenance of meteorological stations; and environmental consultancies.

2019



US\$ 200,171

Investment in
prevention



environmental

Investments in environmental protection	2015 US\$	2016 US\$	2017 US\$	2018 US\$	2019 US\$
Operational costs in prevention, mitigation and remediation of environmental impacts.	2,558,378	1,600,408	4,315,978	4,379,970	5,702,028
Rehabilitation, revegetation and maintenance of areas disturbed by mining operations, within and outside the area of operations.	-	140,625	147,876	182,614	121,951
Environmental prevention and management costs.	104,369	114,728	214,646	205,614	200,171
TOTAL	2,662,747	1,855,761	4,678,500	4,768,198	6,024,150

2019



US\$ 121,951

Investment in
revegetation

protection

We adhere to the human rights principles laid down in the Constitution of the Plurinational State of Bolivia and the Universal Declaration of Human Rights of the United Nations.



4 Ethics and business conduct

Our activities are carried out with honesty and integrity, and in line with ethical, legal principles.



The fight against corruption and bribery in our operation is frontal and unwavering.



We believe that the working environment and respect for the people who work with us are a fundamental pillar of MSC.



ODS MSC



corruption actions
in 2019



child
labor

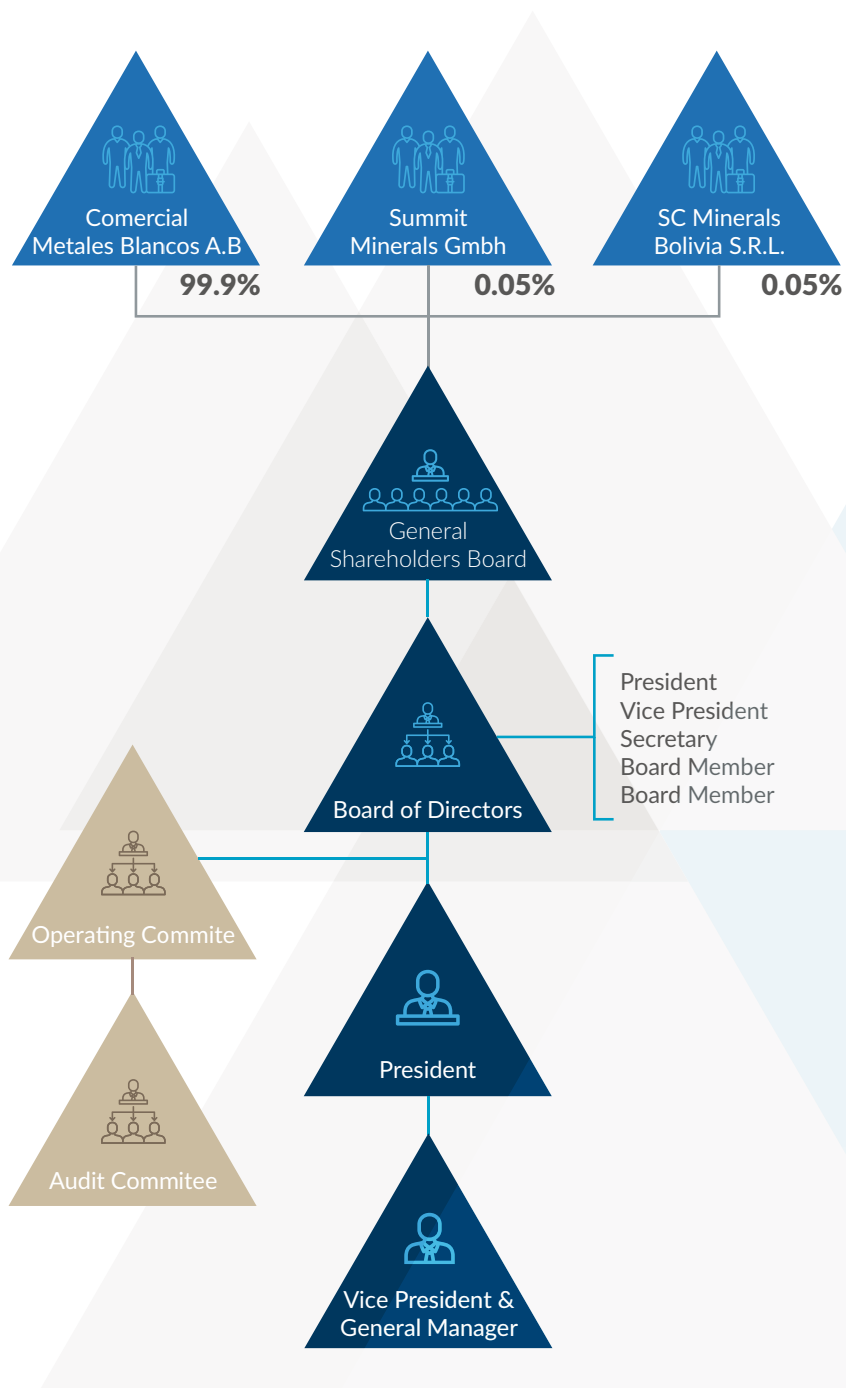



forced
labor

4.1 Corporate governance structure

Minera San Cristóbal S.A. is a company incorporated in Bolivia (102-5) in 2000. As of March 2009, it is a wholly owned subsidiary of the Sumitomo Corporation, a multi-sector business conglomerate headquartered in Japan.

The corporate structure is as follows:





According to Bolivian legislation and our bylaws (102-18), the General Meeting of Shareholders is the highest decision-making body of the company. This corporate government body holds ordinary or extraordinary meetings to decide on fundamental matters regarding sustainable development, the company budget, new mining developments, internal control, operations and others. The company is administered by a Board of Directors whose members are appointed by the General Meeting of Shareholders. The five appointed members of the Board are the President, Vice President, Secretary and two Board Members. The President is a resident in Bolivia during his tenure.

There is an Operational Committee composed of three members designated by the Board of Directors, which has powers to make high-level decisions related to MSC operations which are validated by the Board of Directors. Our organizational operational structure is made up of the Vice President & General Manager and four Directors, who are responsible for managing economic, environmental and social issues. (102-20)

There is an Audit Committee, which is made up of three members: the President of the Board, the Vice President & General Manager and the Deputy General Manager of the Company, and which is empowered to carry out coordinated supervision of financial reporting processes, audit processes, the internal control and the compliance with relevant rules and regulations.

When exercising its functions, the Audit Committee secures the approval of the Board in respect of matters it considers and defines that fall into the category of acts relating to functions of administration, legal representation and/or delegation of managerial acts when involving representation with third parties. Such approval is explicit and results from minutes of the Board of Directors.

The
**sustainable
development**
is managed
at the highest
level

**Our strategic planning in
based on a comprehensive risk
management.**

4.2 Comprehensive risk management

Our comprehensive risk management model at the strategic and operational level promotes risk identification and evaluation, considering the different management areas linked to sustainability: economic; occupational safety and health; environment; community; reputational; and legal. This process is participatory, since it includes personnel of Minera San Cristóbal, contractors and specific personnel linked to the activities, with the aim of enriching the analysis and, above all, putting in place the relevant mechanisms to minimize or control risks.

Our comprehensive risk management promotes risk identification and evaluation, considering the different management areas linked to sustainability: economic; occupational safety and health; environment; community; reputational; and legal.

The identification and assessment of risks that we carry out are comprehensive in relation to our stakeholders; this means that we not only focus on identifying the risks that could impact our operations, but also promote the identification and control of risks which our operations could generate in our various stakeholders.

Our contractors also identify, evaluate and control the risks associated with their activities. To do so, they can use the methodologies defined by Minera San Cristóbal or the contractor's own methodologies that have been previously validated by us.

The materiality analysis and the operational risk identification and assessment provide valuable information to be integrated into the strategic risk identification and assessment. Among the main risks identified in 2019 are (102-15):

Legal framework	Tax issues	Social closure plan	Interruption of the port and railways
Tensions at the border	Political, social unrest and blockades	Work stoppage/strike	Effects of water use

Addressing these risks allows us to manage possible impacts associated with sanctions or fines, economic losses, production losses, termination of the mining administrative contract, environmental impacts, health and safety impacts, delays in progress of development projects in the communities, etc.

Likewise, we manage opportunities such as: extending the life of the mine, efficient water use, optimization of the production process, reduction of energy consumption, reduction in waste generation, preservation of the cultural heritage, new markets for products of community-based ventures, among others.

The information mentioned above is integrated into our “Business Planning and Review” process, as our executive team meets annually to validate or reformulate the strategic planning that will ultimately result in the set of strategic objectives and goals of the business (Strategic Plan) (102-29) (102-30) (102-31).

4.3 Code of ethics and business conduct (102-17)

Our activities are carried out with honesty and integrity, and in accordance with ethical and legal principles, avoiding any act of corruption, i.e. any act that violates the laws in effect and the ethical values of our company. To this end, we have put in place a Code of Ethics and Business Conduct, which promotes:



- Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships.
- Compliance with applicable government laws, rules and regulations.
- Full, fair, accurate, timely and understandable disclosure in reports and documents which the company files or submits.
- Prompt internal reporting of violations of the Code to an appropriate person or persons identified in the Code.
- The immediate preparation of internal reports on violations of the Code for the appropriate person or persons identified in the Code.
- Accountability for adherence to the Code.
- Ethical procedures in all transactions with contractors, suppliers, customers, employees and others.
- Avoidance of situations where personal interests are, or appear to be, in conflict with the company's interests.
- Responsibility in using and protecting the company's assets, including property, equipment, facilities, funds and information.
- Confidentiality of nonpublic information and non-use of such information for personal gain.

Our code of ethics and business conduct also sets out the expectations related to the prevention of conflicts of interests (102-25), which are shared with all our employees on a recurring basis and as part of their job induction. We define a conflict of interest as situations in which personal interests interfere or may conflict in any way with the interests of the company or with the person's duties to the company.

During 2019, the code of ethics and business conduct was improved by incorporating a list of behaviors classified as criminal offenses in the penal code, which are detailed below:

- **Bribery.** This consists of the surrender or promise of surrender, directly or through a third person, by a particular person to a public official or authority, of gifts or any other advantage, in order to do or fail to do something relating to his or her functions.
- **Illicit enrichment of private individuals with an impact on the State.** This consists of a disproportionate increase in the assets of a natural person compared to his or her legitimate income, affecting the State's assets without being able to overturn that situation. Applicable also in the event that the legal representatives or former legal representatives of the company, through private activity, have increased the assets of the company, affecting the assets of the State, whereby they cannot prove that this is the result of a lawful activity. In this case, the company may be obliged to return the assets concerned to the State, in addition to those obtained as proceeds of the criminal offense, and it may be punished with a fine.
- **Favoring illicit enrichment.** This consists of hiding, concealing or legitimizing the increase in assets provided for in the previous section, as well as providing information, for example names, or participating in economic, financial and commercial activities.
- **Transnational bribery.** This consists of promising, offering or granting, directly or indirectly, to a foreign public official or a public international organization, benefits such as gifts, favors or advantages for himself or herself or for the benefit of another person or entity, for the purpose of such official acting or refraining from acting in the exercise of his or her functions in order to obtain or maintain an undue advantage in connection with the conduct of international commercial activities.
- **Receipts from corruption offences.** This consists of an act performed after the commission of a corruption offence by assisting the perpetrator, securing the benefit or result thereof for him or her, or by receiving, hiding, selling or buying it, in the knowledge of the origin of the proceeds resulting from the offence.
- **Illegitimate contributions and benefits.** This consists of the abuse of one's leadership status or of the simulation of superior functions, representations, instructions or orders, by oneself or through a third person, to demand or obtain money or another economic advantage for the benefit of oneself or of a third party.



In a complementary way, we have prepared a proposal to improve the document related to the receipt or delivery of gifts, formal recognitions and others.

4.4 Whistleblower regulation

It is our company's policy to comply with and require our Directors and employees to comply with all applicable regulations and legal requirements related to corporate reporting and financial disclosure, accounting and audit procedures, and other issues relating to fraud against shareholders. Each employee has a responsibility to help the company meet these requirements.

We consider that the working environment and respect for the people who work with us are a fundamental pillar for the performance of our company, which is why we have formal mechanisms consistent with ethics and integrity in the workplace, such as the Mutual Respect Policy, and the MSC Staff Complaints and Suggestions Instruction (102-17). These standards are shared with our employees at the time of their hiring and contain instructions regarding the formal and confidential mechanism at their disposal to report breaches or possible breaches of the regulation.

Breaches can be reported through the pertinent mechanisms or directly to the President or Vice President & General Manager, or to any member of the executive team or to the Human Resources department (102-25, 102-33). Employees filing a complaint related to this policy shall not be discriminated against and shall not be subject to retaliation.

In 2019, we updated the communication flow as well as the management of anonymous reports.

An aerial night photograph of an industrial facility, likely a power plant or refinery. A large, illuminated dome structure is prominent in the foreground. The facility is surrounded by roads and other industrial buildings, all lit up against a dark sky. The background shows a dark landscape with some distant lights.

No corruption
actions were
identified or
reported in
2019.

4.5 Anti-corruption/anti-bribery

The fight against corruption and bribery in our operation is frontal and unwavering (100% evaluated). For this reason, we perform operational, financial and strategic risk analyses related specifically to the sectors in which there might be incidents related to corruption and bribery. To achieve this, we ensure the definition of the necessary internal actions and controls. No illegal actions were identified or reported in 2019 (205-1, 205-3).

We do not tolerate any act of bribery or fraud by the Board of Directors, employees, contractors, suppliers or others. Thus, we take immediate and serious action against those responsible, regardless of their years of service or their position in the company. As part of prevention in this area, we train our staff on issues of combating illegal practices, reinforcing these policies through regular workshops. (205-2)

4.6 Human rights (103-2)

We adhere to the human rights principles laid down in the Constitution of the Plurinational State of Bolivia, the Universal Declaration of Human Rights of the United Nations, the covenants of the International Labor Organization and the ICMM principles. We are committed to honest and transparent communications with our stakeholders and we act with respect for the cultural heritage, traditions and customs of the communities where we operate.

We adhere to the human rights principles laid down in the Constitution of the Plurinational State of Bolivia, the Universal Declaration of Human Rights of the United Nations, the covenants of the International Labor Organization and the ICMM principles.

In 2019 we made little progress in formalizing proposals on human rights policies. Our purpose is to deepen efforts to consolidate the definition of practices, disseminate them and implement the following elements in the future:

- A public document on human rights and indigenous rights policies..
- Due diligence of human rights risks in MSC and in the supply chain, and proposed management measures to address such risks.
- Proposal for the integration of human rights risk management in the business management processes.
- Supplier code of conduct.
- Evaluation and proposal to address the issue of sexual harassment among employees.
- Training in Voluntary Principles on Security and Human Rights.



In 2019, we carried out the gap analysis to determine the level of alignment of Minera San Cristóbal and two contractors with Bolivian standard NB 113001 (Social protection management system), which promotes business management free of child labor, free of forced labor and free of discrimination (triple seal) (408-1).

As a result of the process, we identified the following strengths:

- Compliance with the regulations relating to social protection.
- Gender inclusion (women performing traditionally male activities).
- Fully covered basic services (lodging, food, recreation and others).
- A culture framed in values that are so clear that a solid work environment is built, with staff committed to the vision, mission and policies of the company, and aligned with the fulfillment thereof.
- Technological support for the operation and maintenance of the management system.
- Internal and external communication mechanisms that ensure the company's guidelines are known and understood by all our staff.

Some opportunities for improvement are:

- Specifically integrate aspects of prevention of child labor, forced labor and discrimination into our strategic and tactical business management.
- Strengthen the training process on human rights, specifically on the concepts of the triple seal.
- Identify and analyze the value chain and the critical aspects of action focused on the triple seal.
- Establish key criteria for the selection of suppliers, in which the application of due diligence is decided.
- Enhance the document integration of social protection elements into the management system.

The identified improvement opportunities will be evaluated and an action plan will be proposed to the management team for subsequent implementation.

**We are against
child labor,
forced labor and
discrimination.**



We have a relatively low annual turnover rate, of **4.3%**, which contributes positively to the overall performance of the company.



We have carried out **1,358** regular health checks, reaching 98.33% of our workers.



We support the right to freedom of association and collective bargaining. We have the **Mixed Labor Union of Mine Workers** of San Cristóbal.

ODS MSC

US\$ 829,042

investment in training which is equivalent to **23,561** accumulated man-hours.



human rights violations



Claims for labor practices



fatalities in 2019

We contribute to the creation of quality employment in Bolivia, we seek the best possible working conditions for our employees, with a competitive salary, constant training, decent professional development opportunities, job safety, and occupational health.

5 Our people

Work force characteristics

In addition to contributing to the creation of quality employment in Bolivia, we aim for the best working conditions

Our work force

2,417



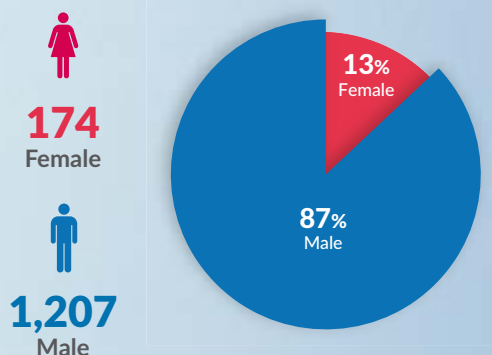
1,381
Employees
MSC
(102-7)

Distributed in the camp and the offices of the cities of Potosí and La Paz.



1,036
Contractors

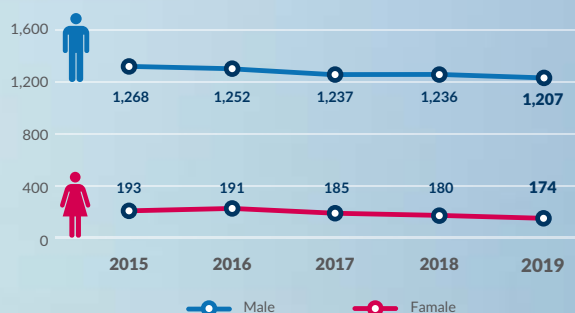
Composition 2019
MSC employees by gender



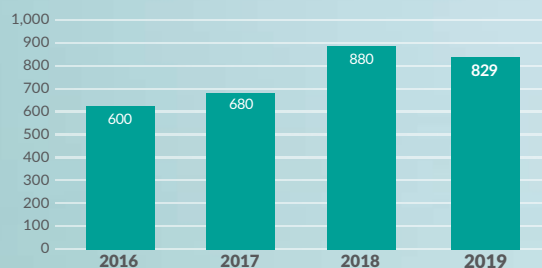
Evolution 2015 - 2019
Number of employees - MSC and contractors



Evolution 2015 - 2019
Employees by gender

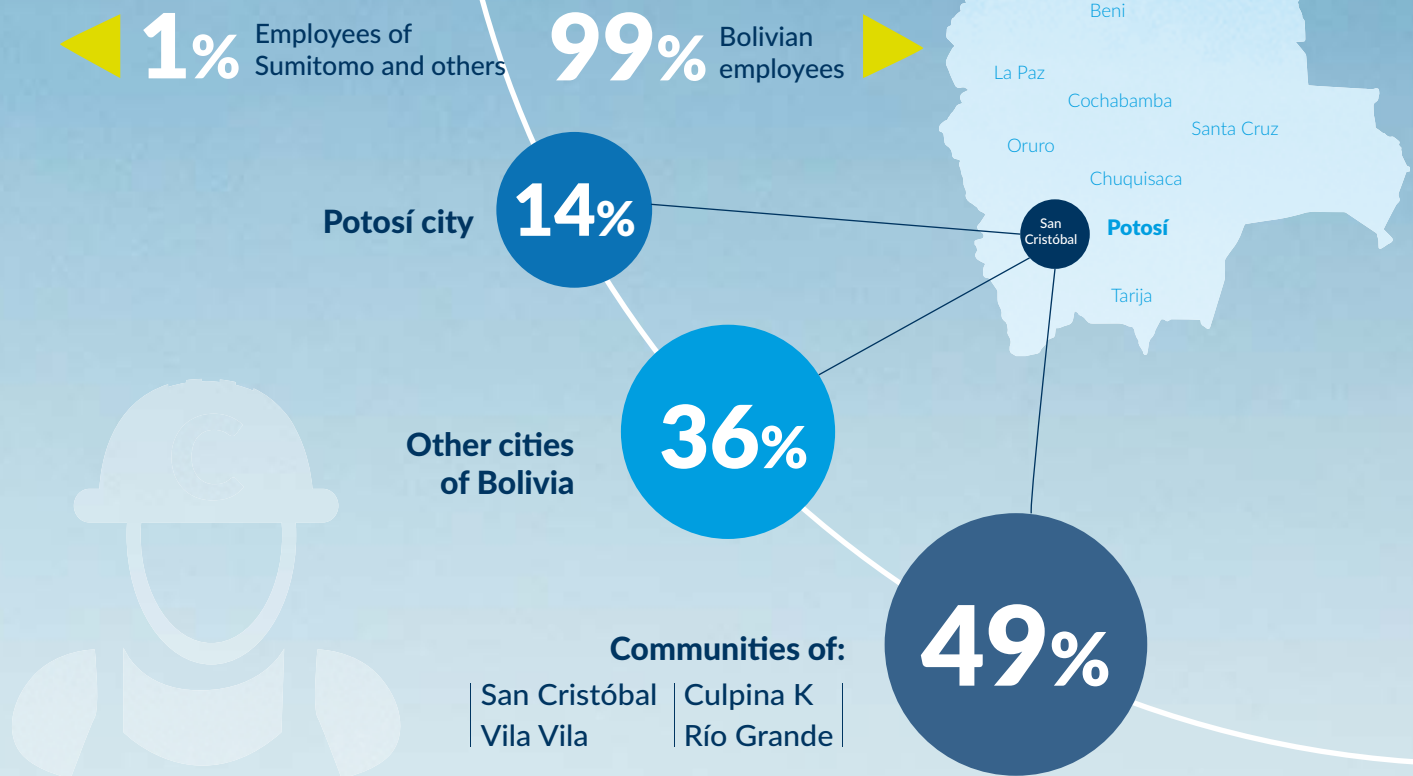


Evolution 2016 - 2019
Investment on training (Thousand US\$)



Hirings

Percentage of employees of Minera San Cristóbal
- according to place of residence (102-8)



Programs (San Cristóbal, Culpina K y Vila Vila)

Care program to the elderly



122
elderly

100% received attention
in 2019

Control program of the healthy child



18
Children

of 5 years old or less on
the day care of San
Cristóbal

Health program for school



660

boys and girls
were evaluated in
2019

Healthy and safe maternity program



61

Pregnant women
were attended in 2019

**Our workforce
is the most
important asset
we have.**

5.1 Workforce characteristics

In 2019, we had 1,381 employees distributed in the camp and our offices in the cities of Potosí and La Paz, as well as 1,036 contractor employees. Thus, we reached a total of 2,417 workers (102-8).

We believe that our workforce is the most important asset we have. For this reason, we implement ongoing training and development programs, so that our employees have a better quality of life. Besides contributing to the creation of quality employment in Bolivia, we seek the best possible working conditions for our employees, providing them with a competitive salary, constant training, decent professional development opportunities, job safety, and occupational health, as well as a warm environment characterized by our values, ethical principles and equal opportunities.



Within the corporate culture that characterizes us, we interact regularly with our stakeholders, including the trade union, contractors, the Ministry of Labor, the Ministry of Health and the Migration Office, among others. This requires a permanent update on issues related to current legal provisions, as well as a smooth communication with the above-mentioned institutions.

Despite the fact that job applications are open to all, without any discrimination, the

gender-based difference in percentage of MSC employees is due to the fact that at each level there are sub-levels, in which there has been little participation by women.

However, we are proud to have several female workers engaged in operational tasks traditionally considered exclusively male ones, at different organizational levels and in different operational areas. Compared to 2018, there is a 2.47% reduction in staff, mainly due to decisions taken by the employees themselves.





527

Workers reside in the communities

5.2 Local recruitment

We prioritize the hiring of personnel from the communities in the area of direct influence to occupy the operational positions, by communicating our requirements to the local administrative authorities of the surrounding communities. Once this source has been exhausted, and with the aim of finding qualified personnel, we broaden the search to the regional level and, subsequently, to the national level.

Foreign staff account for 1% of the total and include employees from different countries and mainly from Sumitomo, who join our company with their highly experienced and knowledgeable profiles to carry out different operations. Among those arriving from Sumitomo, there are also employees who are in the learning stage.

Percentage of employees of Minera San Cristóbal by place of residence (102-8)

	2015	2016	2017	2018	2019
Communities	49	49	48	48	49
Potosí	14	14	15	14	14
Other cities	36	36	36	37	36
Other countries	1	1	1	1	1

Our executive level consists of Directors, Managers, Senior Superintendents and Superintendents. Among the representatives at the executive level, one superintendent comes from the local communities in the company's area of influence, accounting for 1.9% of the executive level (202-2).

Number of MSC employees by place of residence and level (2019)

Level	Community	Other cities	Potosí	Outside the country	Total
Executive	1	39	3	10	53
Supervisor	7	77	10	0	94
Employee	137	218	66	4	425
Worker	527	162	120	0	809
Total	672	496	199	14	1,381

We prioritize the hiring of personnel from the communities in the area of direct influence to occupy the operational positions.

MSC employees by place of residence (%) (405-1)

Place of residence	2015				2016				2017				2018				2019			
	Executive	Supervisor	Employee	Worker	Executive	Supervisor	Employee	Worker	Executive	Supervisor	Employee	Worker	Executive	Supervisor	Employee	Worker	Executive	Supervisor	Employee	Worker
Communities	0.07	3.00	8.00	46.00	0.07	0.50	8.39	39.78	0.07	0.49	9.35	38.33	0.07	0.49	9.68	38.06	0.07	0.51	9.92	38.16
Other cities	3.00	7.00	15.00	12.00	2.56	4.57	17.05	11.50	2.81	4.92	16.74	11.67	2.97	5.30	16.60	11.58	2.82	5.58	15.79	11.73
Potosí	0.21	0.51	2.00	2.00	0.28	0.69	4.50	8.73	0.21	0.77	4.50	8.86	0.21	0.99	4.17	8.83	0.22	0.72	4.78	8.69
Outside the country	0.07	0.14	1.00	0.00	0.69	0.14	0.55	0.00	0.63	0.21	0.42	0.00	0.64	0.07	0.35	0.00	0.72	0.00	0.29	0.00
Total	3.35	10.65	26.00	60.00	3.60	5.90	30.49	60.01	3.73	6.40	31.01	58.86	3.88	6.85	30.79	58.47	3.84	6.81	30.77	58.58
GRAND TOTAL	100%				100%				100%				100%				100%			

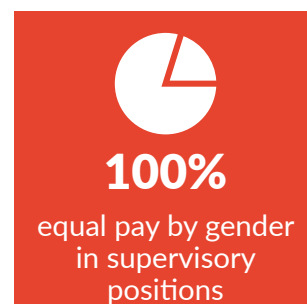


5.3 Gender equality

We comply with existing laws and regulations regarding equal opportunities for men and women and equal pay according to the complexity of the work performed; however, we do not yet have formal policies or procedures regarding gender equality in recruitment.

In 2019, the salary of male workers is 1.25 times higher than the salary of female workers. In executive positions, men's wages are 1.66 times higher than women's wages, and in supervisory positions, the ratio of women's wages to men's wages is 1 (same proportion) (405-2). In general, the differences are due to the characteristics of the pay range, different levels of responsibility and differences in the number of staff, both among men and women.

We comply with existing laws and regulations regarding equal opportunities for men and women and equal pay according to the complexity of the work performed.



Number of MSC employees by place of residence and by sex (2019) ⁽¹⁰²⁻⁸⁾

Level	Sex	Community	Outside the country	Other cities	Potosí	Total
Executive	Female	-	-	3	-	3
	Male	1	10	36	3	50
Supervisor	Female	-	-	8	-	8
	Male	7	-	69	10	86
Employee	Female	25	-	62	13	100
	Male	112	4	156	53	325
Worker	Female	60	-	-	3	63
	Male	467	-	162	117	746
Total		672	14	496	199	1,381









Changes in human resources

In 2019, we hired 14 men and six women. With these hirings, the annual turnover rate reached 4.3% (401-1). The factors explaining the staff turnover were mainly personal reasons (change of job or city, start of own business, etc.).

We want to highlight some of the positive factors that contribute to the permanence of our staff, which is a factor for which we enjoy recognition in the sector and of which we are proud:

- We are among the companies that award the most competitive salaries in the country.
- The benefits package that we offer to our employees (full-time, temporary or under contract) includes rotating work shifts, highlighting that in defined operational areas we have a work schedule of 7 by 7; a delegated health insurance; technical and specialized training; bonuses based on performance and the attainment of goals; commercial opportunities for the procurement of goods and services by staff at preferential prices; and recreational areas in the camp (401-2).
- We apply high health and safety standards for the protection of our employees.
- For these reasons, we have a relatively low annual turnover rate, which contributes positively to the overall performance of the company.

Employees hires 2019						
Sex	Communities	Outside the country	Other cities	Potosí	Total	%
Female 	-	-	6	-	6	3.4
Male 	1	3	7	3	14	1.2
TOTAL	1	3	13	3	20	1.4

Employee reductions 2019						
Sex	Communities	Outside the country	Other cities	Potosí	Total	%
Female 	-	-	10	-	10	0.7
Male 	17	4	23	6	50	3.6
TOTAL	17	4	33	6	60	4.3

About maternity benefits, we comply with the law in force in our country. Women have 45 days of leave before and after the date of birth of their baby. Men have four days of paternity leave on or around the date of their baby's birth. Both men and women receive 100% of their salary during this leave.

In 2019, the retention rate after maternity or paternity leave reached 97% (401-3), i.e. nine women out of ten who enjoyed maternity leave returned to work (one woman's decision not to return to work after her maternity leave was for personal reasons). The 19 men who enjoyed paternity leave all returned to their source of employment after their leave.

After 12 months, the people who came back after maternity or paternity leave remain part of the organization.

5.4 Labor relations

Within labor relations, we support the right to freedom of association and collective bargaining. Thus, we have a workers' union: the Sindicato Mixto de Trabajadores Mineros de San Cristóbal, which was created in 2010 (407-1).

At the end of 2019, only 742 workers were formally affiliated to the union, out of an initial total of 822 workers. However, 816 workers benefited from the collective bargaining with this union in September (102-41).

In relation to the previous year, there was a 9.7% reduction in the number of workers covered under the agreement.

It should be mentioned that the decrease in the number of union members may be due to a number of reasons, including how social relations between union leaders and members are handled; internal management of the union; accountability; and others. However, and without the situation being alien to the company, we respect the personal decisions of the workers regarding their constitutional right to become a member or not of a trade union, and we avoid interfering in that institution's organizational life.

It is important to mention that in Bolivia the Constitution protects the right to union membership of all bodies and levels of companies. However, executive and administrative staff are subject to a limitation for exercising this right, as provided for in the second paragraph of art. 3 of Supreme Decree. No. 07822, which states that "... The legal representatives of employers, management staff or personnel of trust of employers may not be part of union organizations...".

Our approach to labor relations revolves around regular interaction with trade union leaders within a mutually respectful dialogue on workers' needs and joint resolution of any problems that may arise. The core characteristics of the negotiation processes are based on our values and are intended to provide solutions that benefit both parts.



Within labor relations, we support the right to freedom of association and collective bargaining. We have the Mixed Labor Union of Mine Workers of San Cristóbal, which was created in 2010.

Every year we negotiate the collective agreement, which includes salary increases, donations we can grant, and proposals for improvements in health and safety issues, among others.

Agreements signed

Every year we negotiate the collective agreement, which includes general issues, such as salary increases, donations that we can grant based on our financial and legal capacity, and proposals for improvements in health and safety issues, among others (403-4).

In 2018, the San Cristóbal Union of Mine Workers submitted a document demanding that the company make payments for Sunday work and other issues. This led to legal proceedings before the Ministry of Labor and judicial bodies.

Between the months of August and September 2019, we faced a 20-day labor stoppage; the legality of this strike and the resulting arbitral award were both questioned. Subsequently, negotiations started and led to the signing of a series of agreements and a consolidated award from the perspective of both the Ministry of Labor and the judicial bodies (MM4).

In September 2019, we managed to finalize a series of agreements concerning years 2018 and 2019, endorsed by an arbitral award. The following agreements were signed:

September 6th 2019:

- Collective labor agreement

September 18th 2019:

- Collective labor agreement 2018
- Collective wage increase agreement 2019
- Collective labor agreement 2019
- Collective labor agreement on extraordinary payment subject to a condition precedent

As a result of these events, and despite the agreements signed, the union leaders insisted on their position of confrontation with the company regarding the demands concerning 2018 and 2019.

After the strike carried out by the union body, many members decided to leave the union.

Within this framework, our Human Resources and Labor Relations areas have held constant meetings, as well as processes of rapprochement and analysis to address these impasses, always framed in our policies and institutional values.



Activities carried out without signing a collective agreement

We understand that the lack of signing a collective agreement cannot stop the search for improvement in the working conditions of our employees. For this reason, we carry out a series of actions, which we detail below:

Promotions program. We have already developed an internal program for the promotion of workers, which we have again submitted to the Mixed Labor Union of Mine Workers of San Cristóbal.

Insurance. We have taken out private life insurance coverage, so our employees enjoy additional coverage above that stipulated by law. (403-4)

Education and training. We continue to grant university scholarships to the children of our workers, within the framework of the agreements reached.

Health. In compliance with national provisions, we prescribe medication according to medical protocols and the National List of Essential Medicines (LINAME); however, to improve the quality of care as a company, we additionally provide a large number of special medications that are outside LINAME. (403-4)

Road maintenance. We have developed an annual program which includes the maintenance and upgrade of our surrounding roads.

Sports. To the extent of our possibilities and according to the established budgets, we support sports activities such as soccer and wally, in which more than 500 employees take part.

Transport. We have improved transport, increasing the number of buses on both internal routes and to the communities.

Professional development. We organize the courses, workshops and trainings required according to the requirements of each area.

Protection. We deliver PPE and workwear within the framework of applicable laws and regulations and our internal policies.

Union. As in every year, we have respected the freedom of association, recognizing the independence of this body and also recognizing the members of the union who obtained the Ministerial Resolution accrediting them as being in permanent commission, as well as the national leaders.

Christmas. We seek to improve the Christmas baskets for our collaborators and also the gifts for children under the age of twelve.

Carnival. We have established some guidelines for organization of the carnival ch'alla (a traditional Bolivian custom), including the admission of wives and husbands and the non-consumption of alcohol in the mine, in offices and other facilities. At the same time, we seek to strengthen this custom with a focus on tradition and family.

5.5 Employee grievance mechanisms

At MSC we have an open-door communications policy. We encourage our employees to directly share any problem or concern regarding the workplace with their direct supervisors. If the concern involves supervisors, they can take it to the level of a Superintendent or Director, so it would be solved according to the instruction manual for personnel complaints and suggestions. It is important to note that during 2019 no complaints about labor practices were filed through these mechanisms; however, we received communications within the framework of the open-door policy, which were resolved in a timely manner (103-2).

Our Internal Regulations and the Code of Ethics and Business Conduct contain provisions to ensure and promote a harmonious human relationship at all levels of the company, which is strengthened by our Mutual Respect Policy, which clearly states that harassment, discrimination, verbal or physical actions threatening or intimidating anyone are not tolerated.

In 2019, there were cases of consultation that were resolved through the direct intervention of the Labor Relations Unit. Similarly, no incidents related to human rights violations (including discrimination) were reported through the formal complaint mechanisms.

As part of our approach to find procedures to deal with possible complaints of workplace abuse or harassment, we have an internal procedure to guarantee transparency and fairness, as well as protection of the person who makes the complaint. We give complainants the guarantee that they will be heard and that we will follow up on their complaint while preserving their integrity. We also guarantee the right of defense of the person against

whom the report is filed and, according to constitutional rights, this person is considered innocent until proven otherwise (406-1,103-2).

As far as recruitment is concerned, we ensure that all candidates for jobs at our company are of legal age, for which we request submission of the relevant supporting documents. While there is a risk of underage work in parts of the supply chain, we include legally binding provisions in this sense in the contracts with our product and service providers.

5.6 Training and development

Training and support for the continuous improvement of our employees are critical to the success of our operations. For this reason, performance assessments, feedback and salary increases are also an integral part of our effort to promote a better workplace for human talent development.

In 2019, 99% of the workforce subject to annual performance assessments successfully and effectively completed this process, in accordance with established standards. The

Our internal regulations and the code of ethics and business conduct contain provisions to ensure and promote a harmonious human relationship in the company. Our mutual respect policy states that harassment, discrimination, verbal or physical actions are not tolerated.



group of workers that we assess in this process is composed of superintendents, supervisors and workers, of whom 170 women and 1,179 men were assessed (404-3).

Performance assessment by gender and employment category (%)

Category	Male	Female
Employee	100	100
Worker	100	100
Supervisor/Superintendent	99	100

The investment in 2019 for training was US\$ 829,042, which is equivalent to 23,561 accumulated man-hours. (404-1) Compared to 2018, our investment in training was reduced and the number of man-hours shrank. This was due, on the one hand, to the drastic decrease in training activities in the Mine Operation, where the team focused on monitoring operators. On the other hand, there was a smaller number of training events in plant operations and plant maintenance.

Man-Hours of training

	2016	2017	2018	2019
Man-Hours	74,146	71,717	50,890	23,561

The training we promote includes issues related to quality, health, safety and environment, and other technical and specific topics, aimed at the proper performance of responsibilities. The number of courses for employees is defined according to the area of work and the jobs performed.

Training 2019

Category	Total training hours for men	Total training hours for women	Average hours for men	Average hours for women	Combined average training hours
Employees and Workers	17,413.50	1,739.50	16.09	10.61	15.37
Executives	1,700	75	36.96	25	36.22
Supervisory Positions	2,479	154	31.38	22	30.62
Total	21,592.50	1,968.50	-	-	-
Contractors	16,391	1,098	8.9	7.32	8.78

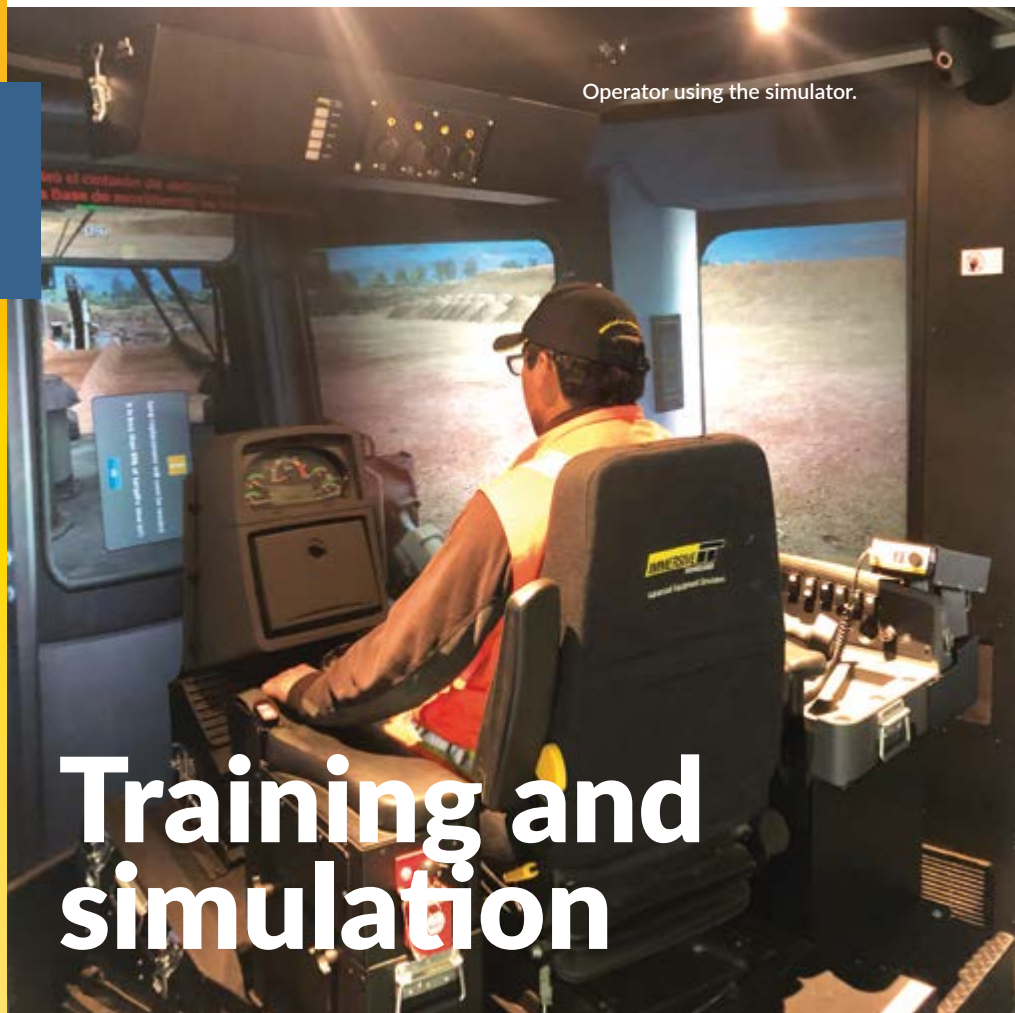
Training and support for the continuous improvement of our employees are critical to the success of our operations.


US\$ 829,042
investment in training



CASE STUDY

Thanks to the use of the simulator in mine operation, we have accomplished over 3.5 million man-hours of work without incidents.



Operator using the simulator.

Training and simulation

In order to train personnel in the Mine Operation area and reduce the risk of incidents in the mining operation, we purchased a PRO3-B IMMERSIVE TECHNOLOGIES simulator, which allows our operators to view topographies in three dimensions (3D) on the screens. These images provide updated physical characteristics of the operation, as well as the actual dimensions of the equipment, enabling practice in conditions that are very similar to the actual situation.

Thanks to the simulator, the trainer can monitor and control simulation sessions and accelerate the learning process of operators that are being trained. Moreover, the trainers can make operational corrections to poor habits or operating errors that entail a risk of incidents or shortcomings in operational skills and/or abilities.

In addition to training for beginners, we make use of simulators for the following programs:

Safety

Tires

Loading cycles

Measuring statistics and evaluating the skills of operators

In addition, we have simulation or conversion kits for trucks, chain tractors, motor graders and hydraulic shovels.

The training data in the simulator are stored in the computer's memory. This information is available in order to obtain statistics on the use of the simulator by day, month and year. Thanks to this information, we are able to know the most common errors and shortcomings and, hence, correct them in order to reduce risks and optimize our practices.

With regard to the duration of the training, it consists of 40 to 70 hours for a new operator. This time may vary depending on development of the operational skills acquired during the process. Depending on the specific objectives to be achieved, the operational correction varies from 10 to 30 hours.

In this way, thanks to the use of the simulator in the Mine Operation area, we have accomplished over 3.5 million man-hours of work without Lost Time Incidents (LTI).

Up to 70 hours of training for a new operator



Lost time incidents (LTI)



Simulator cockpit

5.7 Health and safety

Approach

The safety and health of our employees and workers have the highest priority within our management policy, which is one of our core and intrinsic values. We permanently identify, evaluate and ensure control of the risks related to the safety of our personnel, and our contractors and visitors, in order to prevent health damages and/or deterioration. The actions we carry out in terms of safety and health in our operations respond to the joint construction of a preventive culture.

Health and safety performance

All our efforts to improve our performance in safety and health are deployed through preventive programs, which guide us towards the goal of achieving a preventive culture, following the guidelines of OHSAS 18001 and other international voluntary standards, such as those of the United States Occupational Safety and Health Administration (OSHA) and the United States Mine Safety and Health Administration (MSHA), the American Conference of Governmental Industrial Hygienists (ACGIH), and primarily complying with Bolivian legislation.

The programs implemented in 2019 focus on electrical safety; risk management; IRO-ISOP inspections; industrial hygiene (hazcom, radiation protection and vibration); training; STOP behavioral observation; and strengthening of the contractors.

We have successfully implemented the “Risk Management Program”, which aims to ensure that each area carries out the planned activities to ensure that its critical controls of “unacceptable and/or substantial” risks are optimally implemented in the areas of work (training, inspections, certifications and other activities must be proven not only in documents but in the field).

Our “MSC Golden Rules” program is reinforced by the Golden Rules and Operational Inspections (IRO-ISOP) program, which consists in monitoring and follow-up of the strict compliance of each golden rule within our company. At the same time, every day the teams hold safety reflection and engagement meetings at the beginning of each shift, in order to review, remember and communicate the control measures, rules and instructions that must be implemented during their daily activities, in order to reduce the risk of incidents.

Among the tasks that we have implemented and that are aligned with the ICMM (International Council on Mining and Metals) Principles, we can mention: reformulation of the occupational health and safety programs, awareness-raising and socialization of the Golden Rules, improvements in the monitoring and control of industrial hygiene results, and strengthening and awareness-raising concerning road safety measures.



Safety performance (403-2)

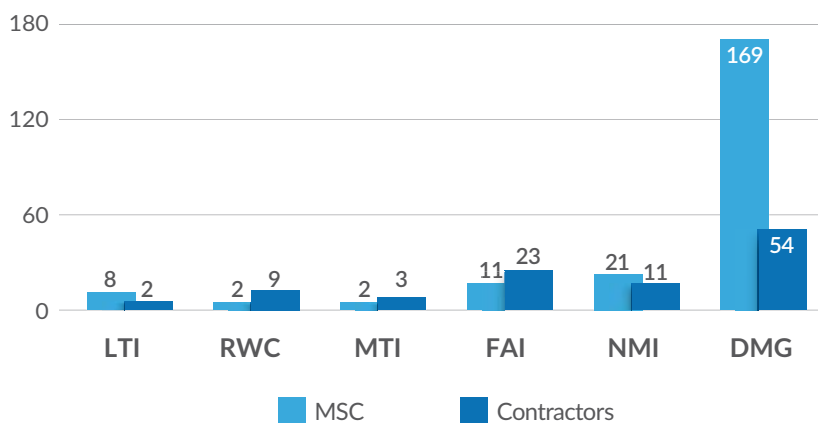
OSHA standards - Frequency index (Injury rate)	2015	2016	2017	2018	2019
Workers	0.41	0.33	0.29	0.57	0.79
Contractors	1.11	0.74	0.91	0.71	1.32
Fatalities	1	0	1	0	0
MSC employee absenteeism rate (OHS-related incidents)	0.89	0.86	0.28	0.04	0.07
Contractor absenteeism rate (OHS-related incidents)	1.15	1.01	1.67	0.05	0.02

The incidents in 2019 mostly occurred as a result of the non-implementation of critical safety controls because the attitude of “Risk Normalization” became widespread from the supervisory level. As an effect of this normalization of deviance, the frequency index increased in relation to 2018. Therefore, we considered it was advisable to revise and strengthen several control measures, such as the suggested controls for electrical safety, to emphasize the responsibility of supervision in prevention matters and to review compliance with the activities planned in the Risk Management Programs.



Below is an overview of the number and type of incidents recorded in 2019:

Number and type of incidents 2019



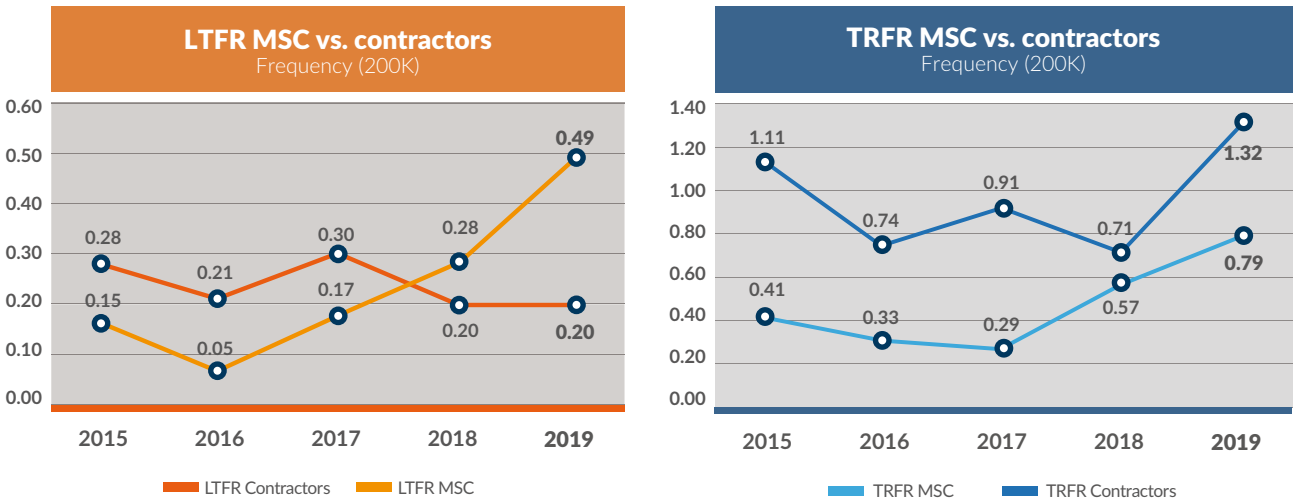
LTI: Lost Time Injury
 RWC: Restricted Work Case
 MTI: Medical Treatment Injury
 FAI: First Aid Injury
 NMI: Near Miss
 DMG: Material Damage

In the graph above, a “near miss” is an unwanted event, which, under slightly different circumstances, could have resulted in injury to people, damage to property or loss in the process; an unwanted event that may result or results in loss.

“Material Damage (DMG)” occurs when there is an accident and the damage (to the equipment itself and/or to third parties) corresponds to a material object or asset of the company; that is, there is no personal injury.

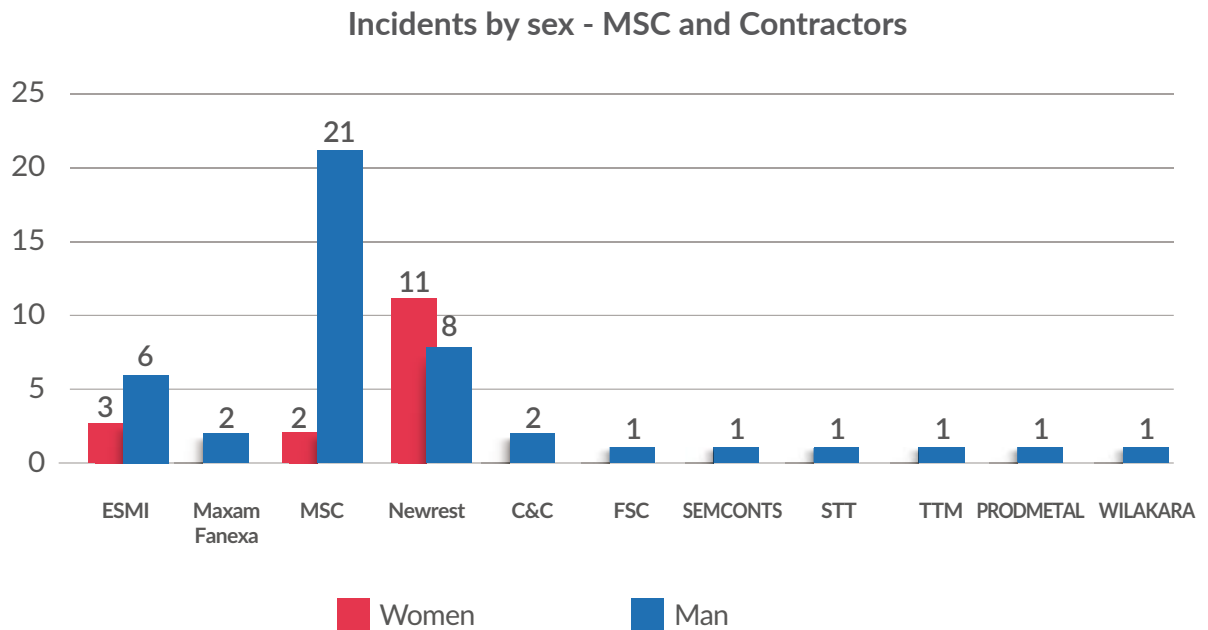
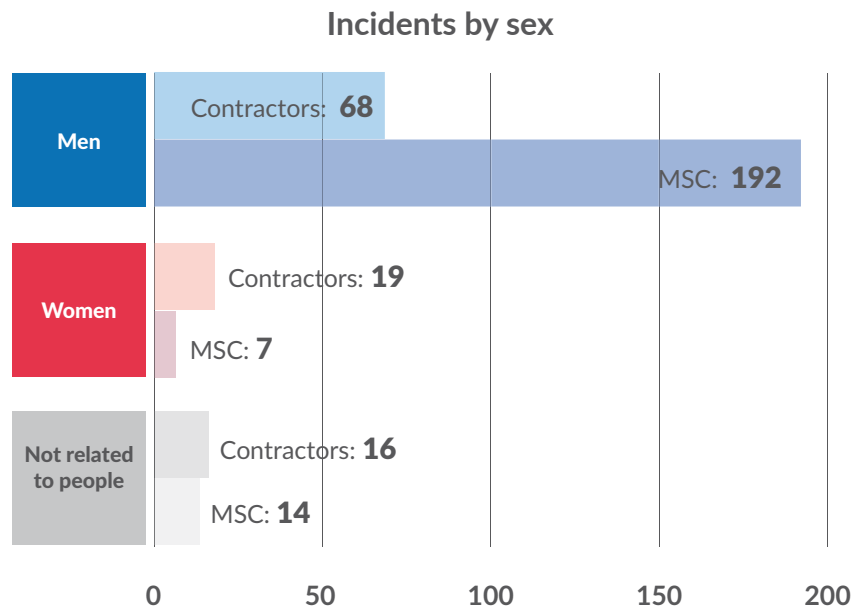
Lost Time Frequency Rate (LTFR) - Total Recordable Frequency Rate (TRFR) of MSC and contractors

For statistical monitoring and comparison purposes, we present the following information since 2015:





The following graph refers to all incidents reported in 2019 by sex and also shows detected incidents that are not related to a direct person, e.g. failure in part of the blasting process or when detecting damage without anyone being directly responsible.



In incidents involving injuries to persons, we have recorded that 74% of them involved men (45 events) and 26% women (16 events).



CASE STUDY

Contractor strengthening program



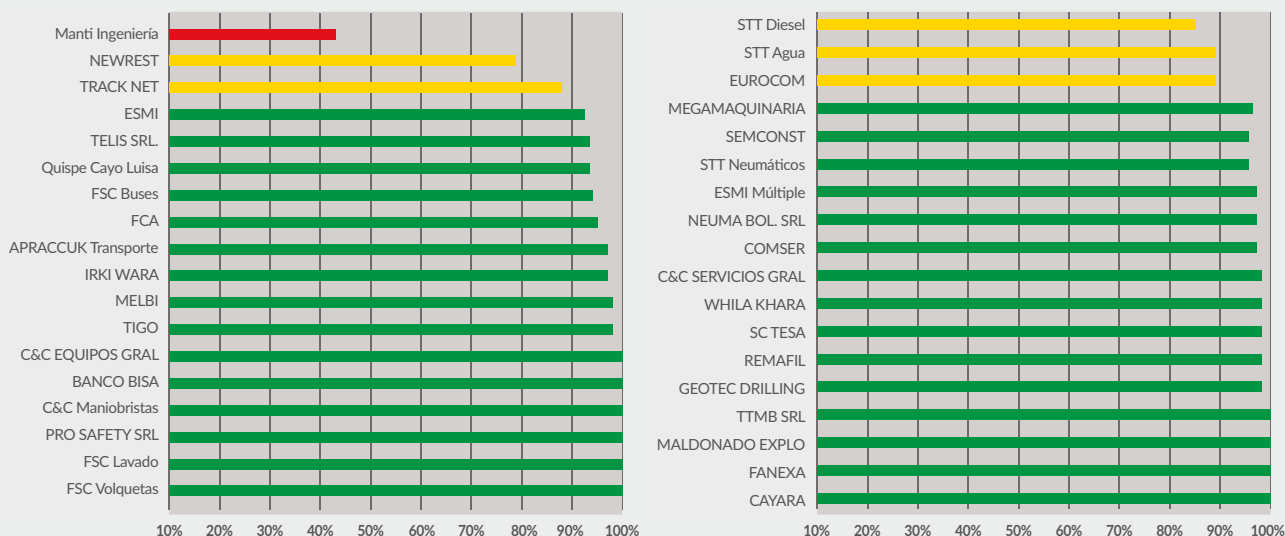
**Our corporate
goal is to bring
the contractors'
performance to
the same level
as ours.**

One of our strategic objectives is to improve OHS (Occupational Health and Safety) performance. In order to achieve this, we have developed the program for strengthening the contractors, which also focuses on our corporate goal of bringing the contractors' performance to the same level as ours. In this sense, our industrial safety area has worked in coordination with the contract supervisors and staff of the contractors.

In 2019, we carried out several central program activities that enabled us to achieve the stated objective. This effort involved an average of 41 contracts in effect and 38 contractors throughout the year.

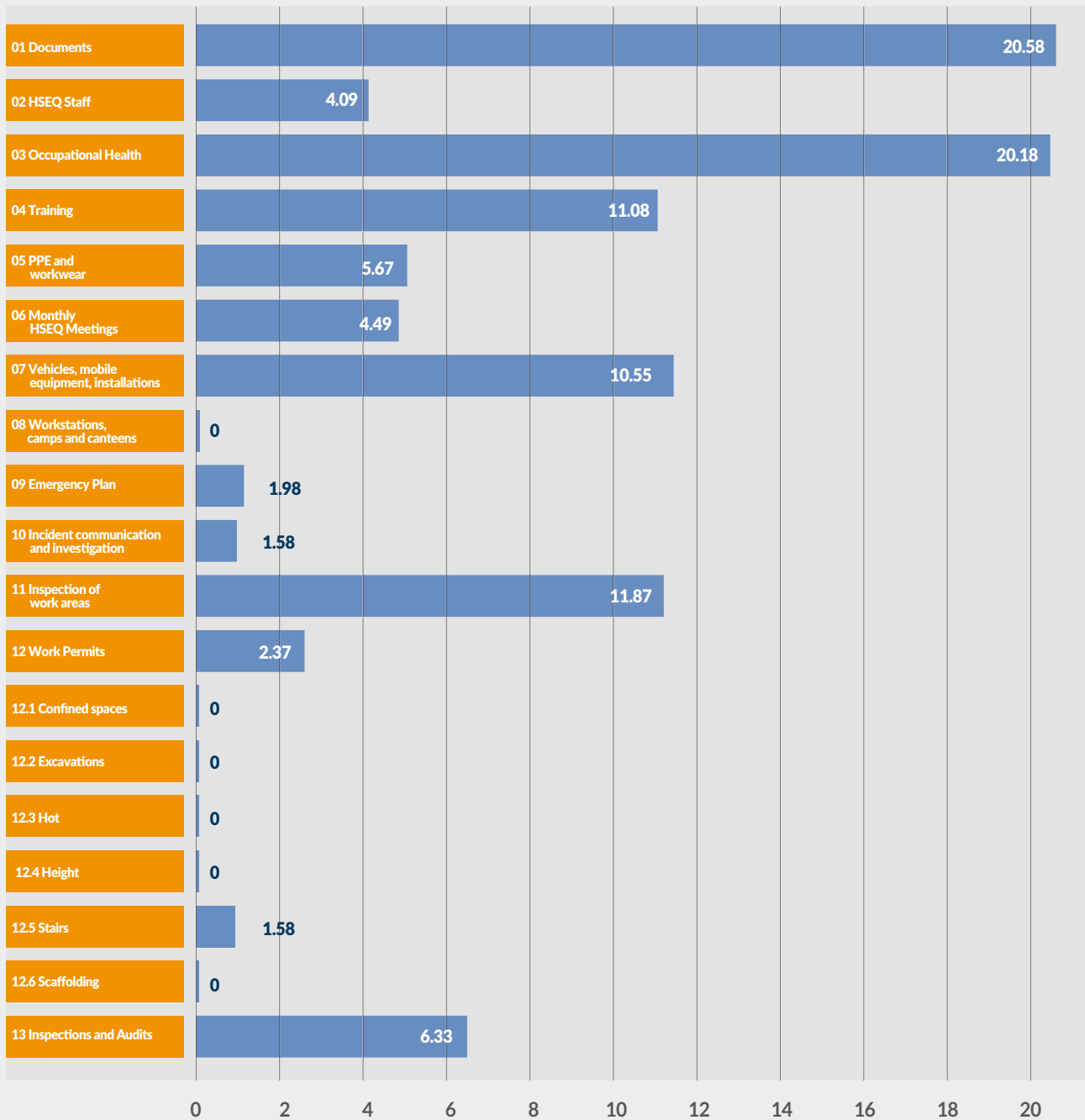
The following activities were carried out:

- **Six-monthly checks of compliance of the requirements of the manual on safety, health, environment and quality for contractors:** We conduct over 80 documentary inspections of 38 companies every six months. The compliance was reflected in the performance rating of the contract.



- **Monthly monitoring of the contractors:** Every month we monitor progress of the opportunities found; in addition, we monitor the most recurrent issues of non-compliance, such as the development and implementation of programs related to risk management, inspections, training, submission of monthly reports, occupational health examinations, incident reports, etc.; these results were shared with the General Management as part of the report of indicators by area.
- **Monthly coordination meeting between MSC and the contractors:** A space to communicate the most relevant aspects of interest between and to the contractors, where explanations are given on good practices and improvements, the level of performance, common causes of non-compliance with performance, accident indicators of contractors, etc. In 2019, the contract supervision had a much higher participation and level of involvement than in previous years (50% more), participating in accordance with the schedule established by the industrial safety area.
- **Recognition of acceptable performance in industrial safety:** On 28 April, as part of the World Day for Safety and Health at Work, awards were given to contractors that achieved a 100% performance in 2018.
- **Revision of entry requirements for new contractors:** Seven new contracts were signed with contractors, carrying out the initial check of compliance with the requirements of the manual on safety, health, environment and quality for contractors. This encouraged the companies to have and comply with the minimum and necessary safety guidelines before starting operations.
- **Focus on the main causes of performance breach:** Every month, we monitor the main recurrent causes of contract breach. We also carry out several activities to improve the performance of the company, always with the participation of the contract supervisors. By the end of the year, the contractors managed to reach an average of 94% in overall compliance.
- **Review of occupational health items:** During 2019, we made a meticulous effort to monitor the occupational health requirements that workers must meet before working with our company.

Non-compliance by category (%)

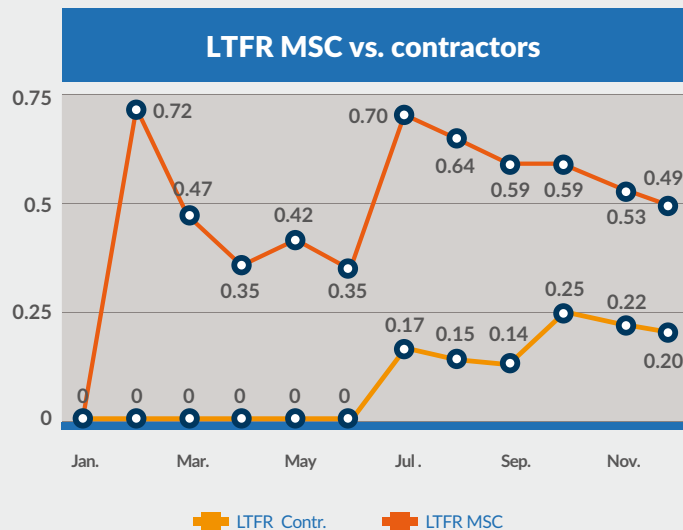


- **Review of documents related to contractor management:** Our areas of industrial safety and occupational health carried out documentary and field reviews of documents related to Bolivian legislation and occupational safety and health at work.
- **Training of contractor personnel:** As a result of the analysis of training needs; weaknesses identified during inspections; and assessments made every month and in previous years, training courses for the personnel of contractors were scheduled. To this end, the entire line of supervision, safety officials and workers were involved. One of the most important courses was on the preventive observation (STOP) safety methodology, which aims to raise awareness on the importance of adopting safety with ownership by all. We should underline the participation of the contract supervisors who accompanied the activities and set an example.

Achievements 2019

Despite the ups and downs we went through, and after several serious incidents involving contractors in 2018, in 2019 we achieved the goal set by our management, in relation to achieving that the performance of the contractors is equal to that of our company. Thus, as of December 2019, the contractors reached a LTFR of 0.20, which is lower than that of MSC.

Lost Time Frequency Rate (LTFR)



In 2019, the contractors reached a LTFR of 0.20, which is lower than that of MSC. This achievement motivates us to continue working to reach better performance indicators.

This achievement motivates us to continue working to achieve better performance indicators, always in collaboration and conjunction with our contractors. We are aware that there is a long way to go still; however, we are confident that we are moving in the right direction.



Our health management system is certified in accordance with healthy business standard NB 512001. This makes us the only mining company in Bolivia that has this certification.

Pre-work examinations applied to the

100%

of workers and an annual health check.

We carry out 1,358 regular health checks, reaching 98.33% of our workers.

99.53%

Audiometry coverage among workers exposed to occupational noise.

Health

Following up on the work of previous years and always in line with our strategic objectives, we implemented three health management programs.

- Occupational health program
- Medical care and emergency program
- Health prevention and promotion program

Our health management system has been certified since 2014 in accordance with healthy business standard NB 512001. This makes us the only mining company in Bolivia that has this certification.

Occupational health program

The Occupational Health Program is aimed at monitoring the health of our employees and the development of strategies for health prevention and promotion in our workplace. This program has the following lines of action:










Health surveillance of the worker, aimed at determining and monitoring the level of fitness of our workers. The latter always considers the relationship between their state of health and the correspondence with their duties, applying pre-work examinations to 100% of workers and annual health checks. This control consists of a comprehensive evaluation, aimed at monitoring the health status according to the job and the risks to which they are exposed. In 2019, 1,358 regular health checks were carried out, reaching a coverage of 98.33% of our workers..

Prevention and control of worker health problems, which is a line of action aimed at providing timely response to the main health problems that arise or may arise. These actions consider the occupational risks to which our employees are exposed, as well as their bio-psycho-social conditions.

Among the programs that stand out in this area, we have the prevention and control of skeletal muscle disorders, cardiovascular risk and erythrocytosis, in view of the focus on reducing the high prevalence of these affections (403-3).

Promotion of the worker's health aimed at promoting healthy lifestyles based on self-care in order to improve the workers' health status. To this end, we have a matrix of health information and education contents, which are disseminated through our programs, health points and health services. The dissemination of this material goes hand in hand with measures to assess the knowledge, attitudes and practices that allow us to measure the impact on behavior changes among our workers.

Results of the diagnosis and application of health programs

 Cardiovascular Risk (CVR) Prevention and Nutrition Program (403-3)	 Program for the prevention and control of skeletal muscle disorders (SMDs) (403-3)
<ul style="list-style-type: none"> - Workers with cardiovascular risk not in accordance with age: 25.35%. - Workers with cardiovascular risk not in accordance with age included in the program because of their CVR status > 10%: 100%. - Workers with cardiovascular risk not in accordance with age and CVR > 10% under specialized control: 47.51%. 	<ul style="list-style-type: none"> - Workers with SMDs: 41.27%. - Workers with SMDs included in the program: 30.53%.
 Program for the prevention and control of erythrocytosis (403-3)	 Comprehensive health program for working women
<ul style="list-style-type: none"> - Workers with erythrocytosis: 60.64%. - Workers with erythrocytosis included in the program: 100%. - Workers with erythrocytosis included in the program under specialized control: 53.33%. 	<ul style="list-style-type: none"> - Female workers with gynecological control (including pap smear test, mammography and bone density): 72.99%.
 Hearing conservation program	 Vision conservation program
<ul style="list-style-type: none"> - Percentage of workers exposed to occupational noise: 30.85%. - Coverage of audiometries among workers exposed to occupational noise: 99.53%. - Zero cases of hearing loss due to occupational noise. - Audiometry control to verify fitness in vehicle handling, work at heights or work in a confined space: 828 workers. 	<ul style="list-style-type: none"> - Coverage of eye checks for workers: 84.89%. - Provision of safety corrective glasses: 152 units.
 Immunization program	 Lead control program
<ul style="list-style-type: none"> - Immunization coverage achieved among workers according to the vaccination schedule: 92.40%. - Coverage of influenza vaccination: 84.14%. 	<ul style="list-style-type: none"> - Coverage of evaluation of lead in blood in workers: 98.33%. - Zero cases of lead poisoning.
 Prostate cancer prevention and control program	
<ul style="list-style-type: none"> - Workers aged 40 and over with Prostate-Specific Antigen (PSA) test: 97.57%. 	

Our programs achieved significant coverage in 2019. Therefore, we can affirm that our health system has been developing successful and appropriate protection initiatives. Thus, we have managed to improve our capacity of following up the workers included in our prevention and control programs, which in turn leads to benefits in terms of improvement of their overall health status.

As in previous years, in 2019 we did not identify professional diseases (403-2), which was the result of effectiveness of our workers' health surveillance and the focus on health prevention and promotion measures.

During 2019, 5,211 days of temporary disability for health reasons were recorded; 79% are related to common illness and accidents that are not occupational; 11% are related to maternity; and 10% are due to accidents in the workplace. It is important to mention that there were no days lost due to occupational diseases.

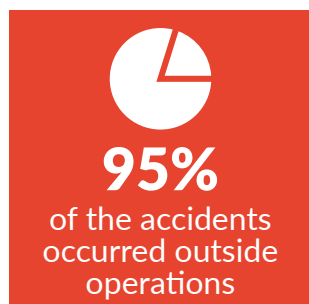
The overall rate of absenteeism for health reasons of our working population is 1.83, with 3 being the maximum limit set. In addition, we can indicate that the rate for men is 1.67 and the rate for women is 2.83.

Our challenge for the next few years will focus on increasing coverage of the health programs and getting our workers to adopt healthy lifestyles. We do not doubt that both are the most effective measures for health protection.

Medical care and emergency program

During 2019, we worked on the management of medical emergencies, the follow-up of chronic patients and the improvement of the quality of the health services. We can report the following achievements:

- 447 cases of worker accidents, which occurred in and out of the workplace, were dealt with. Of these cases, 95% occurred outside the working environment.
- Distribution of the first-aid manual as a permanent form of training our staff.
- Have a network of health services that includes all levels of resolution available in Bolivia. This network has generated 30,382 external consultations, 33% of which are workers, 50% are beneficiaries, and 17% the uninsured population. There have also been 404 hospitalizations, of which 36% concern workers, 62% beneficiaries, and 2% the uninsured population. Finally, 221 surgeries have taken place, which are distributed as follows: 43% in workers and 57% in beneficiaries.
- Individual follow-up of 453 chronically ill patients.
- Maintain the levels of accreditation established by the government in the health centers in Toldos, San Cristóbal, Culpina K and Vila Vila.
- Strengthen the network of pharmacy services, with the incorporation of mechanisms for monitoring, continuous improvement and permanent supply.
- Consolidate the organization and functioning of technical committees on biosafety and epidemiological surveillance, accreditation and quality management, safe motherhood and evaluation of clinical records and therapeutic drugs.
- Achieve levels of satisfaction of 80% among health service users.



Health prevention and promotion program

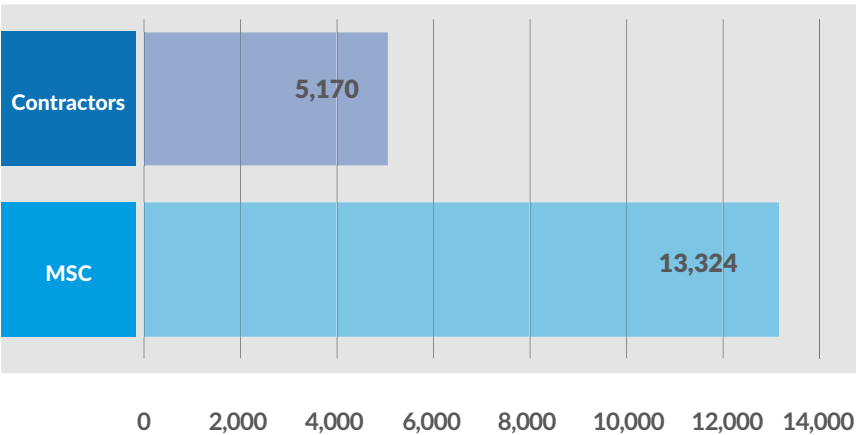
In 2019, we implemented the following programs in the communities of San Cristóbal, Culpina K and Vila Vila:

- **Healthy child control program.** This program targets 18 children under 5 who go to the nursery school in San Cristóbal. It comprises monitoring of the growth and development of the children, the timely identification of prevailing diseases and the development of preventive measures through information and education for self-health care.
- **School health program.** Aimed to develop health promotion activities for the benefit of the primary school children by means of nutritional, medical and dental controls; educational talks to parents; and technical guidance to teachers. In total, 660 children were evaluated.
- **Safe and healthy motherhood program.** During 2019, we monitored 61 pregnant women, through prenatal controls, delivery care and newborn care, as well as post-delivery care. The target population of this program is the female workers, female beneficiaries and pregnant women from the three communities in our area of operations.

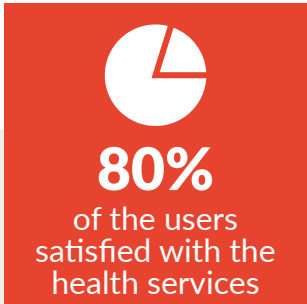
Health and safety training

We have taken on a commitment to the health and safety of our workers and, within the firm intention to provide an accident- and injury-free workplace, we offer a series of training courses that are related to health, safety and industrial hygiene.

Man-hours of training in health and safety 2019



In the communities of San Cristóbal, Culpina K and Vila Vila, we implement programs focusing on healthy children, school health, and safe and healthy motherhood.



During 2019, we organized 346 courses so that the people joining the company received the necessary knowledge on safety and health. We accumulated a total of 18,494 man-hours, both regarding our personnel and regarding the contractors.

These courses were distributed over the following topics:

- Isolation
- Driving at the mine site
- Work permits (height, confined spaces, excavations and hot work)
- Defensive driving
- Risk analysis at work (ART, in Spanish) / Previous work verification (VPT, in Spanish).
- Induction Health and Safety update
- Defensive driving

Providing training on these issues ensures that we improve the skills of both our own personnel and that of our contractors, which has a direct impact on risk reduction and, therefore, incident reduction.

Industrial hygiene program

Our industrial hygiene program brings added value to the safety of the workers and the company. Thus, through previously analyzed, defined and implemented activities, it is possible to anticipate, recognize, evaluate and control the exposure to occupational risk agents, in order to ensure adequate industrial hygiene conditions for all operational activities.

This program is fundamentally preventive and is aimed at avoiding occupational illness, promoting the well-being of our workers; ensuring healthy working conditions; and complying with national regulations and international standards.

Thanks to the technical knowledge acquired by industrial hygiene personnel over the past five years, in 2019 our team was able to realize the challenge of implementing new programs. These include the Hazard Communication Program (HazCom) and the Radiological Protection Program (with measurements in operational areas), both aligned with (voluntary) international standards and regulations, and updates in the field of occupational health and hygiene (OSHA, ACGIH, NIOSH). To meet the standards, the purchase of radiation measurement equipment in micro-detection ranges has been indispensable.

After the last monitoring of Occupational Risk Agents in 2019, we have managed to establish a clearer position in terms of worker health protection, updating Occupational Exposure Limits to much more demanding levels in terms of noise and silica, which is described in the hearing conservation and respiratory protection programs. Based on the monitoring results in each year, actions are taken according to the comparison to the OEL (Occupational Exposure Limit).

If this value expresses overexposure, the Similar Exposure Group (GES, in Spanish) is included within the relevant programs in order to manage controls independently of the identified ORA (with the potential to cause long-term occupational disease).



18,494

man-hours, in
safety and health
training



Any result that identifies an overexposure is validated immediately. First, field observations are reviewed; second, data are analyzed statistically and, finally, new samples are taken. This whole process is developed in order to allow an objective confirmation and thus generate a higher level of reliability of the data.

In the following table, we detail the number of samples taken in the last three years with regard to the occupational risk agents monitored in line with the annual planning.

Samples taken for occupational risk agents (ORA)

	Mine				Plant				Support areas			
AGENTS	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
Noise	37	79	38	18	90	116	113	99	27	60	41	21
Breathable dust	19	24	18	11	38	44	35	37	19	22	14	12
Breathable silica	19	24	18	11	38	44	35	37	19	22	14	12
Lead	14	24	12	7	43	58	50	51	1	19	12	1
Metal fumes	N/A	2	1	2	N/A	1	4	4	N/A	1	2	3
Arsenic	N/A	17	9	N/A	N/A	30	20	9	N/A	N/A	12	2
Acid gases	N/A	N/A	N/A	N/A	9	13	N/A	15	N/A	N/A	N/A	N/A
DPM (Diesel Particulate Material)	N/A	8	5	6	N/A	N/A	N/A	N/A	N/A	5	7	5

Note: The change in the number of samples is implemented based on evaluations of past results, incidents and specific requirements (ORA), and the numbers reflected in the annual monitoring plan.

Hearing conservation program

Focusing on the prevention of hearing loss caused by noise at work, we will indefinitely maintain the hearing conservation program, which promotes a safe environment for staff exposed to noise levels above Occupational Exposure Limits (OELs).

In compliance with NTS-002/17 and in line with international ACGIH standards applied to the hearing conservation program, we have updated the OELs for noise. This task required a review of the relevant instructions and the program itself, for which we defined the following actions:

- Measurement of occupational noise levels through personal dosimetry.
- Inclusion of personnel evaluated by area into the hearing conservation program.
- Administrative controls and personal noise protection equipment controls.
- Training and education of the worker in use, protection and final disposal.
- Personal communication of results.
- Presentation of results by area to staff and supervision.
- Annual audiometry tests for exposed workers.
- Survey of the state of the noise maps in the different areas.

Respiratory protection program

We seek to prevent occupational respiratory diseases and protect our personnel who are exposed to levels of chemical agents above Occupational Exposure Limits (particles, gases, vapors, metallic fumes, etc.).

In accordance with current legislation according to Annex D of NTS-008/17 and updates to OSHA standards regarding permissible limits for chemicals, we have updated the OEL for silica by applying it in the respiratory protection program and updating our relevant instructions. To achieve this, we have defined development of the following actions

- Measurement of chemical agent levels through personal sampling.
- Inclusion of personnel evaluated by area into the respiratory protection program.
- Training in relation to respiratory hazards, limitation of use and maintenance of the respirator.
- Protocols for use, cleaning, disinfection, storage, inspection, repair and disposal.
- Personal communication of results.
- Presentation of results by area.
- Quantitative test of adjustment of the respirator and delivery of the card with the result obtained.

Emergency preparedness and response

The work program of the Emergency Response Unit includes planning, preparedness and response to industrial, community and third-party emergencies. Simultaneously, we verify that all emergency response elements are available in the company (passive and active equipment) to ensure an effective response in the event of an emergency.

Emergencies

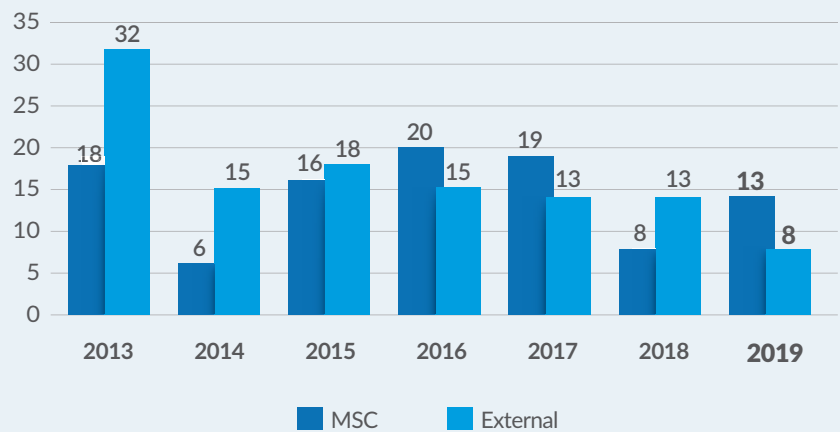
During 2019, 21 events were attended (8 offsite or external and 13 in our area of operations). There is still a predominance of the number of people injured in external events, totaling 20 people for this year. Unlike 2018, there were no emergencies with contractor personnel.



The recurrent emergencies were fires; three of them in the vicinity of the operation, with no injuries and only material losses. In these events, thanks to the training provided to staff of the organization and the emergency response group, the emergency communication process and the first response were efficient and fast.

In February, we had to attend a more serious rescue in the plant area, due to an arc exposure and resulting electric shock by contact with the medium-voltage transformer. This situation put to the test the training and response speed of the staff and ended with an optimal result (the worker's life was saved). This emergency also gave us opportunities for improvement and enrichment of the training for staff working directly with electrical installations and the associated risks.

Number of emergency events attended 2013-2019



Drills

It has been shown that the frequent exercise of the measures and steps to be taken in an emergency reduces the response time and adequately prepares staff, familiarizing them with the use of communication tools and the first intervention, which is essential. Beyond complying with a legal requirement, our annual drills program aims to prepare us adequately for any emergency.

This program covers seven emergency scenarios, covered by ten events throughout the year. They are divided into non-operational (evacuation), operational and office events. They all cover our different operational areas, including the administrative offices in the cities of La Paz and Potosí.

In 2019, one outstanding event was the aircraft emergency rescue exercise, with emergency training for crew in the identification of emergency exits, intervention procedures and forced entries.

The annual program included the following scenarios:



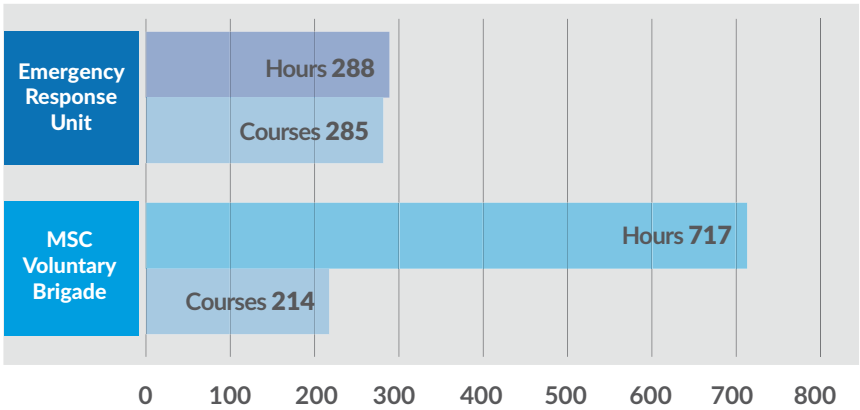
Inspections and training



In 2019, a total of 466 inspections were carried out of the active and passive emergency systems, and an average of 95% of operational availability of the equipment and tools needed to respond to emergencies was achieved. This action is reflected in an annual schedule of inspections of 151 buildings, subdivided into four sectors (Mine, Toldos, Plant and Aguirre). The emergency workers perform checks of all areas on a quarterly basis and follow up on monthly inspections carried out by the areas, with the aim of raising the level of compliance. In 2019, the inspections of active and passive systems yielded a compliance percentage that increased from 18% to 34%.

During 2019, 20 courses have been developed in emergency and fire prevention and control plans, aimed at training 455 people, with a total of 1,365 hours of theoretical/practical training.

Training of the Emergency Response Unit and the MSC voluntary brigade



To strengthen our overall training program and raise awareness of what the rescuers' work entails, we included the “One Hour Fireman” campaign. We made presentations to different areas of the organization, in which staff briefly receive instructions on the use, assembly and application of a complete suit to combat structural fires. This exercise includes light physical activity using the outfit, as well as a review of the measures to be taken in case of evacuations and an emergency report. This activity has received very positive feedback from the participants.

On the other hand, in 2019 we completed the mechanical installation and delivery of a fire simulator aimed at scaling up the training of personnel of the Emergency Unit and later the Voluntary Brigade Members. Instructors certified by the National Firefighters Academy of the Republic of Chile collaborated with the design and start-up of the service, as well as the training in use. This new equipment allows us to continuously improve our fire suppression tactics and strategies since the practice with controlled live fire is helpful to understand the changing behavior of this phenomenon on the ground.



Our emergency response unit supported in the Bolivian region of the Chiquitanía.



In 2019, the Mixed Committee of our mining operation was made up of 52 members: 30 representatives of the workforce and 22 members representing the employer.

In August 2019, honoring our commitment to the well-being of the country, we decided to send the personnel of our Emergency Response Unit to the Bolivian Chiquitanía region (municipality of Concepción, province of Ñuflo de Chávez in the department of Santa Cruz). This team worked there for seven days, helping to contain the wildfire that was a national emergency for several months.

During this contingency, we participated as collaborators of the groups deployed onsite by the state agencies in charge of the response. This kind of situation was new for us and did not only lead to important learning thanks to the contact and exchange with other rescuers onsite, but it also allowed us to contribute to the country and the local communities in a very different scenario than what we are used to.

Hygiene, occupational safety and wellbeing mixed committee

In view of the size of our company and the volume of our staff, we have the legal obligation to set up the Hygiene, occupational safety and wellbeing mixed committee, whose functions and responsibilities are described in Decree-Law 16998 “General Law on Hygiene, Occupational Safety and Wellbeing” and in Ministerial Resolution No. 496/04 “Regulation for the Establishment of Hygiene and Occupational Safety Mixed Committees”.

However, we go beyond fulfilling the requirements and obligations of current legislation, as we encourage ongoing participation and promotion of safe work and care for our staff at all hierarchical levels.

The Mixed Committee is composed jointly and equally of representatives of the employers and the workers, and is made up of a chairperson, a secretary and voting members.

In 2019, the Mixed Site Committee (mining operation) was made up of 52 members: 30 representatives of the workforce and 22 members representing the employer. The La Paz Mixed Office Committee was composed of a total of eight members: four representatives of the workforce and four members representing the employer (403-1).

Due to the existence of work shifts and in order to have a representation of each of them in the committee, in 2019 the decision was taken that each shift should be represented by one incumbent member and one deputy member.

The main functions and responsibilities of the Mixed Committee are:

- Comply with and ensure that the company complies with the General Law on Hygiene, Occupational Safety and Wellbeing, laws in effect with regard to safety, as well as the technical provisions of the Mixed Committee.
- Permanently inform about the work environment conditions, the operation and maintenance of machinery, equipment and personal protection implements, and others in relation to hygiene, occupational safety and wellbeing in the workplace.
- Know and analyze the causes of accidents in the workplace and occupational diseases that occur in the company and propose possible technical solutions.
- Monitor and evaluate documentary records and report occupational accidents and diseases.
- Ensure that all workers receive adequate instructions and orientation in the field of hygiene and occupational safety, encouraging dissemination and training activities in order to maintain the workers' interest.
- Submit quarterly reports of meetings to the Directorate General of Industrial Safety, which will indicate the degree of compliance or non-compliance with the legal provisions or agreements reached.
- At the end of the year, the Mixed Committee is required to prepare a final report on the activities carried out, as well as the measures for the prevention of occupational risks and diseases that were taken within the company. It is also required to submit the report of the planned activities of the four commissions: ISOP/IRO commission, STOP commission, commission of work at heights and in confined spaces, and communication commission.

THE MIXED COMMITTEE AT SITE IS COMPOSED BY

52 members:

**30 representatives
of the workforce**

**22 members
representing the
employer**

Establishment of commissions	Representatives of workers	Representatives of employer
ISOP/IRO commission	8	6
STOP commission	7	5
Commission of work at heights and in confined spaces	8	6
Communication commission	7	5
TOTAL	30	22

We acknowledge the work of all Mixed Committee members, particularly because of the responsibility they took on and their commitment to safety of the company and its collaborators in accordance with the action plans in each of the commissions.

Our operational activities are based on the identification and assessment of risks; on the mitigation and remediation of negative impacts; on the application of standards and protocols for the monitoring of environmental factors.

6 Environment



Zero significant spills (discharges of hazardous substances in a quantity equal to or greater than 2,000 l)



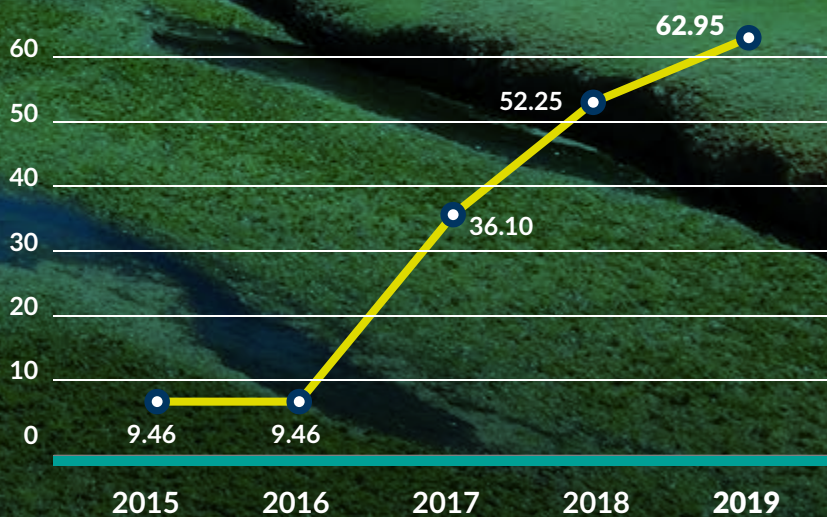
Total greenhouse gas (GHG) emissions of 224,227 tCO₂eq



We recovered 5.95 million m³ of water, representing 72.38% of the water used throughout the production process.

ODS MSC

Total rehabilitated accumulated area (ha)



Approach

Our environmental management system is based on compliance with current regulations, the care and rational use of natural resources, the application of good environmental practices and our commitment to surrounding communities. Our operational activities are based on the identification and assessment of risks; on the mitigation and remediation of negative impacts; on the application of standards and protocols for the monitoring of environmental factors, thus generating credibility and trust before environmental authorities and other stakeholders (102-11).

In 2019, our good environmental practices continued to focus on efficient water use, the implementation of measures to reduce dust dispersion and the rehabilitation of areas disturbed by mining operations.

We comply with all environmental prevention and control standards established by the Bolivian government and with international standards adopted in the company's environmental management system, such as permissible soil quality limits (Canada, Argentina), air quality monitoring (Environmental Protection Agency of the USA), GHG emissions (IPCC, Intergovernmental Panel on Climate Change), cyanide handling agreements and others.

We receive regular inspection and verification visits by governmental, sectoral and departmental bodies. We also carry out internal and external audits to verify compliance with legal obligations and applicable standards.

In 2019, there were no environmental incidents to be reported to the competent Environmental Authority for the activities of our company. Nor were any fines or non-monetary penalties imposed on us for not complying with environmental laws or regulations (307-1).

Our good environmental practices are focused on: the efficient use of water, the implementation of measures to reduce dust dispersion and the rehabilitation of areas disturbed by mining operations.



environmental incidents



environmental penalties

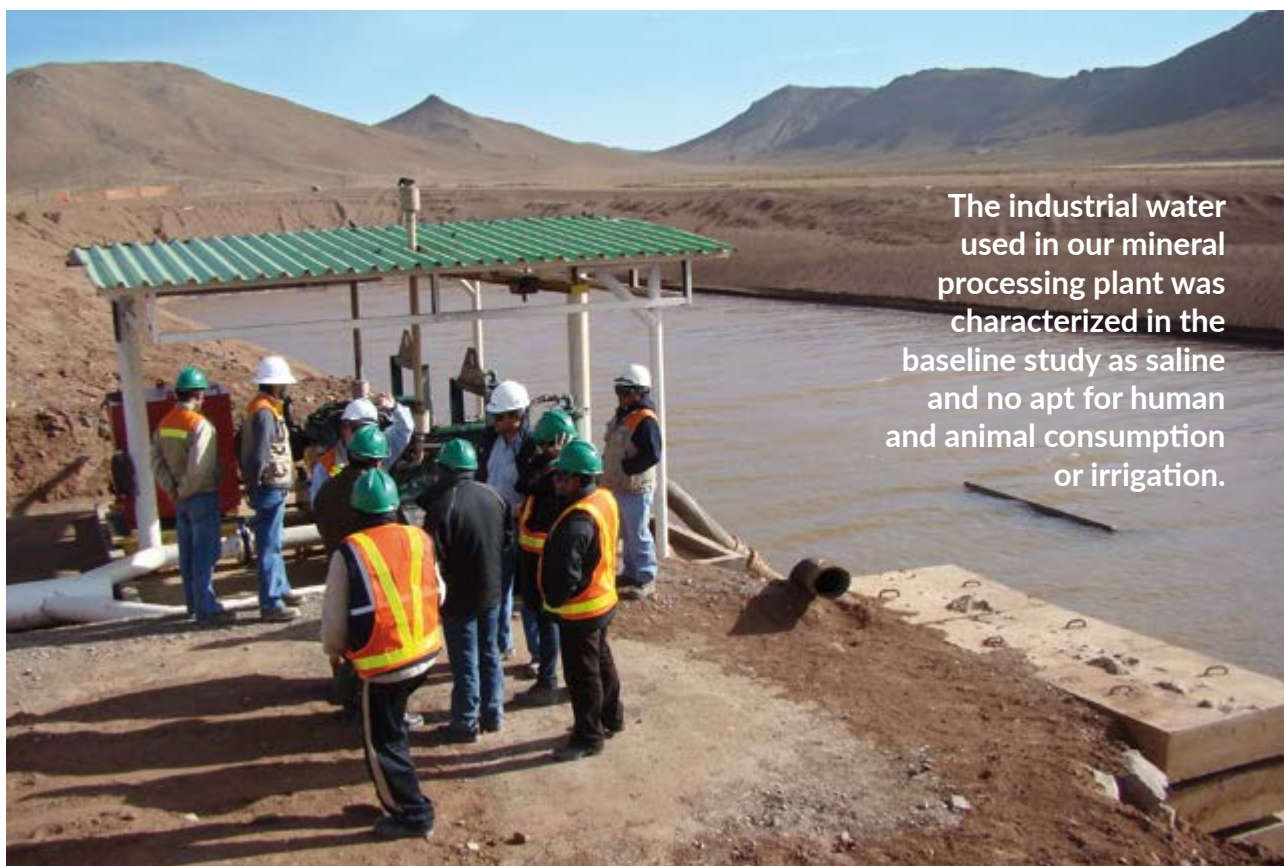
6.1 Efficient use of water (303-1, 303-2)

The industrial water used in our mineral processing plant comes from the pumping in the northern and southern well fields of the Jaukihua aquifer, located 10 km southeast of the mine. In the baseline study, carried out prior to construction of the mine, this water body was characterized as saline and not apt for human and animal consumption or irrigation.

Subsequent studies confirmed that Jaukihua is a non-confined saltwater aquifer that stores approximately 366 million cubic meters, and that is recharged. It is therefore sufficient to supply water for the production during the mine's years of operation.

The Jaukihua aquifer is not part of and is not adjacent to national or international protected areas and, as a deep groundwater source, it does not affect other surface water bodies. The results of monitoring fauna and flora throughout the years of operation confirm that the conservation of local biodiversity and endemic or protected species do not depend on this aquifer. The quality of the groundwater stored in the aquifer makes it a source of no importance for other activities of the surrounding communities. Nevertheless, we maintain a policy of rational use and responsible management of this water resource.

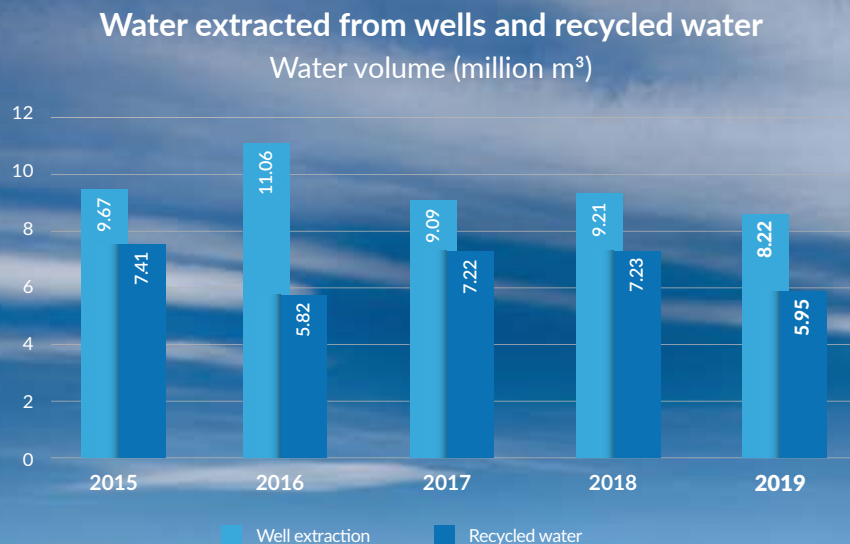
To minimize the impact on the underground source of water supply, we have implemented improvements in the installations of the tailings thickener tank of the concentration plant, in the tailings deposit and in the mine pit water utilization system, and regarding water in contact with the mine waste dumps. Thanks to these tasks, it has been possible to reduce groundwater consumption by recirculating process water in the operation of the plant.



The industrial water used in our mineral processing plant was characterized in the baseline study as saline and no apt for human and animal consumption or irrigation.

Industrial water consumption (2015-2019) ⁽³⁰³⁻³⁾

In 2019 the volume of water recovery from the tailings deposit (i.e. recirculated) and also the rate of pumping water from the well field decreased; this was thanks to the use of water from other sources (mine, natural springs in Toldos and rainwater) and the lower production of mineral concentrates (11.6% less than 2018).



This year, we were able to recover on average 16,297 m³/day of the water coming from the tailings deposit recirculation system, **which reduced the rate of groundwater extraction.**

The wastewater from the camp and the dining room is treated through a biological process until the quality is adequate for reuse in the irrigation of revegetation plots and roads.

The average rate of water consumption per tonne treated was 0.46 m³/t. In this reporting year, we were able to recover on average 16,297 m³/day of the water coming from the tailings deposit recirculation system, which reduced the rate of groundwater extraction. This aspect contributes significantly to the sustainability of the aquifer and also enables a reduction of operational costs. (303-3) In total, 8.22 million m³ of water were extracted and 5.95 million m³ were recovered, accounting for 72.38% of the water used throughout the process (303-1).

The water used for human consumption in the camp comes from a well drilled in the northern field of the Jaukihua aquifer, which, like the production wells, provides saline water. In order to distribute this water for consumption, it is subject to treatment in a reverse osmosis plant.

The data on complementary sources of water (natural springs in Toldos, water collected in the mine and water harvested in the rainy season) were not included in this report, because their contributions are not measured with automatic instruments and there is no absolute certainty regarding the flows.

The wastewater from the camp and the dining room is treated through a biological process until the quality is adequate for reuse in the irrigation of revegetation plots and roads in the operating area, as an environmental control measure to avoid liquid discharges outside the operating area and dust emissions into the air.



**5.95 million
m³ of water**
were recovered



72.38%
of the water
recovered in the
productive process





CASE STUDY

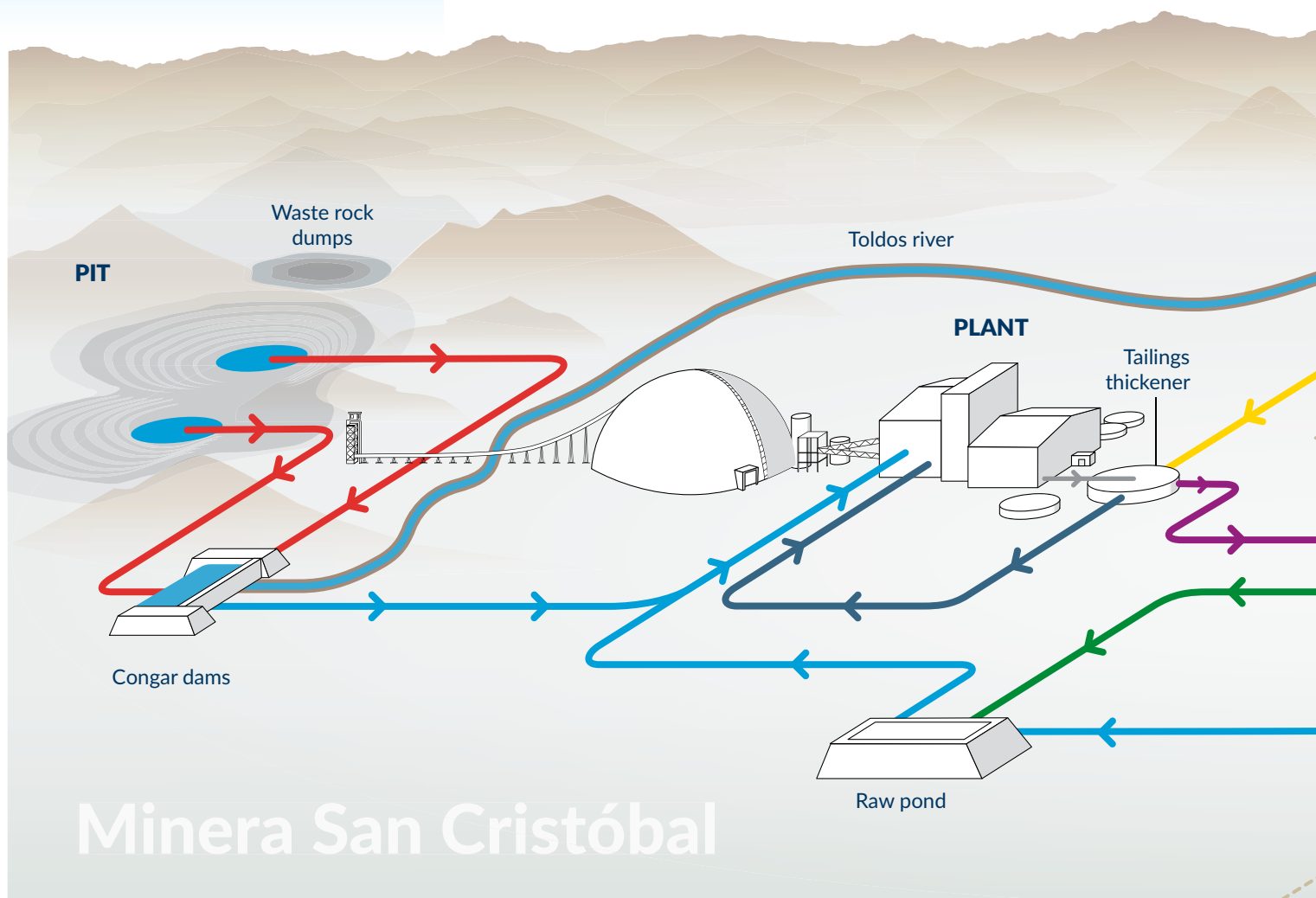
The water management plan is essential to optimize sustainable use and prevent impacts on the environment.

Water management plan - Contact water control in MSC operations

Water is a strategic resource in mining operations in general, primarily in the mineral processing and treatment phase.

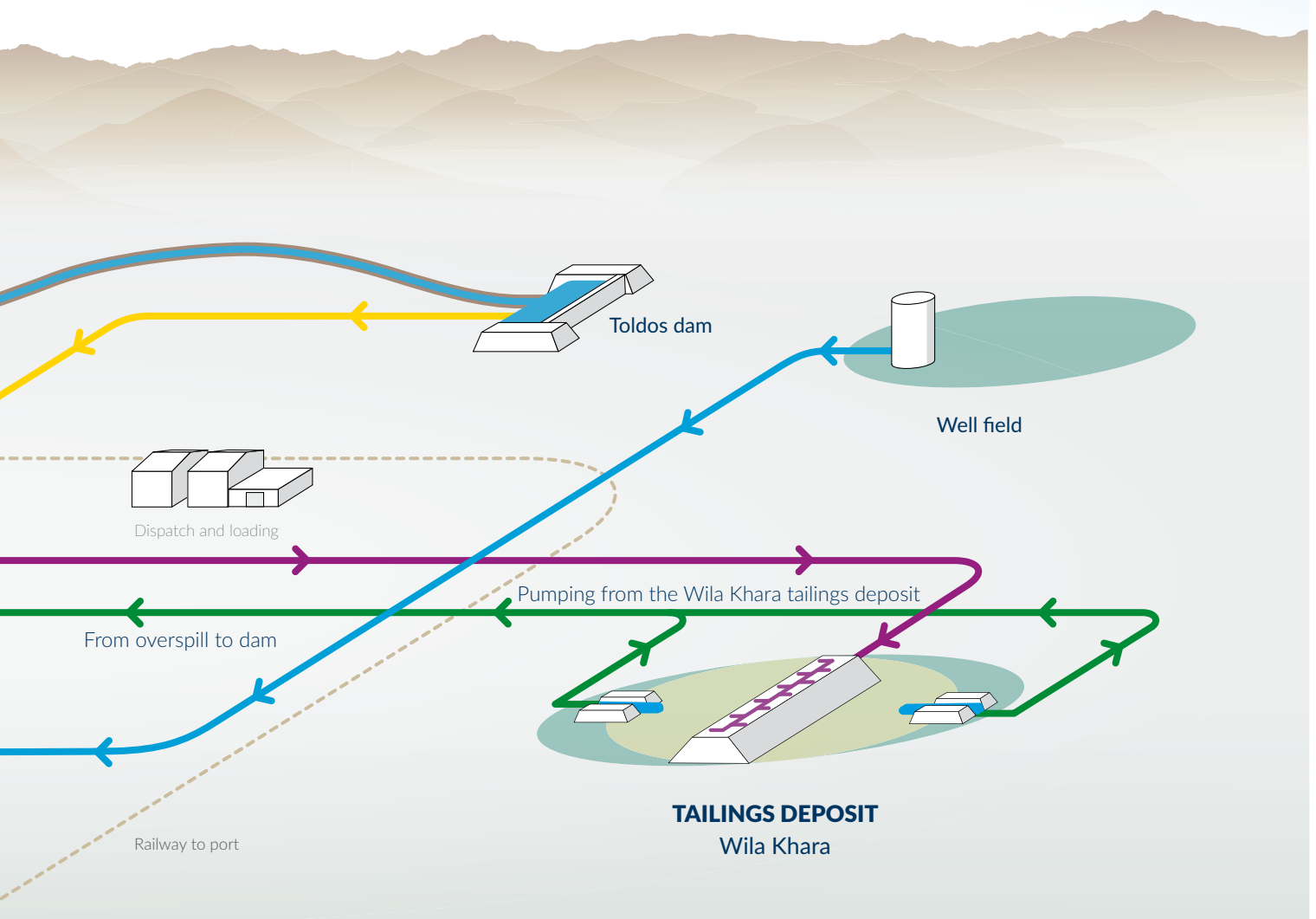
In the case of Minera San Cristóbal, the main use of water takes place in the selective flotation of low-grade zinc, lead and silver sulphide minerals.

Our sources of supply are: the well field, water recovered from the tailings deposit and, to a lesser extent, mine water in the rainy season. Therefore, the water management plan is essential to optimize sustainable use and prevent impacts on the environment.





For three months a year, contact water is produced in our area of mine operations. This happens due to the contact of rainwater and surface runoff with the mineralized material existing in the pit, in “waste dumps” and in low-grade stocks. This can lead to acid drainage and possible downstream impacts if failing to take the necessary prevention and control measures.





Congar dams



Waterproof canal at the mine

Compliance with quality standards of our **Environmental Management System**

In 2019, a plan was prepared and implemented to improve the mine drainage system with the following objectives: perform an effective control of contact waters in the rainy season; prevent rainwater degradation due to acid drainage; and ensure compliance with quality standards of our Environmental Management System, as well as the permissible limits of Bolivian environmental regulations.

The improvement works include collection, conveyance, containment, diversion and storage works, under a closed circuit model with the operation of the concentration plant. This prevents discharges outside the operations area, and allows the use and recirculation of process water and contact water.

Mine Acid Rock Drainage (ARD) containment tank



Effective control of contact waters in the rainy season

6.2 Waste management

Plant tailings (MM3)

Residues from the mineral flotation process of the concentration plant, called “tailings”, are transported by a pipeline to the tailings deposit. This is a final disposal space located in the Wila Khara micro-basin, 13 km southwest from the concentration plant and 4 km northwest from the community of Culpina K.

This basin is endorheic (closed) and the underlying geological formations have very low permeability, preventing infiltration and the risk of groundwater contamination. Thanks to this topography, the deposit only has perimeter berms and does not require a structural containment dam as in other mining operations. This reduces risks to the environment. In 2019, 16.06 million tonnes of tailings were discharged. Comparative data for recent years are presented in the following table:

Tailings sent to the deposit per year, in million tonnes	2015	2016	2017	2018	2019
	17.9	17.9	18.4	17.5	16.06



The Wila Khara basin has a very low permeability, preventing infiltration and the risk of groundwater contamination.





CASE STUDY

Archaeology works at MSC



We perform archaeological monitoring along with road opening works and the establishment of platforms for drilling exploration wells.

Every year we verify the presence of sites of interest to our operations. These studies are carried out in strict compliance with environmental laws and regulations that provide for the need to assess the direct and indirect effects of a project on the historical and archaeological heritage. In this way, we proceed to verify these sites through archaeological services authorized by competent authorities of the State, in order to evaluate, monitor and preserve the archaeological heritage in operational or exploration tasks.

In 2019, and as a result of the construction of new access roads to the northeast of the tailings deposits, stratigraphic excavations were carried out; with the recovery of archaeological material (lithic, ceramics, bones and slag); delimitation; and marking of the site for its preservation. In this way, we obtained samples of historical and cultural value.

In the San Francisco sector, where the Isidorito mining contract is located, south of our area of operations, we perform archaeological monitoring along with road opening works and the establishment of platforms for drilling exploration wells. The sweep of about eighty hectares allowed us to identify 16 archaeological sites, which were mapped, dated and delimited.

In the sixty drilling platforms and access roads, we systematically collected archaeological material for protection and to reduce the impact on cultural heritage.

In subsequent stages, a full coverage survey of the entire impact area should be done, as well as an archaeological intervention (excavations) at the most sensitive sites.

From the beginning of our activities, various archaeological explorations were carried out, and numerous sites were identified and reported to the competent authorities of the Ministry of Culture and Tourism. Some of these recovered archaeological assets were transferred to the Museum of San Cristóbal and some others are preserved in situ, complying with legal provisions on the management of archaeological and cultural heritage. The Municipal Government of Colcha K, which has specific powers conferred by the sectoral regulation, is aware of these decisions and has confirmed its agreement in this sense.



Excavation unit in the tailings deposit.



Ceramic base with basketwork imprint, found in San Francisco.

16
archaeological
sites, which
were mapped,
dated and
delimited

Collected
archaeological
material for
protection

Archaeological
assets were
transferred to
the Museum of
San Cristóbal

In 2019 we carried out maintenance and improvement work on the dykes built along the course of the Toldos river which receives drainage and runoff (rain) water. This water is pumped to the concentration plant to prevent soil contamination downstream from the mine.

Waste rock dumps

During 2019, 44.54 million tonnes of waste material were generated, which were disposed in dumps or piles. To prevent the possible generation of acid rock drainage, we have a drainage system that captures, stores and evacuates infiltration and rain waters, avoiding contact with the piles of waste material and temporary stocks of low-grade ore.

In 2019 we carried out maintenance and improvement work on the dykes built along the course of the Toldos river, downstream of the mine, which receives drainage and runoff (rain) water. This water is pumped to the concentration plant to prevent soil contamination downstream from the mine (306-1).

Septic sludge

As a by-product of treatment of the wastewater from camps, offices and dining rooms, approximately about 153 m³/year of septic sludge were generated, which were disposed of in pits of the Industrial Sanitary Landfill (ISL).

	2015	2016	2017	2018	2019
Septic sludge in m ³ /year	128	106	190	93	153


44.54
million tonnes of waste material were generated, and disposed in dumps or piles.





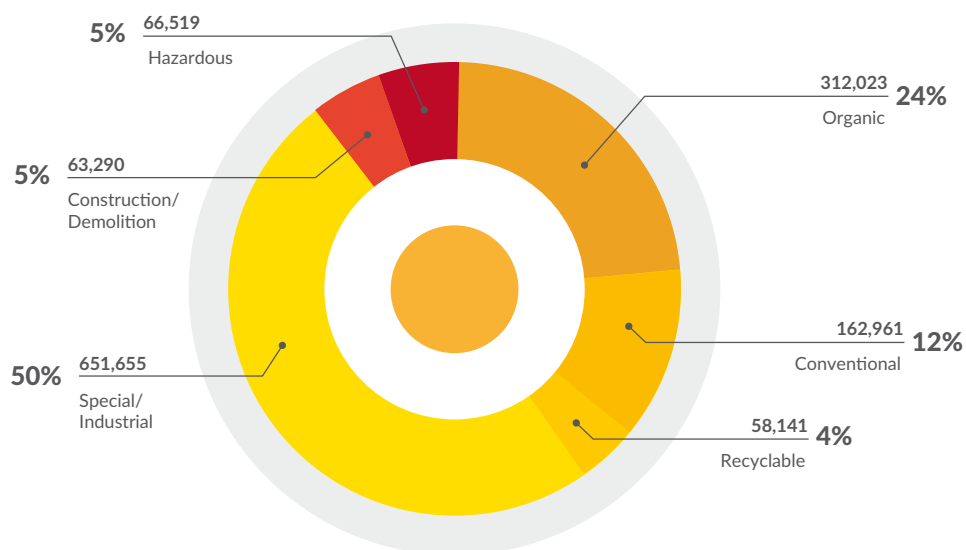
Solid waste (306-2)

Solid waste management comprises the steps of classification at source (separation by type of waste), collection and transport, temporary storage and final disposal. Depending on the type of waste, final disposal can be:

- Recyclable waste (PET bottles, cardboard, tires, junk, etc.). Transfer to independent recycling companies that have an environmental license for management and treatment.
- Reusable waste (wood, plastics, waste oil). Transfer to companies or people that have a specific environmental license for management and treatment.
- Conventional and organic waste. Storage in pits within the sanitary landfill and subsequent burial.
- Hazardous hospital waste. On-site incineration in an oven for this purpose.

Period	Organic	Conventional	Recyclable	Special/ Industrial	Construction/ Demolition	Hazardous	Total (kg)
Jan - Dec 19	312,023	162,961	58,141	651,655	63,290	66,519	1,314,589
%	24	12	4	50	5	5	100

Percentage by type of waste



Waste by category						
Hazardous waste	2015	2016	2017	2018	2019	Final destination
Waste contaminated with lubricants. Waste contaminated with chemicals. Waste from medical services/hospitals. Containers containing hazardous waste (kg).	98,589	8,522	10,374	63,962	74,651	Temporary storage and onsite incineration
Used oil (l)	573,000	435,000	437,000	546,586	538,416	Transferred to authorized recyclers
Non-hazardous waste	2015	2016	2017	2018	2019	Final destination
Conventional waste (kg)	260,136	270,700	245,105	198,967	162,961	Encapsulated in cells
Organic waste from the kitchen and camp (kg)	522,342	493,130	421,269	421,973	312,023	Encapsulated in cells
Recyclable: paper, cardboard, wood, glass, PET bottles, cans, waste (kg)	82,696	85,800	92,701	65,663	58,141	Transferred to authorized recyclers
Industrial: used steel coatings, metal parts, spare parts, rubber (kg)	56,468	313,930	350,984	605,244	651,655	Transferred to authorized recyclers
Construction waste (kg)	333,357	71,600	86,594	88,085	63,290	Encapsulated in cells

In 2019, an inspection plan concerning the operational areas has been implemented to control the correct separation and treatment of waste. In addition, in 2020 the solid waste course will be implemented on a mandatory basis.



6.3 Energy (302-1)

100% of the electricity used in our facilities is acquired from the national interconnected system. Of the total energy consumption, electricity accounts for 47.6%; diesel for 51.6%; and gasoline for the remaining 0.8%.

	Fuel consumption					Energy Equivalent (TJ)				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Gasoline (l)	780,007	718,339	733,234	735,819	664,259	27	24	25	25	22
Diesel (l)	41,992,177	31,551,444	31,868,562	38,910,665	37,052,950	1,722	1,146	1,157	1,413	1,351
Electricity purchased (MWh)	359,508	367,280	367,041	351,470	345,661	1,294	1,322	1,321	1,265	1,244
TOTAL	-	-	-	-	-	3,043	2,492	2,503	2,703	2,617

* The reported value of electricity does not include the consumption of the administrative offices in the cities of La Paz and Potosí.

In 2019, the average electrical intensity was 0.0023 TJ/t of processed concentrate. The total energy intensity in 2019 was 0.0048 TJ/t, i.e. slightly higher than the year before (0.0047 TJ/t) (302-3, 302-4).

*For conversion to Tera Joules (TJ), the factors of the Sustainability Reporting Guidelines & Mining and Metals Sector Supplement were adopted. RG Version 3.0/MMSS Final Version”.

	2015	2016	2017	2018	2019
Electrical intensity per tonne of processed concentrate (MWh/t)	-	0.61	0.58	0.61	0.64

	2015	2016	2017	2018	2019
Energy intensity per tonne of processed concentrate (MWh/t)	0.72	1.16	1.10	1.31	1.35

TOTAL ENERGY CONSUMPTION:



51.6%
of diesel
consumption

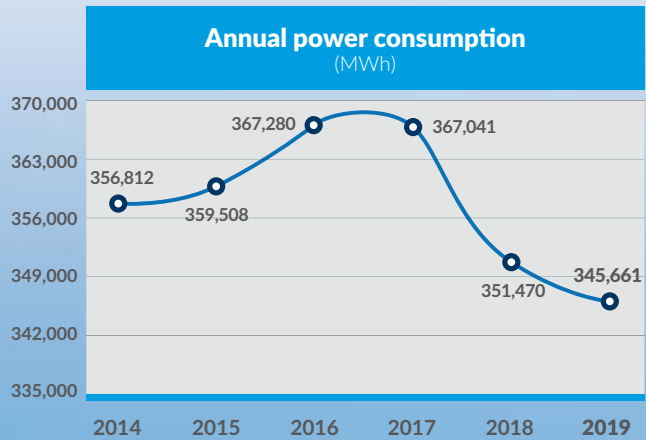
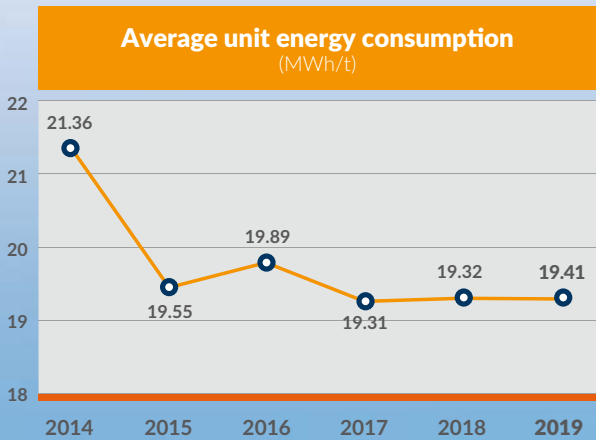


47.6%
of power
consumption



0.8%
of gasoline
consumption

The graphs show that the energy consumption in relation to 2018 decreased by 5,809 MWh (1.6%), but the rate of consumption per tonne of concentrate produced increased slightly, because the tonnage of mineral treated in the plant decreased by 558,334 t; that is, 3.08% less than the previous year (302-4).



The power
consumption in
relation to 2018
**decreased by
5,809 MWh**
(1.6%)



6.4 Emissions

Greenhouse gases

In order to calculate the greenhouse gas emissions, the document entitled “Greenhouse gas – Quantification and reporting of greenhouse emissions for organizations – Guidance for the application of ISO 14064-1” – UNE-ISO / TR 14069:2015 IN - was used. For the conversion of energy and fuels to tonnes of CO₂ equivalent, we used the factors from the table “Emission Factors for Greenhouse Gas Inventories”, which was published by the United States Environmental Protection Agency (EPA). (https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf)

In 2019, total greenhouse gas (GHG) calculated emissions are 224,227 tCO₂eq, which is 3.2% lower than reported in 2018, which was 231,598 tCO₂eq. This can be attributed to the reduction in fuel and electric power consumption (305-5). The total value is composed of 107,897 tCO₂eq (305-1) (direct emissions) and 116,330 tCO₂eq (indirect emissions) (305-2).

The total GHG emission intensity rate is 0.415 tCO₂eq per tonne of concentrate, which is the result of dividing the total emissions, including energy consumption, by the total tonnes of mineral concentrates produced in a year. The total value of the intensity of emissions is composed of the intensity of direct emissions with a value of 0.200 tCO₂eq per tonne of concentrate and an intensity of indirect emissions with a value of 0.215 tCO₂eq per tonne of concentrate. The emission factors are being reviewed and adapted to national and/or regional standards. Meanwhile, the same factors of 2018 apply (305-4).

In the plan of action proposed by the Environmental Department to align with ICMM principles, we have included tasks related to this issue, such as evaluating the use of alternative energy sources, reducing the use of fossil fuels, and regularly monitoring sources of greenhouse gas emissions.

Dust and noise

We continuously monitor the air quality in the project's area of influence at eight PM-10 stations located around the mine, in the tailings deposit and in the camp; and two stations with cascade impactors in the communities of San Cristóbal and Culpina K. According to the standards of the Environmental Protection Agency (EPA), measurements are made 24 hours a day, every 12 days.

To prevent dust and particulate material dispersion in the air, MSC has implemented the following controls:

- Speed restriction in the operational area.
- Frequent irrigation of roads.
- Application of bischofite on the running surface of the roads.
- Construction of a 140 m diameter dome over the stockpile.

With respect to noise generation, monthly monitoring is carried out at specific points within the operations area and in communities. In general, the measured values are below the permissible limits.

In 2019, total greenhouse gases (GHG) were 224,227 tCO₂eq, which is
3.2% lower than reported in 2018

6.5 Climate change and biodiversity (304-2, 304-3)

In 2019, we hired an external consulting firm, whose work was aimed at obtaining the following outputs (results):

- Diagnosis of the progress and gaps in MSC to align with the ICMM principles and position statements on environmental issues (climate change and biodiversity).
- Proposal to insert issues related to climate change, water management and biodiversity management into our management system and strategic objectives.
- Action plan to insert the ICMM environmental principles into the processes and actions administered by the environmental department.

Among the actions proposed in the plan that has been submitted at the executive level, and the approval of which is pending for implementation, are:

- Contact and hold meetings with biodiversity conservation and research institutions.
- Define thesis topics concerning fauna, flora and ecosystem services with the Universidad Autónoma Tomás Frías.
- Make an inventory of the current fauna and compare it with the study of Martínez (2009).
- Develop an action plan, based on research and monitoring data.
- Conduct regular courses on biodiversity conservation.

On the other hand, we have contacted stakeholders in society related to biodiversity conservation projects (SERNAP, universities and local conservation programs) to learn about the initiatives that are being developed in this field, within our area of influence. To date, we have not yet formalized any links with these actors, but projects in which the company could participate are being evaluated, as well as its level of involvement.

According to the International Union for Conservation of Nature, the main endangered species in our area of operation are: the small parina, the Andean suri or ostrich, the chirquincho and the Andean fox; the endangered flora includes thola, yareta and sicha (304-4).



Although the area of influence of our operation is far from any protected area or national reserve, from 2020, our Environmental Department will promote research projects with UATF graduates on issues related to biodiversity conservation (304-1).

In connection with training, we have developed dissemination material for the courses on Biodiversity Conservation and Climate Change Effects, which, starting in 2020, have been included in the matrix of mandatory courses for all our staff, as well as for contractors.

Soil remediation and rehabilitation (304-3)

Every year, we execute tasks for the remediation and rehabilitation of areas disrupted by mining activities, with the purpose of reestablishing traditional use of the soil and preserving the local ecosystems as much as possible. Since 2007 we have developed the revegetation plan of 133 hectares (ha) of soils that were affected during the construction phase and during operations. We carry out this action with the participation of a local community-based company.

In 2019 we continued our rehabilitation work in disturbed areas within and outside our operational areas. However, we will only be able to make partial surrender to the communities in the direct influence area by mid-2020. This is due to the time it takes for consolidation of the plant cover, with a size and density greater than 80%.

Quantity of rehabilitated affected land

	2015	2016	2017	2018	2019
Disrupted areas not yet rehabilitated (total affected area) (ha)	2,350	2,507	2,507	2,507	2,507
Total area rehabilitated by year (ha)	9.46	0	26.64	16.15	10.7
Total accumulated rehabilitated area (ha)	9.46	9.46	36.10	52.25	62.95

Since 2007 we have developed the revegetation plan of 133 ha of soils that were affected during the construction phase and during our operations. We carry out this action with the participation of a local community-based company.



Closure planning and rehabilitation — pilot revegetation tests in MSC



This experience is useful to optimize yields and costs, generate knowledge and strengthen community capacities.

The closure planning and environmental rehabilitation are priority areas within our strategic objectives. For this reason, we have implemented a revegetation program from the beginning of our operations in areas disturbed by the construction phase. This has enabled the staff of community based company APRACCUK to gain experience in the development of native species, as well as in organizing and training in planting techniques. This experience is useful to optimize yields and costs; generate knowledge; strengthen community capacities; and undertake future revegetation programs, both for MSC and for other forest services at the regional level.

On the other hand, we have started pilot revegetation tests on slopes made up of sulfurous material from mine residues, for different profiles of soil layers, using various methods of manual and mechanized sowing.

To date, the degree of development achieved is satisfactory, because it allows us to evaluate the differences in yields: in soil with and without sowing; with manual and mechanized techniques; and with or without the use of top soil. This way, alternatives for closure planning and rehabilitation are generated, with the participation and conformity of the community.

Also, in an experimental area of the tailings deposit, revegetation tests are carried out on multiple plots – on top of the tailings – using different native plant species and different soil cover profiles to study their adequacy and development; and four other pilot cells are prepared to study hydraulic and geochemical parameters.

Pilot
revegetation
tests on
slopes

Manual and
mechanized
sowing
methods

Revegetation
tests are carried
out on multiple
plots, on top
of the tailings
deposits

Start of pilot revegetation in mine in 2017.



Progress of pilot revegetation in mine in 2019.



Pilot revegetation plot.



Hydraulic test cells.

6.6 Environmental complaints (103-2)

In 2019, we received no complaints or concerns from stakeholders, but we continued with development of the action plan to address the concern raised by the community of Culpina K related to tailings management in the Wila Khara operational area.

Within the framework of this plan, we continue with regular monitoring at the water accumulation sites around the deposit and on soils of agricultural plots adjacent to this operational area.

Significant spills (306-3)

In 2019 the revised version of the Environmental Incidents Management instruction came into force, which, in addition to possible spills of hazardous substances, considers environmental incidents related to water, air, flora, fauna and archeology.

During 2019, no significant spills occurred in our operations which, according to the instruction, refer to spills of hazardous substances in quantities equal to or greater than 2,000 l.



environmental spills
reportable to external
authorities

6.7 Mine closure planning (MM10)


During 2019, maintaining the permanent improvement approach, we continued with the planning of the comprehensive closure of operations, taking into account the progress made in the implementation of complementary technical studies, the recommendations of previous reports and ICMM requirements.

In addition, according to the guidelines of our management policy, and applying the national regulatory framework and international standards regarding good closing practices, we developed a joint work program with international consulting firm Knight Piésold. This program aims to make an assessment of the progress made, identify information gaps, formulate an action plan to address these gaps and reduce the risks inherent in the effectiveness and sustainability of remediation and rehabilitation measures in the long term. We give priority to relevant sites such as the integrated pit, mine waste dumps and the flotation tailings deposit, which are linked to key aspects such as water management, land transfer or restitution to communities, the recovery and protection of biodiversity resources in the area of influence, and the integration of the social and environmental closure to ensure acceptance by the communities concerned. The joint work plan has the following scope:

We give priority to relevant sites such as the integrated pit, mine waste dumps and the flotation tailings deposit.

Our closure plan is aligned with national laws, our management policy and international standards.

Phase 1	Phase 2	Phase 3
Assessment of environmental performance and diagnostic of the current state of the MSC closure plan.	Analysis of information gaps for planning the closure. This analysis will provide a greater level of certainty regarding the effectiveness of the prevention measures and the control of risks associated with the sustainable management of both surface and groundwater, especially contact waters in relation to the natural environment and the communities.	Preparation of the proposal for an action plan, based on the gap analysis, oriented to the 2020 operational plan and the 2020-2024 five-year plan.



The results of the gap analysis highlight the following tasks we should consider carrying out:

- Complement with hydrology, hydrogeology and geochemistry studies to generate information that ensures safe and sustainable water management in the post-closure and abandonment stages.
- Develop assessments and studies to standardize data on climate, water balance and treatment options according to ICMM guidelines.
- Evaluate legal commitments relating to environmental liabilities of past mining activities (prior to MSC) and define treatment measures and alternatives for final disposal, as part of the concurrent closure.
- Prepare an update report on the closure and rehabilitation of MSC, based on available information. It is important to note that closure planning is a dynamic process, which is developed based on the progress and changes in the operational plan of the mine and other external factors.



Proposed work plan for the five-year period 2020-2024:

Following our business management system guidelines and taking into account the strategic objectives defined for years 2020-2024, we have prepared a tactical and operational plan with the aim of moving forward in terms of improvements and progressive consolidation of the comprehensive closure plan. This plan is developed in accordance with the principles of respect and protection of the environment, legal compliance, and social and environmental responsibility.

The programmed activities are also aimed at strengthening the knowledge and skills of the work team; contributing to the continuous improvement of the processes related to closure and rehabilitation; ensuring the integration of the closure plan into our operational plan; complementing the technical studies required in the planning of the closure and rehabilitation; and developing designs and estimating the costs of environmental and social closure works, to ensure effectiveness and sustainability of the remediation and mitigation measures in the long term.

Other recurrent tasks to support the planning of the closure and rehabilitation plan include:

- Update of the annual inventory of top soil recovered from the mine area and the tailings deposit, and the maintenance plan for future use in the concurrent closure and final closure.
- Environmental monitoring plan for water and soil quality in the area of influence of our operations.
- Follow-up of the development of the revegetation plan covering the soils affected by the construction phase.
- Review and standardization of meteorological and hydrological data concerning the area to update the water balance in the micro-basins with links to the area of operation.
- Training program for staff involved in the comprehensive closure and in the remediation and rehabilitation projects on the alignment with ICMM principles.



On the other hand, the social closure planning includes the following activities:

- A resilience study with the communities in the area of influence.
- An assessment of compliance with agreements and commitments with communities, and of the mitigation and social resettlement program.
- Support for the strengthening of alternative productive development programs in communities in the area of influence.
- Strengthening relations with local communities.
- Drawing up a communication plan aligned with the policy and values of the management system, in order to ensure effective stakeholder participation.



The Municipality of Colcha K managed 70% of the equipment required for the second-level hospital.



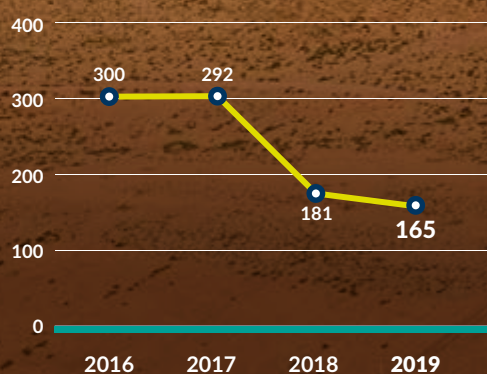
We have carried out actions for the generation of 85 tourism ventures and 146 jobs.



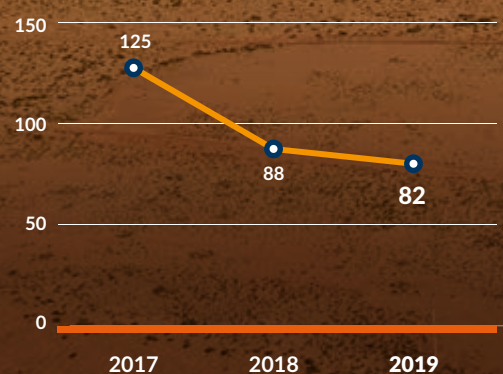
It was possible to produce 7,675 kg of artisanal preroasted quinoa. This generated an income of US\$ 46,315 for the group of women entrepreneurs in quinoa in Culpina K.

ODS MSC

Average of water consumption
(l/day/person in San Cristobal and Culpina K)



Average of waste reduction
(m³/month in San Cristóbal and Culpina K)



We help generate sustainable development in the area of direct influence of our mining operation, which comprises four communities: San Cristóbal, Culpina K, Vila Vila and Río Grande.

7 Neighboring communities

Approach

We are part of the environment where we operate, and mutual respect is fundamental to coexistence with the communities. Thus, we maintain a close and open relationship with our stakeholders, sharing information about our business activities and taking into account their views and expectations. We also address and mitigate the environmental and social impacts generated by our operations and we contribute to the socio-economic development of the communities in the area of influence, in coordination with the Consultative Council Los López San Cristóbal (103-2).

The area of direct influence from our mining operation comprises four communities: San Cristóbal, Culpina K, Vila Vila and Río Grande.

Our Social Management Plan aims to methodically and systematically manage the relationships, expectations and interests of different stakeholders; and methodically and systematically manage related impacts and contributions to local economic development of the communities in our environment. The Social Management Plan, which we draw up and update every five years, includes and integrates the following programs:

- Community Relations, aimed at maintaining the continuous relationship based on mutual respect with the communities in the area of influence.
- Resettlement and Mitigation, which aim to minimize the socio-economic impacts caused by our operations.
- Sustainable Development, which aims to support and provide technical assistance to promote socio-economic development in local communities and in the region, in close collaboration with the Consultative Council Los López San Cristóbal.
- Social Capital, to know the relationship, behavior and degree of acceptance of the different stakeholders identified.

San Cristóbal



Culpina K



7.1 Area of influence

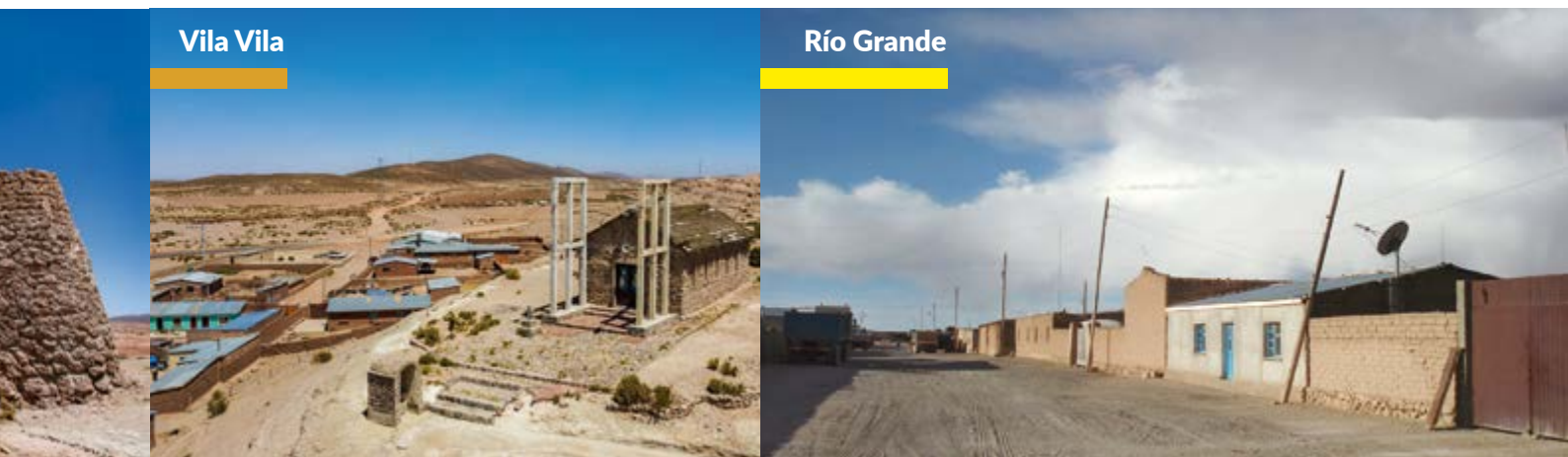
Our area of operation is mainly inhabited by indigenous communities that are part of the native communities of Nor Lipez, which, in turn, are part of the Central Única Provincial de Comunidades Originarias de Nor Lipez and indigenous territory Territorio Indígena Originario Campesino (TIOC). The area of direct influence of our mining operation comprises four communities: San Cristóbal, Culpina K, Vila Vila and Río Grande. The area of indirect influence comprises eight communities along the main road between Uyuni and Avaroa, and the railway we use to transport materials, inputs and concentrates. We also interact with other communities located near the project (MM5).

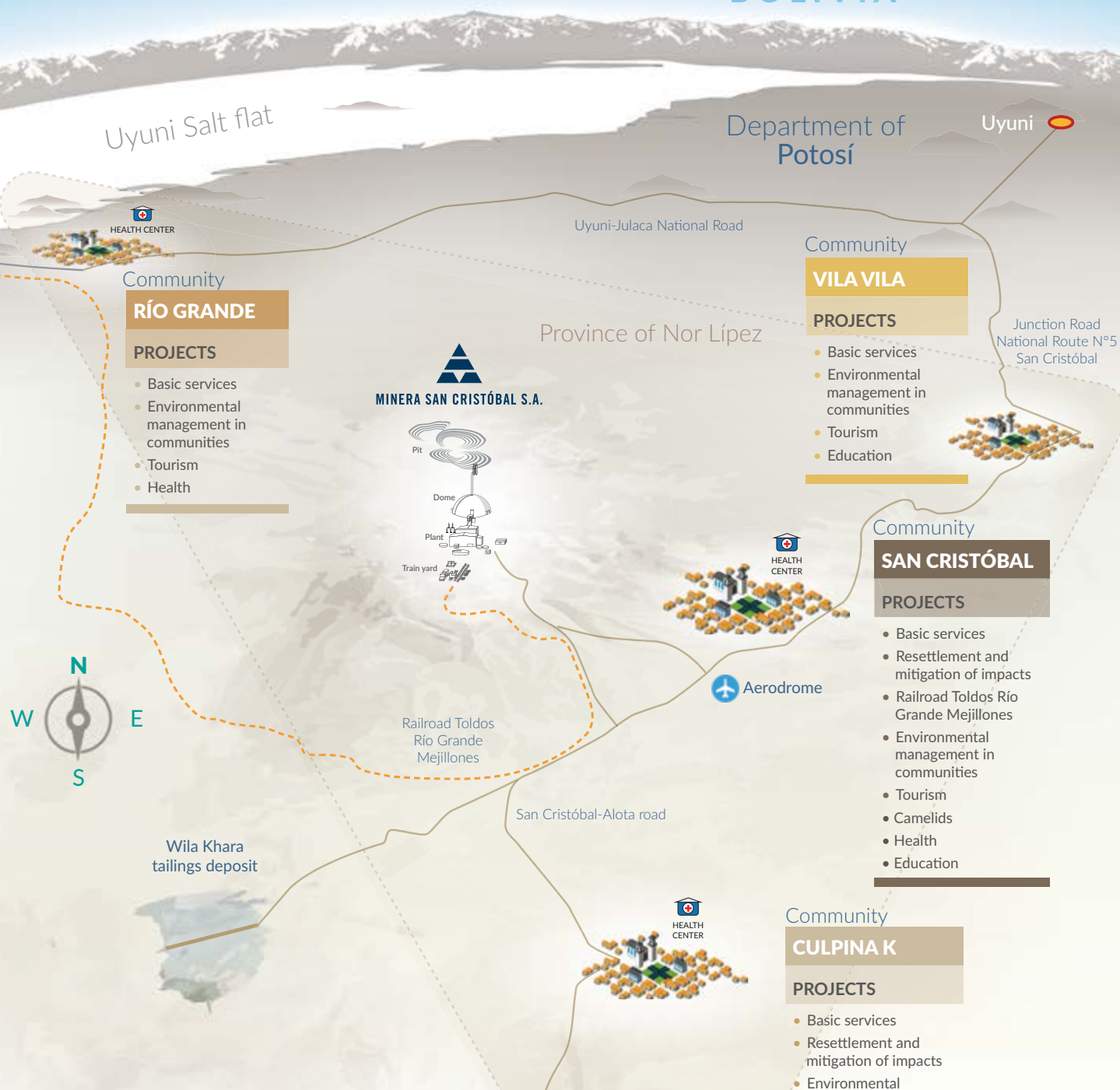
We comply with Bolivian legislation regarding the rights of Indigenous Peoples, as well as international treaties, guidelines and principles related to mining activities. In 2019 there were no cases of violation of the rights of indigenous people (411-1).

The initial agreements signed by the company were with San Cristóbal in 1998, Culpina K in 1999, Vila Vila in 1999 and Río Grande in 2006. These agreements remain in force in an atmosphere of mutual respect, consensus and direct dialogue. Later, we signed other important agreements such as the Wila Khara sustainable development agreement with the community of Culpina K in 2010; the memorandum of understanding and pact of harmony, health and sustainable productivity in 2011; the agreement for local development of San Cristóbal in 2013; and the agreement for expansion of the operations area between MSC and the community of San Cristóbal in 2017.

In 2019, in compliance with the interinstitutional agreements with the municipalities of Colcha K and San Agustín, we proceeded with the disbursement of the matching amounts to carry out the project for asphaltting the Río Grande-Cruce Laguna Colorada road. This project is currently underway, in phases I and II. We also moved forward with the interinstitutional agreements with the Consultative Council Los Lipez San Cristóbal and the municipality of Colcha K, which aim at the integral and sustainable development of the region.

In addition, we channeled the project to support commercialization, business ventures and institutional strengthening of the productive chains of tourism, camelids and quinoa in the area in which we operate. This is a project that was approved by the IDB.





Demographic, socio-economic, basic services and health data

Community	Population		Average household income (USD/year)		Household drinking water coverage (inside and outside the house)		Electricity coverage		Infant mortality before 1 year of age per 1,000 live births	
	2000	2016	2004	2016	2000	2016	2000	2016	2013	2018
San Cristóbal	676	1,982	1,561	7,414	0%	99.4%	0%	96.9%	0	0
Culpina K	415	653	1,042	7,992	0%	100%	0%	98.8%	0	0
Vila Vila	208	428	815	7,260	0%	100%	0%	99%	-	-

Source: Environmental Impact Assessment 2000 and Socio-Economic Baseline Study prepared by Cumbres del Sajama in 2016.

Health data: Municipal Health Services Network SAFCI Colcha K.

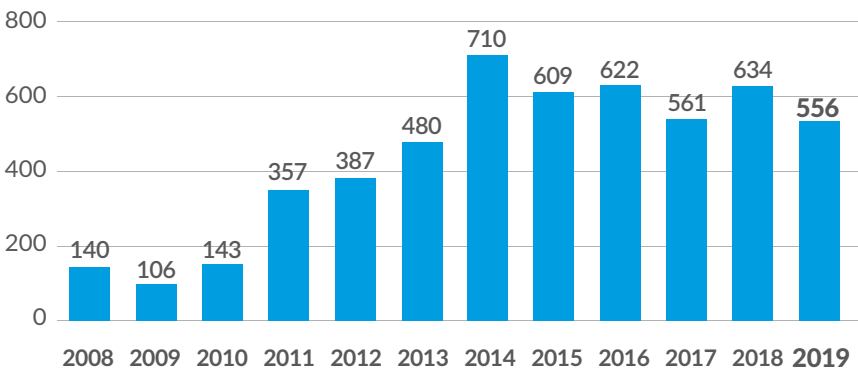
Río Grande de Lípez

7.2 Community relations management (102-43, 103-2)

Permanent and direct contact with the various stakeholders is the fundamental pillar of our relations with the communities in the area of influence. In our Community Relations offices in the communities of direct impact, we receive visits from authorities, representatives of institutions, organizations and community members to answer questions and respond to requests for support, concerns or complaints, and we hold meetings on various topics of interest. In the communities of indirect influence and with organizations in the region, the regional liaison is responsible for addressing these types of concerns and initiatives.

With a more proactive approach, our community liaisons both at the local and regional levels schedule monthly contacts with the different stakeholders, in order to collect their perceptions which are the basis for learning about their behavior, concerns or expectations ⁽⁴¹³⁻¹⁾. In 2019, 556 contacts were recorded with the different stakeholders of the communities in our area of influence.

Total contacts with stakeholders, by year



We respond to requests for support for minor projects in environmental, social and productive topics and emergency works of our stakeholders, through the strategic social investment process and under the principle of shared responsibility. In recent years, the contribution of the communities to these initiatives has been higher than our matching contribution.



556 contacts
with stakeholder of
the communities

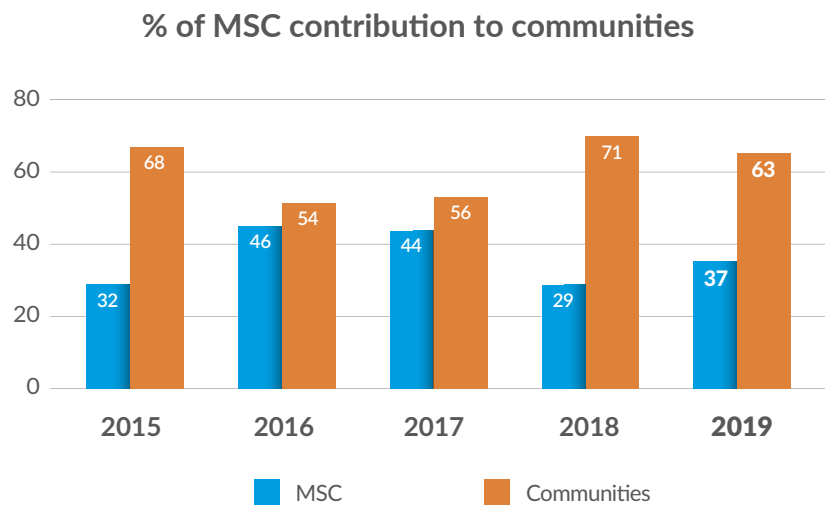
**In 2019, 556
contacts were
recorded with
the different
stakeholders of the
communities in our
area of influence.**



In 2019 the average contribution of the communities was 63%.



In 2019, the average contribution of the communities to small environmental, social and productive projects and emergency works of our stakeholders was 63%.



Social care

We address the needs of different social groups, especially those of vulnerable groups in the communities of direct influence and, in some cases, those of neighboring communities. Every year we carry out various activities within the framework of the five-year plan 2015-2019 of the social project, the main actions of which are detailed below:

Awareness on social issues in San Cristóbal, Culpina K and Vila Vila	Assistance for vulnerable groups in San Cristóbal and Culpina K	Support for business ventures in San Cristóbal, Culpina K and Vila Vila
<ul style="list-style-type: none"> • Awareness-raising regarding Law 348 (against domestic violence) among 212 students and 343 parents. • Training on the importance of family integration for 745 students and 335 parents. • Financial education (savings and household investment) for 587 students and 244 parents. 	<ul style="list-style-type: none"> • Delivery of 1,280 food packages to the elderly. • Social assistance to 14 elderly. • Social assistance to five women household heads. • In addition, in local and surrounding communities, solidarity support for medical treatment, clothing and housing improvement. 	<ul style="list-style-type: none"> • Training in entrepreneurship and business management for 99 people. • Technical assistance to 41 individual enterprises and eight productive associations. • Employability training for 55 people

At the same time, a professional specializing in social issues provides permanent support regarding social problems (alcoholism, teenage pregnancy, drug addiction, domestic violence); as well as vocational guidance to students in schools; and psychosocial assistance to families in communities in the area of direct influence.

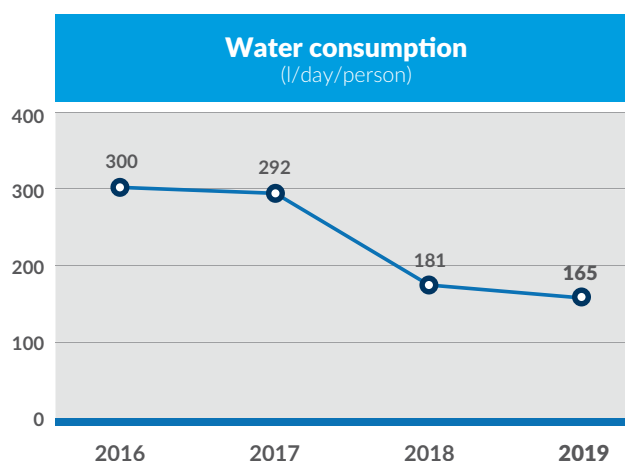
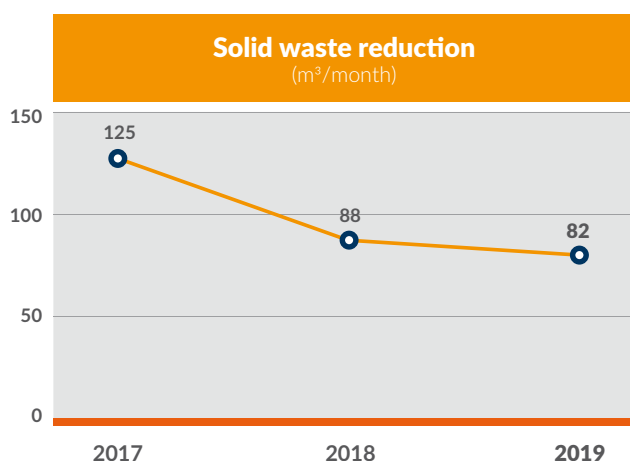
Environmental management in communities

By replicating the good environmental practices of our company, and within the framework of Law 1333, we promote environmental management in conjunction with the authorities of the four communities in the direct impact area. This management is underpinned by the five-year plan 2015-2019. The most relevant actions we carry out in the framework of this plan are mentioned below:



Environmental awareness	Environmental equipment	Institutional strengthening
<ul style="list-style-type: none"> • 54 talks on environmental issues in the schools of the communities of San Cristóbal, Culpina K, Vila Vila and Río Grande. • Dissemination of 129 environmental messages using different means of communication. • Dissemination of environmental information at eleven communal fairs in local communities and in the region. 	<ul style="list-style-type: none"> • Implementation of four wastewater reuse models in schools and health centers. • Implementation and expansion of green areas in the communities of San Cristóbal, Culpina K, Vila Vila and Río Grande. • Provision of 19 waste containers. • Improvement of the infrastructure for the operation of landfills in the communities of San Cristóbal, Culpina K, Vila Vila and Río Grande. • Promotion to implement solid waste collection services. • Support for 40 communal clean-up campaigns. 	<ul style="list-style-type: none"> • Organization of 106 youth and child volunteer environmental brigade members in four communities. • Organization of four communal environmental committees. • Organization of an interinstitutional environmental sectoral platform under the leadership of the Municipal Government of Colcha K. • Assistance for organizing the first Municipal Environmental and Climate Change Summit of Colcha K. • Support in preparation of the first Municipal Strategic Plan of Colcha K.

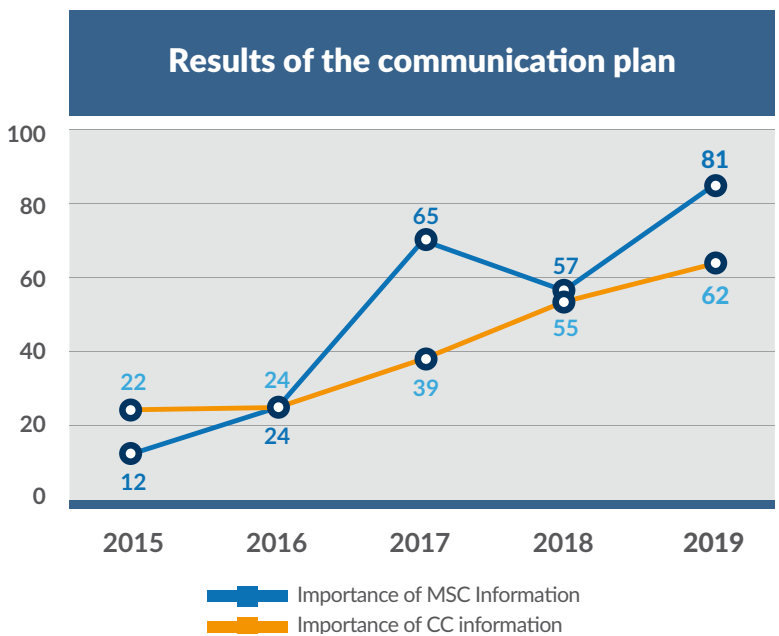
As tangible results of the actions implemented under the five-year plan, we achieved an average reduction in water consumption from 300 to 165 l/day/person, and in solid waste generation from 125 to 82 m³/month in the communities of San Cristóbal and Culpina K, as shown in the following graphs:



Communication in communities

In order to disseminate information in a transparent, systematic and scheduled way about our activities in the communities and about the progress of different sustainable development projects, we implemented the five-year communication plan 2015-2019. To achieve this in an appropriate way, we use various media, such as: radio, newsletters, presentations at meetings and participation in fairs. We also organize guided tours of authorities and institutions in the region to our mining operations and community development projects.

According to the evaluations made through random sampling, in 2019 81% of the population of the communities consider the information disseminated about our company to be important and 62% consider the information disseminated about the projects of the Consultative Council to be important. The results achieved in the communication plan in the five-year period 2015-2019 are shown in the following graph:



81% of the population of the communities consider the information disseminated about Minera San Cristóbal to be important and 62% consider the information disseminated about the projects of the Consultative Council to be important.



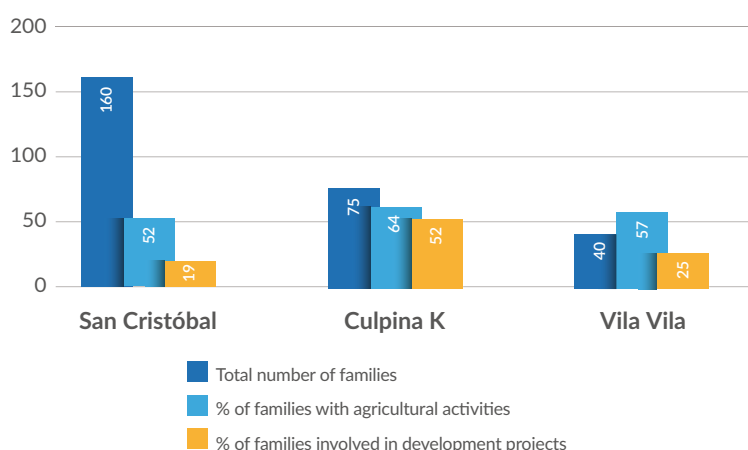
7.3 Resettlement and mitigation of impacts (MM9)

In order to mitigate the socio-economic impacts caused by the use of productive land in the communities of San Cristóbal and Culpina K, we evaluate these impacts and conduct field visits and meetings with affected families and community authorities. In this way, we reach a consensus on mitigation actions and we implement resettlement and/or mitigation plans.

Due to the fact that the actions considered in the mitigation plans have already been implemented, in recent times we have focused on verifying the effects of the measures implemented, on the continuity of resettled/signatory families in agricultural activities or on their involvement in sustainable development projects.

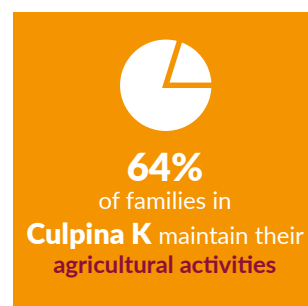
In order to carry out these verifications, a livestock promoter carries out daily technical monitoring of the livestock behavior and the use and operation of the works executed for impact mitigation. This official also addresses the concerns of the affected livestock breeding families. According to the results of monitoring the signatory families from the directly impacted communities in 2019, in San Cristóbal 52% of these families maintain their agricultural activities; in Culpina K, 64% do so; and in Vila Vila, 57%. On the other hand, 19% of the families in San Cristóbal are involved in development projects; in Culpina K, 52%; and in Vila Vila, 25%. The rest works in the company or has chosen to engage in other types of ventures.

Occupational situation of resettled families



On the other hand, in 2019 we have continued with the construction and improvement of rainwater harvesting reservoirs in the areas surrounding the mining operation. We have also continued with the previously built works for using natural water sources, to provide water to livestock troughs.

Regarding development projects, 19% of the families in San Cristóbal are involved; 52% in Culpina K; and 25% in Vila Vila. The rest works in the company or has chosen to engage in other ventures.





CASE STUDY

Harvesting water for camelids



**The reservoirs
are a viable
alternative
to meet the
livestock water
needs.**

Minera San Cristóbal's operations are located in the Bolivian highlands. This land, at an altitude of approximately 3,900 MASL, is arid with low rainfall. Generally, rain falls only in the first months of the year, so there are not many streams of natural water for consumption by the camelids.

In order to carry out the mining operations, we have needed to use productive land, especially some areas used for camelids, which involved the displacement of camelids to other areas in search of water sources.

In order to mitigate the impact of these activities, we reached an agreement with the affected families and with the authorities of the community of San Cristóbal to install tanks and build rustic troughs for the supply of water with tank trucks. This

is a short-term solution, and, in the medium and long term, we are committed to finding alternatives for the sustainable water supply.

In this way, and after carrying out the necessary hydrogeological studies, we proceeded to build 4 reservoirs (dams for runoff water containment) in places adjacent to our area of operations.

These reservoirs, which contain approximately 10,700 m³ of water per year considering losses mainly due to evaporation, benefit 14 affected livestock breeding families with around 1,160 llamas and require only 40% of this capacity for consumption.

This way, the reservoirs are a viable alternative to meet the livestock water needs. In addition, the excess water can be used in other productive activities.

The operation and maintenance of the reservoirs are transferred to the community and the livestock breeding families.

14 farming families
benefited

The reservoirs,
contain **10,700 m³ of water**

1,160 llamas
require only
40% of this
capacity for
consumption

Lunku Pata reservoir.



Cruz Khasa reservoir.



Karachi Chico reservoir.



Janaj Cuchu reservoir.

Basic services

The generation of direct and indirect employment through our mining project was the determining factor for population growth, mainly in the communities of the direct impact area. Due to the population growth, the natural water sources were no longer sufficient to meet the population's growing demand for drinking water. For this reason, in coordination with the authorities of San Cristóbal and Culpina K, we built water collection systems based on pumping water from wells. At present, these pumping systems are the main sources of supply for these communities.

In 2019, we have supported the water committees of the communities of San Cristóbal and Culpina K in the upgrade and maintenance of their pump-based water collection systems. We also continue to support the process of strengthening the Drinking Water and Sanitary Infrastructure Committees (CAPIS), drawing up bylaws, regulations and consumption tariffs.

In the community of Culpina K, after the commissioning of the new drinking water distribution network with household meters, the consumption-based water tariff was approved and implemented. In the community of San Cristóbal, on the other hand, with resources from the municipal government of Colcha K, the installation of the new water distribution network with household meters was concluded, but the consumption-based water tariff has not yet been approved.



Water well of Yana Loma—Culpina K.



Water well number 6 of Jalanta—San Cristóbal.



7.4 Development projects (413-1)

We provide technical and financial support to the sustainable development projects of the Consultative Council Los Lípez San Cristóbal. The Consultative Council is a representative body for co-participation of the leaders from the communities of direct influence, who enjoy the legitimate recognition of their communities, and it carries out a strategic plan to promote local development of the communities, in close collaboration with political authorities and social and productive organizations of the neighboring communities. This council, which was created in 2006 following the recommendations of Operational Directive OD 4.20 of the World Bank, receives permanent technical assistance from a team of professionals of the Department of Sustainable Development and Community Relations of Minera San Cristóbal.

In order for the different productive and social projects to materialize, we enter into strategic alliances with cooperating entities, the Municipal Government of Colcha K, government entities and other actors that coordinate and interact to achieve the economic, social and environmental objectives set forth in the strategic plan.

Every year, the Consultative Council organizes and conducts meetings to evaluate progress of the plans. Likewise, the actions to be executed in the following year are scheduled. In the first phase of the 2010-2014 strategic plan, the Consultative Council focused on improving the productive base. The 2015-2019 strategic plan phase focuses on infrastructure and equipment for productive and social transformation.

The main actions implemented and the results achieved within the framework of the five-year plan 2015-2019 are described below.

Tourism project

Through coordinated efforts with the Consultative Council Los Lípez San Cristóbal; the Foundation for Development Cooperation and Promotion of Assistance Activities (CODESPA); Conservation International; the Municipal Government of Colcha K; the Local Tourism Association Pueblos Mágicos de Los Lípez; and the authorities of the communities of San Cristóbal, Culpina K, Vila Vila and Río Grande, the activities of the tourism project framed in the five-year plan 2015-2019 were developed.



The following relevant actions are highlighted:

Improvement of tourism products and services	Marketing support for tourism products and services	Organizational and business strengthening of the tourism sector
<ul style="list-style-type: none"> • Registration and categorization of tourist attractions. • Training in hotel management, gastronomy, tourist guiding, handicrafts and crosscutting topics such as customer service, basic English, environmental care, gender and leadership. • Improvement of the local tourist offer in the Cultural Tourist Center. • Commissioning and improvements of the equipment of the Church of San Cristóbal. • Implementation of interpretative means for tourist attractions. • Renovation of the infrastructure, equipment, training and start-up of women's venture Café UNIKO in Culpina K. • Implementation of sewing and weaving equipment and training for women's entrepreneurship at CIPAET in Vila Vila. 	<ul style="list-style-type: none"> • Implementation of the tourism brand: Pueblos Mágicos de los Lípez. • Organization of the marketing team. • Participation in local, regional, national and international fairs. • Update of the website and Facebook. • Press tour with the national press to present the tourist attractions of the region. • Experience-sharing trips and learning paths with local entrepreneurs. • Design, creation and promotion of local cultural events. • Design and printing of promotional material. 	<ul style="list-style-type: none"> • 85 entrepreneurs organized under the leadership of Tourism Association Pueblos Mágicos de los Lípez, which has legal capacity. • Operation of the new commercial arm (Cultural Tourist Center). • Application of bylaws and internal rules. • Consolidation of the tourism sectoral platform. • Preparation of a handbook on good environmental practices. • Awareness-raising workshops on environmental issues. • Provision of incentives to enterprises that apply good environmental practices.

Some of the most relevant results of the actions implemented within the framework of the five-year plan of the tourism project, according to the closing report of the 2019 CODESPA project, are:

- 85 ventures were set up;
- 146 jobs were generated;
- the Association Pueblos Mágicos de Los Lípez reached a visitor number of 508,567 people (of whom, 48,409 were foreign/national tourists and 460,158 local and regional customers);
- this yielded a total income from tourist services equivalent to US\$ 1,095,016.

85 ventures were set up, 146 new jobs were generated, and 508,567 visitors were welcomed (of whom 48,409 were foreign/national tourists and 460,158 local and regional customers).



Camelid project



Camelid project

The activities included in the five-year plan 2015-2019 of the camelid project, involving nine communities, focused on the consolidation of the primary production, the consolidation of processing activities, the promotion of marketing, and technical and administrative capacity-building of APROSAC. These activities were carried out in coordination with the Municipal Government of Colcha K, the Canadian Cooperation, Conservation International Foundation, the Consultative Council Los López San Cristóbal, the San Cristóbal Camelid Producers Association (APROSAC) and the authorities of the communities.

Below, the most relevant actions are described:

Consolidation of family productive units in integral camelid management	Consolidation of transformation of the production chain of the camelid sector	Promotion of commercialization of the production chain of the camelid sector
<ul style="list-style-type: none"> • Training and technical assistance in native grassland recovery, kauchi crops, compost preparation, fodder conservation, and barley, oats and alfalfa production in six communities. • Training and technical assistance in the management of camelids, in the selection of breeding animals, and in reproduction, animal health, feeding and slaughtering. • Five mass deworming campaigns in nine communities, in coordination with the municipality of Colcha K, covering 146,200 animals (126,740 camelids; 19,460 sheep and goats). • Matching contribution for the construction of four anti-parasitic baths, four micro-irrigation systems, 23 animal pens, three traditional reproduction centers and one rustic fodder silo. • Training and technical assistance in capture and mechanized shearing of vicuñas. • Five annual vicuña census, capture and shearing campaigns with the participation of twelve vicuña breeding communities. 	<ul style="list-style-type: none"> • Construction and equipment of the slaughterhouse and llama meat processing plant. • Obtention of the Industrial Environmental Registry (RAI, in Spanish) of both plants. • Obtention of the Health Registry of the slaughterhouse, granted by SENASAG. The Health Registry of the llama meat processing plant is pending. • Training in llama slaughtering and meat processing, in San Cristóbal, Tarija and La Quiaca-Argentina • Technical assistance in slaughtering and processing of meat derivatives in both plants. • Slaughtering and llama meat derivatives processing tests: top-quality fresh meat in different cuts, barbecue chorizo and jerky. • Training in standardization of the production of meat derivatives. • Construction and equipment of the vicuña fiber collection center. • Training on prior bristle removal with experts from Peru. 	<ul style="list-style-type: none"> • Exchange of experiences with the board of APROSAC in La Quiaca-Argentina for a technical visit to similar projects. • Fresh meat sales to Newrest. • Design and approval of labels for five meat products. Health Registry procedure underway. • Tasting of derivatives with representatives of local institutions and Newrest. • Exchange of experiences with the board of ARMAVI K in Arequipa-Peru and La Quiaca-Argentina.
		Technical and administrative capacity-building of APROSAC. <ul style="list-style-type: none"> • Consolidation of annual deworming campaigns with the Municipal Government of Colcha K. • Agreement with the Municipal Government of Colcha K for the construction of animal pens. • Procedure for ARMAVI K to obtain legal capacity. APROSAC's legal capacity procedure is underway. • Steps taken by APROSAC for additional equipment and an increase of fodder plots.

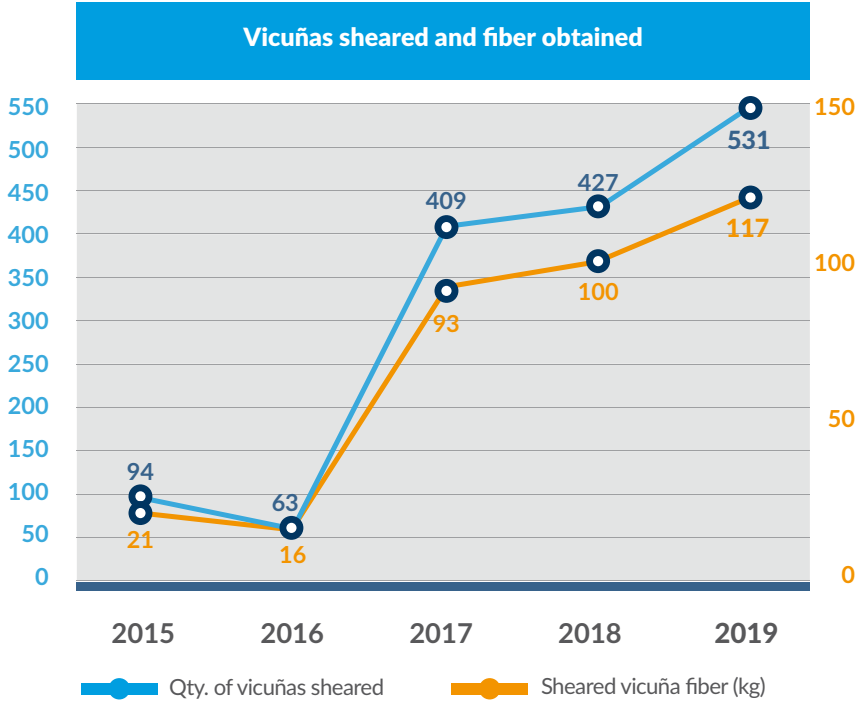
The most relevant results of the actions implemented within the framework of the five-year plan of the llama project are that 520 cattle farmers from nine communities participated; the mortality of young animals decreased to 11%, and the live weight of adult llamas increased to 81.03 kg. In 2019, 50 animals were slaughtered at the slaughterhouse; 128 kg of jerky and 289 kg of chorizo were produced at the meat processing plant; 123 kg of jerky, 289 kg of chorizo and 1,053.5 kg of fresh meat were sold to Newrest.

520
cattle farmers
from nine communities

1,466 kg
of meat products
and fresh meat sold

Among the most relevant results of the actions implemented in the framework of the 2015-2019 five-year plan of the vicuña management and use project are the legal incorporation of the Regional Association of Vicuña Producers at the Municipal Level (ARMAVI-CK) with 12 communities managing vicuña and the gradual increase in vicuña shearing. In this way, 531 vicuñas were sheared and 117 kg of fiber was obtained in 2019.

In 2019, 531 vicuñas were sheared and 117 kg of fiber was obtained.





CASE STUDY

Slaughterhouse and llama meat processing plant in San Cristóbal



In 2019, tests were carried out for operation of the slaughterhouse and llama meat processing plant, both located in the community of San Cristóbal in the province of Nor Lipez, Potosí. These projects were carried out thanks to an interinstitutional partnership of the Consultative Council Los Lipez San Cristóbal, NGO Conservation International, the Municipal Government of Colcha K, community authorities, the PRO-CAMÉLIDO program and Minera San Cristóbal, within the framework of the sustainable development plan of the Consultative Council.

The slaughterhouse, which has unique characteristics in the country, can slaughter 20 animals per day; it complies with all municipal and even departmental standards, and it has the Health Registry granted by the National Agricultural and Livestock Health Service (SENASAG).

The llama meat processing plant, built and equipped in accordance with SENASAG regulations, was designed to produce dehydrated llama meat (jerky), different types of sausages and special meat cuts.

**The
slaughterhouse
can slaughter 20
animals per day.**

In order to be competitive in the market, both the technical staff and the management of the San Cristóbal Camelid Producers Association (APROSAC) received training and technical assistance at similar companies in Bolivia and Argentina in the fields of slaughtering, processing and marketing.

Slaughtering tests were carried out (with 70 llamas) and different meat derivatives were produced. In addition, there are already two contracts with regional productive organizations and the business plan is being implemented.

APROSAC has been actively involved in the project, i.e. in the stage of conception, monitoring of the design, and in the construction and equipping of the two facilities. It is also the productive organization responsible for the operation and administration of both facilities.

The project will initially benefit breeders from nine livestock breeding communities (San Cristóbal, Culpina K, Vila Vila, Río Grande, Catavi K, Tambillo, Pampa Grande, Iscay Uno y Villa Catavi) with potential to provide 3,320 live animals/year.

These communities receive continuous technical assistance in the comprehensive management of camelid cattle, which enables them to improve their breeding and animal quality.

Technical assistance in the fields of slaughtering, processing and marketing

Producers with potential to provide 3,320 live animals/year

The project **will benefit** nine communities





The activities of the five-year plan 2015-2019 of the quinoa project, which included the participation of 16 communities in the municipalities of Colcha K and San Agustín, focused on assistance to primary production, the consolidation of transformation, the promotion of commercialization, and organizational strengthening.

These activities were carried out in coordination with the Municipal Government of Colcha K, the Canadian Cooperation, CECI, PROINPA, the Consultative Council Los López San Cristóbal, the Association of Agricultural Producers of the Community of Culpina K (APRACCUK) and the authorities of the communities.

Below, the most relevant actions are described:

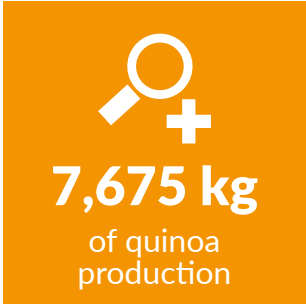
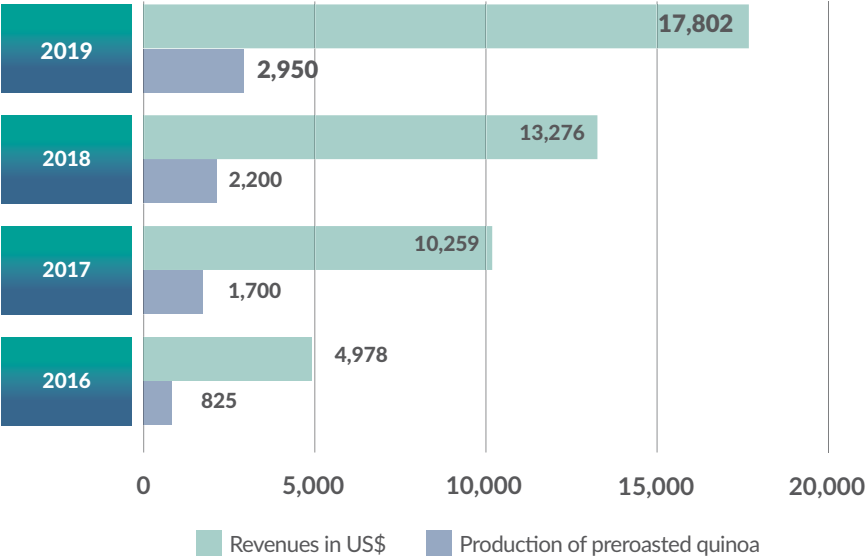
Assistance to primary production of quinoa	Consolidation of transformation of the production chain of the quinoa sector	Promotion of commercialization of the production chain of the quinoa sector
<ul style="list-style-type: none"> • Training in the organic agricultural production system. • Design and implementation of the georeferencing system of organic quinoa plots. • Implementation of systems to collect information from quinoa producers. • Internal inspection of the organic production by APRACCUK. • 304 organic producers from 16 communities with NOP USDA–EU certification. • Development of studies on management systems and business plans for APRACCUK. 	<ul style="list-style-type: none"> • Construction and equipment of bio input and saponin removal plants. • Authorization of the preroasted quinoa plant. • Production of biol and acaricide in the bio input plant. • Three-phase power installation for the quinoa saponin removal plant. • Performance tests at the saponin removal plant. • Business venture of the women's group of Culpina K for the artisanal production of preroasted quinoa. 	<ul style="list-style-type: none"> • Training for APRACCUK staff and communal shop managers in the management of plants and communal shops. • Training for preroasted quinoa producers in marketing and administration. • Preroasted quinoa sales to Newrest. • Participation of APRACCUK and OMECK in regional and national fairs.
		Organizational and business strengthening of the chain <ul style="list-style-type: none"> • Regular meetings of the sectoral platform with the participation of the Municipal Government of Colcha K. • Establishment of the internal certification committee. • Steps taken by the sectoral platform for preparation of the second phase of the project with the Municipality of Colcha K.

Due to problems in the public rural electrification network, the saponin removal plant was connected to the power supply only in 2019, which caused a considerable delay in the testing of the plant's equipment. Therefore, production has not yet started.

However, in years 2016–2019 it was possible to produce a total of 3,487 l of bio inputs and 7,675 kg of artisanal preroasted quinoa. This gave rise to the commercialization of 7,675 kg of quinoa, which generated an income of US\$ 46,315 for the group of women entrepreneurs in quinoa of Culpina K.

More information can be found in the following graph:

Production (kg) and marketing of preroasted quinoa (US\$)
2016 - 2019



QUINOA IN CULPINA K





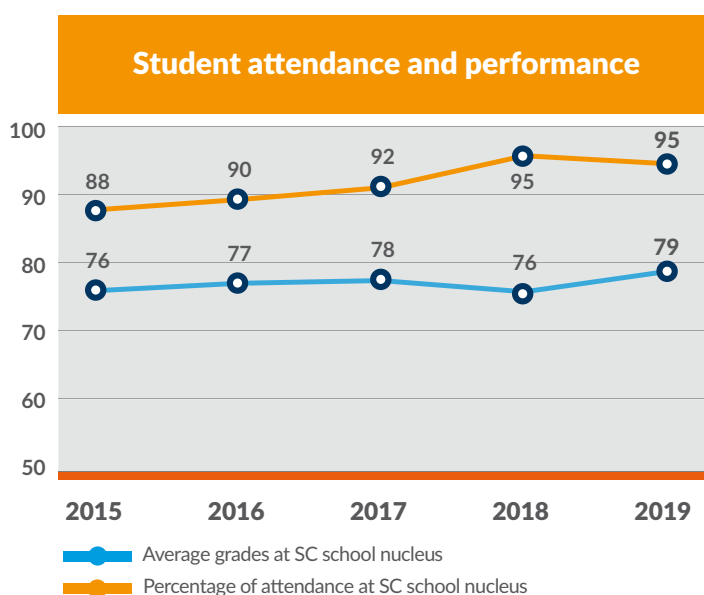
4 postgraduate
scholarships granted
for a master's degree
in Spain.

Education project

In close coordination with the Municipal Government of Colcha K, the Consultative Council Los López San Cristóbal, the Vice Ministry of Alternative Education, the Departmental Directorate of Education of Potosí, the District Directorate of Education, eight schools from six communities and authorities of the communities, the activities of the education project were developed within the framework of the five-year plan 2015-2019. These activities were also part of the plurinational education system laid down in Education Law 070, and thus covered the subsystems of regular, alternative/special and higher education. The most relevant actions are described in the following table:

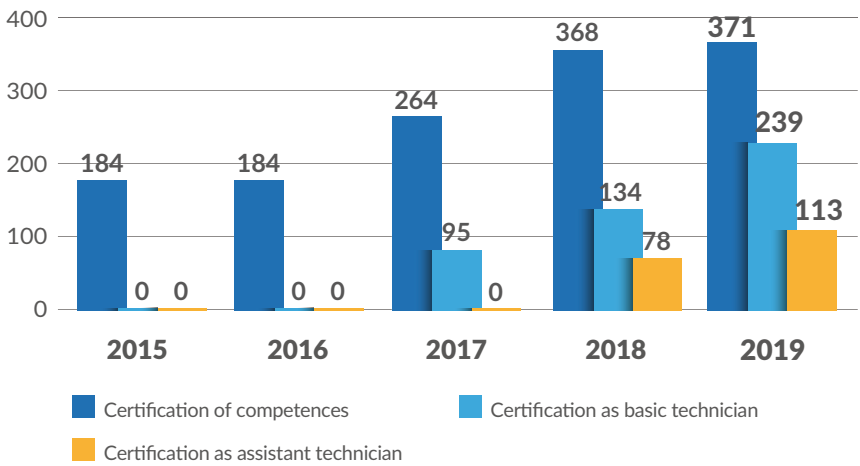
Improvement of regular education	Support for productive alternative education	Support for technical and higher education
<ul style="list-style-type: none"> Establishment of the sectoral platform of the education sector and the pedagogical technical team. Training for teachers in eight schools in vocational guidance, computer science and scientific fields. Exchange of experiences at the Indigenous University "Casimiro Huanca", for the philosophical and political approach in the new socio-community productive law. Implementation of socio-productive projects in two schools in the fields of quinoa and textile/garments. Support in the implementation of audiovisual equipment in five schools. 	<ul style="list-style-type: none"> Management and organization of the evaluation and certification of competences in the fields of quinoa, camelids, gastronomy, handicrafts and garments. Meetings and agreements with the Vice Ministry of Alternative Education and the Departmental Directorate of Education of Potosí for the implementation of training at the level of basic technicians, assistant technicians and mid-level technicians. Implementation of complementary training courses at the level of basic technicians, assistant technicians and mid-level technicians for producers. Certification of producers, artisans and entrepreneurs at the level of basic technicians and assistant technicians. 	<ul style="list-style-type: none"> Award of three annual scholarships to the best students of the Elizardo Pérez school (San Cristóbal), and two scholarships for the Ingavi school (Culpina K). Award of four postgraduate scholarships for a master's degree at the Next Educación Business School in Madrid-Spain. Follow-up of students studying Tourism at the level of senior technician at INFOCAL, funded by Minera San Cristóbal.

Regarding the results achieved in regular education in 2019, we should highlight the improved performance and attendance of students in the schools of San Cristóbal: the average grade was 79 and the attendance rate was 95%, as shown in the following graph:



With regard to the results achieved in alternative education, by 2019 and with the participation of 14 communities, 371 people who acquired competences through work experience were awarded certifications in the fields of quinoa, camelids, gastronomy, handicrafts and garments. At the level of basic technician, 239 people were awarded certificates in the same categories, and 113 people were certified as assistant technicians in quinoa, camelids and gastronomy, as shown in the table with cumulative figures:

Certifications of producers, artisans and entrepreneurs



95%

Student attendance rate

In 2019, in regular education, the average grade was 79 and the attendance rate was 95% in schools of San Cristóbal.



Health project

In coordination with the Municipal Government of Colcha K, the Municipal Health Network SAFCI Colcha K, the Consultative Council Los Lípez San Cristóbal, authorities and Health Committees of the communities of San Cristóbal, Culpina K, Vila Vila and Río Grande, various actions were carried out within the framework of the 2015-2019 five-year plan of the health project. These include:

Achieve operation of the second level hospital	Accredit first level health services	Implement the new SAFCI policy in health services
<ul style="list-style-type: none"> • Twelve coordination meetings with the mayor, the director of Human Development, the medical director of Colcha K and the steering committee for implementation of the second-level hospital in San Cristóbal. • Preparation of the study and final design for the equipment. • Purchase of a 150 kVA transformer. • Collaboration in the hospital infrastructure improvements recommended by SEDES Potosí and the Ministry of Health. • Creation of the steering committee for operation of the hospital. • Participation in the reception of 70% of the equipment obtained by the Municipal Government of Colcha K and financed by the National Health Program of the central government. 	<ul style="list-style-type: none"> • Matching contribution for a consultancy focused on training and the preparation of technical documents for four Health Centers with hospitalization (including Colcha K). • Support in the construction of housing for doctors on duty in the Health Centers with hospitalization of Culpina K and Río Grande. • Monitoring the fulfillment of prerequisites by the health centers to be eligible for accreditation. • Training for health personnel in medical emergencies, hospital waste management, the 5 S's, customer care and others. • Follow-up of evaluation and training processes by the evaluation committee of SEDES Potosí. • Participation and support in the official accreditation events of the health centers with hospitalization of San Cristóbal, Culpina K and Río Grande. 	<ul style="list-style-type: none"> • Meetings of the local health sector platform in the health centers of San Cristóbal, Culpina K, Vila Vila and Río Grande to coordinate activities. • Follow-up of meetings of the Health Information Analysis Committee (CAI). • Support in the organization of multiprogram health fairs in four communities. • Educational sessions on "healthy lifestyle practices" in the communities of San Cristóbal, Culpina K, Vila Vila and Río Grande. • Support in the implementation of situational rooms in the health centers with hospitalization of three communities. • Support for the family medical record processes in the communities of San Cristóbal, Culpina K, Vila Vila and Río Grande.

Accreditation obtained by the three health centers with hospitalization in the communities of San Cristóbal, Culpina K and Río Grande.

One of the most relevant results of the actions implemented within the framework of the five-year plan of the health project is the accreditation obtained by the three health centers with hospitalization in the communities of San Cristóbal, Culpina K and Río Grande, which are members of the Consultative Council.

In 2019, the Municipal Government of Colcha K, with support from the steering committee, managed to purchase equipment for the second-level hospital. 70% of the equipment was received, and the remaining 30% is pending due to the untimely change of government.



On the other hand, it is important to consider that maternal and infant mortality rates in the communities in the direct impact area are considerably low compared to departmental and national rates, as can be seen in the following table:

Mortality Rate	Bolivia	Potosí	Communities
Maternal mortality per 100,000 live births	230	350	0
Infant mortality <1 year per 1,000 live births	24	44	1

Data from Bolivia and Potosí, Population and Health Surveys (EDSA) 2018; data from the Health Centers in the communities.

7.5 Social capital (102-43) (102-44) (103-2) (MM7)

Identification of stakeholders

In order to periodically measure the behavior of our stakeholders, we have a “methodological model of social analysis” initiated and improved since 2010, which is composed of the following dimensions::

- Identification and classification of stakeholders.
- Registration and systematization of events.
- Management of concerns/complaints.
- Operational social risk management.
- Follow-up of the social license to operate.

In 2019, we identified 67 stakeholders in our area of influence, made up of communal authorities, social/productive organizations and public/private institutions. These groups can be found at the local and regional level (the regional reach comprises communities in the indirect impact area and organizations of the municipalities of Colcha K and San Pedro de Quemes in the province of Nor Lítez, a community of the municipality of San Agustín in the province of Enrique Baldivieso and even some organizations in the southwest of the department of Potosí).

The distribution of our stakeholders is as follows:

Stakeholders in MSC's impact area	
Communities	No. of stakeholders
Regional	20
San Cristóbal	15
Culpina K	14
Vila Vila	12
Río Grande	6
TOTAL	67

Registration and systematization of events

Using the information obtained about the perceptions of stakeholders, in meetings with authorities and representatives of organizations, from reports to follow up actions to mitigate impacts and the progress of development projects, we have recorded and systematized events (facts or occurrences that are particularly relevant to us). Thus, in 2019, we recorded 99 events, of which — and based on criteria defined by our organization — 75 were positive and 24 were negative.



**75 POSITIVE
events**



**24 NEGATIVE
events**



We periodically monitor, implement corrective actions and seek the most appropriate solutions for each case, respecting the agreement for conflict resolution.

Management of concerns/complaints

Based on the systematization of the negative events recorded, and based on criteria defined by our organization, we identify concerns (verbal comments of the stakeholder that reflect a degree of concern or unease about a given situation) and/or complaints (dissatisfaction expressed formally, i.e. verbally or in writing) for their respective treatment. In this process, we perform regular monitoring, we implement corrective actions and we seek the most appropriate solutions for each case, respecting the conflict resolution agreement. This agreement was signed with the communities in the area of direct influence in 2005. It states, among others: "... to go to higher levels of the community and the company to resolve conflicts...".

Thus, in 2019 we recorded 24 concerns/complaints, of which 20 were closed during the year and two are ongoing and will be resolved in 2020.

Management of concerns/complaints			
	Received	Closed	Follow-up underway
Complaints	6	6	0
Concerns	18	16	2

The two pending concerns are related to the economic factor and concern the communities of Serena Vinto and Alota (delay in operation of the quinoa saponin removal plant).

Operational social risk management in communities

The cases that were not solved in the management of concerns/complaints, based on criteria defined by MSC, escalate to operational social risks, which are evaluated on a quarterly basis through control measures.

In 2019, we recorded operational social risks, two of which were mitigated:

- delay in the electrical connection for the quinoa saponin removal plant in Culpina K; and
- the general strike of our unionized workers.

Four cases remain pending, as shown in the following table:

Operational social risk management in communities					
Stakeholders	2015	2016	2017	2018	2019
San Cristóbal	1	-	-	1	1
Culpina K	-	-	1	4	3
Total	1	-	1	5	4

Of the four current social risks:

- Two risks are related to the environmental factor: management of the Wila Khara tailings deposit and the quinoa crops from the community of Culpina K, close to the water well field used for the mining operation. In both cases, regular contacts and the dissemination of information through meetings and onsite visits with community authorities were established as control measures.
- Two other risks are related to the social factor: the rejection of the community of Culpina K regarding the connection to the rural electricity grid and the opposition of school teachers in our area of influence to the educational quality assessment. In both cases, the following control measures were taken: monitoring the authorities' determinations and socialization of actions developed in basic services and in the education project.

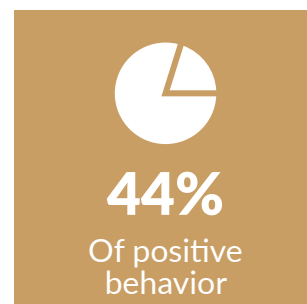
Follow-up of the social license to operate

With the systematization of previously generated information, and based on criteria defined by our organization, we determine the behavior of stakeholders.

Below is the percentage of positive, neutral and negative behavior of stakeholders in 2019:

Follow-up of the social license to operate				
Stakeholders' origin	Qty. of identified stakeholder	Behavior (%)		
		Positive	Neutral	Negative
Regional	20	30	46	24
San Cristóbal	15	33	32	35
Culpina K	14	27	28	45
Vila Vila	12	44	38	18
Río Grande	6	48	50	2

Vila Vila community



Based on the above, we measured the social license to operate at the local and regional level, which in 2019 reached an average value of 3.61.

For more information on the measurement of our SLO at an integral level (all stakeholders), please visit our website: <https://www.minerasancristobal.com/v3/en/inicio/social-environmental-commitment/sustainable-development/>

3.61 SLO

Social License to Operate KPI



MSC staff is involved in management and evaluation of the GRI standards.



MSC has a robust management in training matters and this is also extended to the contractors.



MSC rigorously and thoroughly apply health standards for the benefit of their staff, as well as in support of the communities.

Note: Positive points from the Deloitte Report.

ODS MSC

Minera San Cristóbal
continuously improves
the understanding of
standards, to improve
its processes.



Report from independent auditors

Memorandum of independent review

Independent Review of the Sustainability Report 2019 – Minera San Cristóbal.

Responsibilities of the Management of Minera San Cristobal and Deloitte

The preparation of the 2019 Sustainability Report of Minera San Cristóbal, between January 1st and December 31st of 2019, and its content are the responsibility of the organization which is also responsible for defining, adapting and maintaining management systems and internal control which information is obtained.

Our responsibility is to issue an independent report based on the procedures applied and previously agreed upon for our review.

This Report has been prepared exclusively in the interest of the organization in accordance with the terms of our proposed services. We do not assume any liability to third parties other than the Management of the Organization.

We have performed our work in accordance with the independence regulations required by the ethics code of the International Federation of Accountants (IFAC).

The scope of a limited review is substantially less than an audit. Therefore, we do not provide an audit about the Sustainability Report.

Scope of our work

We have carried out the review of the content adaptation of Minera San Cristóbal Sustainability Report 2019, to the Guide for the preparation of Sustainability Reports of the Global Reporting Initiative (GRI Standards) and the review of progress in managing ICMM gaps for 2019 corresponding to the principles that had observations / gaps in the 2018 review. Within this review, the reporting and management activities of each of the principles and the totality of position statements that did not have associated gaps were not included.

Standards and review processes

We have carried out our work in accordance with ISAE 3000 - International Standard on Assurance Engagements Other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standard Board (IAASB) of the International Federation of Accounts (IFAC).

Our review work consisted in the formulation of questions to the Administration, as well as to the different areas and operations of Minera San Cristóbal that have participated in the elaboration of the Sustainability Report 2019 and in the management of ICMM gaps, in the application of analytical procedures and tests of revision by sampling that is described below:

- Interviews with Minera San Cristóbal employees to know about the principles, management approaches and data consolidation systems applied to prepare the Report and to close the gaps associated with ICMM's assurance principles according to their scope.
- Limited analysis of how the content, structure and indicators were defined based on the materiality exercise according to the GRI Standards.
- Analysis of the processes to collect and validate the data presented in the report.
- Checking, by sample, testing and review of quantitative and qualitative evidence corresponding to the GRI and Minera San Cristóbal internal indicators included in the 2019 Sustainability Report, and proper compilation from the data supplied by Minera San Cristóbal the sources of information.

Confirmation that the 2019 Sustainability Report of Minera San Cristóbal has been prepared in accordance with the GRI Standards: Core option.

General contents:

It was confirmed that the report conforms to the requirements of the core option "in accordance" with the GRI Standards regarding the general basic contents.

Specific contents:

We review the management approach, the GRI internal contents of its material issues:

Asuntos materiales	Indicador GRI y/o Propio de Alianza Team
General content	102-6, 102-11, 102-12, 102-13, 102-14, 102-17, 102-20, 102-25, 102-32, 102-33, 102-34, 102-41, 102-43, 102-44.
Water	303-1, 303-2, 303-3.
Economic Benefits	203-2, 204-1.
Biodiversity / Protected areas	304-1, 304-3, 304-4
Climate change	305-1.
Training and professional development	404-1.
Product life cycle	102-2.
Work climate (Culture)	404-3.
Labor cost and productivity	201-1.
Human rights	411-1.
Discrimination	406-1.
Energy	302-1, 302-4.
Waste management	306-1.
Comprehensive risk management	102-15, 102-29, 102-30, 102-31
LSO (Social License to Operate)	102-21, MM7, MM9
Closure Plan and Oxides Project	MM10.
Relations with the union	407-1.
Corporate reputation	102-16, 102-18, 307-1, 419-1.
Health and Safety (Zero lost time fatalities or injuries)	403-3, 403-2, 403-1.
Alternative job for local entrepreneurs	203-1
Child labor in providers (Human rights)	408-1.
Transparency	205-3.
Wila Khara (Queue Deposit)	MM3

In parallel, we reviewed the progress in managing the ICMM gaps identified in the immediately previous year, shared with both the managers of Minera San Cristóbal and the ICMM group of experts. As part of this review, Deloitte validated the documents evidencing the activities defined for closing each of the identified gaps, the times and responsible for them, and the state of progress according to the closing schedule.

Conclusions

Based on the work carried out described in this report, the procedures carried out and the evidence obtained, no subject matter has come to our knowledge that leads us to think that the indicators within the scope of the review and included in the 2019 Sustainability Report of Minera San Cristóbal for the period between January 1st and December 31st 2019, have not met all the requirements for the preparation of reports in accordance with the essential option of the Global Reporting Initiative (GRI) Standards. For those indicators of the GRI Standards where Minera San Cristóbal did not report quantitatively (figures), only the qualitative information that included procedures, policies, evidence of activities carried out, among others, was reviewed.

With respect to ICMM, Deloitte identified that Minera San Cristóbal is developing in a meticulous and coordinated manner activities that allow closing the gaps identified in previous years with respect to the management associated with the ICMM assurance principles.

Alternative lines of actions

Deloitte has provided Minera San Cristóbal with a report with the most significant alternatives of action for the future preparation of Reports, which do not modify the conclusions expressed in this report, also a few observations that will strengthen the consolidation, management, measurement and communication processes of the organization's sustainability performance.

Declaration of Independence

We confirm our independence from Minera San Cristóbal. All of our employees carry out annual updates to the Ethics Policy where we promptly declare that we have no conflicts of interest with Minera San Cristóbal, its subsidiaries and its stakeholders.



Deloitte asesores y consultores
Jorge Enrique Múnera D.
Partner

Bogotá, July 2020

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The SDGs, the ICMM principles and the GRI standards are aligned to promote Sustainable Development.



The GRI standards, a management tool to improve our performance in a comprehensive manner.

ODS MSC

The GRI Standards create a common language for organizations and stakeholders, with which the economic, environmental, and social impacts of organizations can be communicated and understood (GRI 101: Foundation).



9 GRI content index

GRI CONTENT INDEX (102-55)

GRI Standard	Material topic	Location	Page Number/ Omission	ICMM		SDG
				Related principles	Related position statements	
102-1. Name of the Organization	General content	About Minera San Cristóbal				
102-2. Activities, brands, products and services	Product Lifecycle	About Minera San Cristóbal / Infographic: Our company				
102-3. Location of headquarters	General content	About Minera San Cristóbal / Our company				
102-4. Location of operations	General content	About Minera San Cristóbal / Our company				
102-5. Ownership and legal form	General content	Ethics and Business Conduct / Corporate governance structure				
102-6. Markets served	General content	About Minera San Cristóbal / Infographic: Our company				
102-7. Scale of the organization	General content	About Minera San Cristóbal / Operational highlights				
102-8. Information on employees and other workers	General content	Our People / Infographic: Our People				8
102-9. Supply chain	Concentrate export logistics	About Minera San Cristóbal / Infographic: Our company				
102-10. Significant changes to the organization and its supply chain	General content	About Minera San Cristóbal / Operational highlights				
102-11. Precautionary Principle or approach	General content	Environment / Approach		2,4		
102-12. External initiatives	General content	Our sustainability approach / Commitment to external initiatives		10		17
102-13. Membership of associations	General content	Our sustainability approach / Memberships and Associations		2	Mining associations for development	17
102-14. Statement from senior decision-makers	General content	About Minera San Cristóbal / Message from the President and General Manager		2		
102-15. Main impacts, risks and opportunities	Comprehensive risk management	Ethics and business conduct / Comprehensive risk management		2,4		

GRI CONTENT INDEX

GRI Standard	Material topic	Location	Page Number/ Omission	ICMM		SDG
				Related principles	Related position statements	
102-16. Values, principles, standards and norms of behavior	Corporate Reputation	About Minera San Cristóbal / Our values		1,2		16
102-17. Mechanisms for advice and concerns about ethics	General content	Ethics and Business Conduct / Code of Ethics and Business Conduct		1,2		16
102-18. Governance structure	Corporate Reputation	Ethics and Business Conduct / Corporate governance structure		1,2		
102-20. Executive-level responsibility for economic, environmental and social topics	General content	Ethics and Business Conduct / Corporate governance structure		1,2		
102-21. Consulting stakeholders on economic, environmental and social topics	SLO (Social License to Operate)	About Minera San Cristóbal / Material Topics		1,2,10		16
102-25. Conflicts of interest	General content	Ethics and Business Conduct / Code of Ethics and Business Conduct / Ethics and Business Conduct / Whistleblower Regulation		1,2		16
102-29. Identifying and managing economic, environmental and social impact	Comprehensive risk management	Ethics and Business Conduct / Comprehensive risk management		1,2		16
102-30. Effectiveness of risk management processes	Comprehensive risk management	Ethics and Business Conduct / Comprehensive risk management		1,2,4		
102-31. Review of economic, environmental and social topics	Comprehensive risk management	Ethics and Business Conduct / Comprehensive risk management		1,2,4		
102-32. Highest governance body's role in sustainability reporting	General content	About Minera San Cristóbal / Material Topics		1,2		
102-33. Communicating critical concerns	General content	Ethics and Business Conduct / Whistleblower Regulation		1,2,10		
102-34. Nature and total number of critical concerns	General content	About Minera San Cristóbal / Stakeholders and materiality / Identification of stakeholders		1,2,10		
102-40. List of stakeholders	General content	About Minera San Cristóbal / Stakeholders and materiality / Identification of stakeholders		10		
102-41. Collective bargaining agreements	General content	Our People / Labor relations		3		8

GRI CONTENT INDEX

GRI Standard	Material topic	Location	Page Number/ Omission	ICMM		SDG
				Related principles	Related position statements	
102-42. Identifying and selecting stakeholders	General content	About Minera San Cristóbal / Stakeholders and materiality / Identification of stakeholders		10		
102-43. Approach to stakeholder engagement	General content	About Minera San Cristóbal / Stakeholders and materiality / Identification of stakeholders		10		
102-44. Key topics and concerns raised	General content	About Minera San Cristóbal / Stakeholders and materiality / Identification of stakeholders		10		
102-45. Entities included in the consolidated financial statements	General content	Economic performance and contributions / Indirect economic impact				
102-46. Defining report content and topic boundaries	General content	About Minera San Cristóbal / Stakeholders and materiality / Identification of stakeholders				
102-47. List of material topics	General content	About Minera San Cristóbal / Stakeholders and materiality / Determination of material topics				
102-48. Restatements of information	General content	Economic performance and contributions / Indirect economic impact				
102-49. Changes in reporting	General content	Economic performance and contributions / Economic performance				
102-50. Reporting period	General content	About Minera San Cristóbal / About this report and verification		10		
102-51. Date of most recent report	General content	About Minera San Cristóbal / About this report and verification				
102-52. Reporting cycle	General content	About Minera San Cristóbal / About this report and verification		10		
102-53. Contact point for questions regarding the report	General content	We value your comments		10		
102-54. Claims of reporting in accordance with the GRI Standards	General content	About Minera San Cristóbal / About this report and verification				
102-55. GRI content index	General content	GRI content index				
102-56. External assurance	General content	About Minera San Cristóbal / About this report and verification				

GRI CONTENT INDEX

GRI Standard	Material topic	Location	Page Number/ Omission	ICMM		SDG
				Related principles	Related position statements	
103-1.	Explanation of the material topic and its boundary	General content	About Minera San Cristóbal / Stakeholders and materiality Determination of material topics			
103-2.	The management approach and its components	General content	Ethics and business conduct / Human rights Our People / Employee Grievance Mechanisms Environment / Environmental complaints Neighboring communities / Community relations management Neighboring communities / Social capital	10		3, 5, 6, 8, 9, 10, 11, 13, 15, 16, 17
103-3.	Evaluation of the management approach	General content	Our Sustainability Approach / Sustainable development management			
201-1.	Direct economic value generated and distributed	Cost of labor and productivity	Economic performance and contributions / Economic performance	9,10	Transparency in revenues from the mining sector	2, 5, 8, 9
202-2.	Proportion of senior management hired from the local community	Best labor practices	Our People / Local hires	9		8
203-1.	Infrastructure investments and services supported (communities)	Alternative employment for local entrepreneurs	Economic performance and contributions / Indirect economic impact Economic performance and contributions / Investing in the communities	9	Indigenous peoples and mining	2, 5, 7, 9, 11
203-2.	Significant indirect economic impacts	Economic Benefits	Economic performance and contributions / Indirect economic impact	9	Transparency in revenues from the mining sector	1, 2, 3, 8, 10, 17
204-1.	Proportion of spending on local suppliers	Economic Benefits	Economic performance and contributions / Local procurement and our relationship with local suppliers	9		12
205-1.	Operations assessed for risk related to corruption	Comprehensive risk management	Ethics and business conduct / Anti-Corruption/Anti-Bribery	1		16
205-2.	Communication and training about anti-corruption policies and procedures	Transparency	Ethics and business conduct / Anti-Corruption/Anti-Bribery	1,2	Omission: The information is not fully structured according to what is specified in the standard.	16
205-3.	Confirmed incidents of corruption and actions taken	Transparency	Ethics and business conduct / Anti-Corruption/Anti-Bribery	1		

GRI CONTENT INDEX

GRI Standard	Material topic	Location	Page Number/ Omission	ICMM		SDG
				Related principles	Related position statements	
302-1. Energy consumption within the organization	Energy	Environment / Energy		6	Climate change	7, 12, 13
302-3. Energy intensity	Energy	Environment / Energy		6		7, 12, 13
302-4. Reduction of energy consumption	Energy	Environment / Energy		6		7, 12, 13
303-1. Water withdrawal by source	Water	Environment / Water efficiency		6	Water	6
303-2. Water sources significantly affected by withdrawal of water	Water	Environment / Water efficiency		6	Water	6
303-3. Water recycled and reused	Water	Environment / Efficient use of water / Industrial water consumption (2015-2019)		6	Water	6
304-1. Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Biodiversity/ Protected Areas	Environment / Climate change and biodiversity		7	Mining and protected areas	15
304-2. Significant impacts of activities, products and services on biodiversity	Biodiversity/ Protected Areas	Environment / Climate change and biodiversity		7	Mining and protected areas	15
304-3. Protected or restored habitats	Biodiversity/ Protected Areas	Environment / Climate change and biodiversity		6,7		15
304-4. IUCN Red list species and national conservation list species with habitats in areas affected by operations	Biodiversity/ Protected Areas	Environment / Climate change and biodiversity	Omission: The information associated with the number of species is not classified according to the extinction risk of the IUCN RedList.			15
305-1. Direct (Scope 1) GHG emissions	Climate change	Environment / Emissions / Greenhouse gases		6	Climate change	7, 12, 13
305-2. Energy indirect (Scope 2) GHG emissions	Climate change	Environment / Emissions / Greenhouse gases		6	Climate change	7, 12, 13
305-4. GHG emissions intensity	Climate change	Environment / Emissions / Greenhouse gases		6	Climate change	7, 12, 13

GRI CONTENT INDEX

GRI Standard	Material topic	Location	Page Number/ Omission	ICMM		SDG
				Related principles	Related position statements	
305-5. Reduction of GHG emissions	Climate change	Environment / Emissions / Greenhouse gases		6	Climate change	7, 12, 13
306-1. Water discharge by quality and destination	Waste Management	Environment / Waste management / Waste rock dumps		6	Water	3, 6, 12
306-2. Waste by type and disposal method	Waste Management	Environment / Waste management / Solid waste		6		3, 6, 12, 15
306-3. Significant spills	Waste Management	Environment / Significant spills		6		3, 6, 12, 15
307-1. Non-compliance with environmental laws and regulations	Corporate Reputation	Environment / Approach		6		16
401-1. New employee hires and employee turnover	Employment	Our People / Changes in human resources				5, 8
401-2. Benefits provided to full-time employees that are not provided to temporary or part-time employees	Best labor practices	Our People / Changes in human resources				8
401-3. Parental leave	Best labor practices	Our People / Changes in human resources				
403-1. Workers representation in formal joint management-worker health and safety committees	Health and Safety (0 fatalities or injuries with lost time)	Our People / Hygiene, occupational safety and wellbeing mixed committee		5		5, 8
403-2. Types of injury and rates of injury, occupational diseases, lost days, and absenteeism and number of work-related fatalities	Health and Safety (0 fatalities or injuries with lost time - Commitment)	Our People / Health and safety / Health and safety performance Our people / Health		5		3, 8
403-3. Workers with high incidence or high risk of diseases related to their occupation	Health and Safety (0 fatalities or injuries with lost time)	Our People / Health / Occupational health program		5		3, 8
403-4. Health and safety topics covered in formal agreements with trade unions	Relations with the union	Our people / Labor relations / Agreements signed		5		8
404-1. Average hours of training per year per employee	Training and professional development	Our People / Training and development		5		4, 8

GRI CONTENT INDEX

GRI Standard	Material topic	Location	Page Number/ Omission	ICMM		SDG
				Related principles	Related position statements	
404-3. Percentage of employees receiving regular performance and career development reviews	Working climate (Culture)	Our People / Training and development		3		5
405-1. Diversity of governance bodies and employees	Gender equity/ inclusion	Our people / Local hires / MSC employees by place of residence		6		5, 8
405-2. Ratio of basic salary and remuneration of women to men	Gender equity/ inclusion	Our People / Gender equality				5, 8, 10
406-1. Incidents of discrimination and corrective actions taken	Discrimination	Our People / Employee Grievance Mechanisms		3		5, 8, 16
407-1. Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Relations with the union	Our People / Labor relations		3		8
408-1. Operations and suppliers at significant risk of child labor	Child labor among suppliers (Human Rights)	Our People / Employee Grievance Mechanisms		3		8, 16
411-1. Incidents of violations involving rights of indigenous peoples	Human Rights	Neighboring communities / Area of Influence		3	Indigenous peoples and mining	2, 10
413-1. Operations with local community engagement, impact assessments, and development Programs	Sources of work after closure (social)	Neighboring communities / Community relations management / Development projects The activities with local communities are associated with the only MSC operation; therefore, the scope is 100% of the operations.		9		11, 16, 17
415-1. Political contributions	Transparency	About Minera San Cristóbal / Stakeholders and materiality		1		16

GRI CONTENT INDEX

GRI Standard	Material topic	Location	Page Number/ Omission	ICMM		SDG
				Related principles	Related position statements	
419-1.	Non-compliance with laws and regulations in the social and economic area	Corporate Reputation	Economic performance and contributions / Approach	4		16
MM3.	Total amounts of overburden, rock, tailings, and sludges and their associated risks	Wila Khara (Tailings deposit)	Environment / Waste management / Plant tailings	7	Tailings governance	3, 6, 12
MM4.	Number of strikes and lock-outs exceeding one week's duration, by country	Relations with the union	Our people / Labor relations / Agreements signed	3		8
MM5.	Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities	SLO (Social License to Operate)	Neighboring communities / Approach / Infographic: Area of influence Our only operation (100%) is carried out in areas adjacent to indigenous peoples' territories; therefore, the four communities of direct influence have signed formal agreements (100%).	3,10	Indigenous peoples and mining	1, 2, 16
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	SLO (Social License to Operate)	Neighboring communities / Social capital	9,10	Indigenous peoples and mining	1, 2, 11,16
MM9.	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	SLO (Social License to Operate)	Neighboring communities / Approach / Resettlement and mitigation of impacts	3,10		1, 2, 11
MM10.	Number and percentage of operations with closure plans	Closure Plan and Oxides Project	Environment / Mine closure planning 100% of MSC's operations have a closure plan.	6,9		11

Glossary

Definitions

5 S's: A process management method of Japanese origin based on five principles whose initials are the letter S: Seiri (classification), Seiton (order), Seiso (cleanliness), Seiketsu (standardize) and Shitsuke (maintain discipline).

Animal pen: A place where shepherds collect livestock to protect it from the weather.

Bischofite: Magnesium chloride mineral. The bischofite solution is applied to unpaved roads as a dust suppressor.

Ch'alla: A traditional gathering in which liquor is poured on the ground in homage to Mother Earth or Pachamama. A celebration with food and drink.

Deloitte: A global company present in 154 countries that provides advice and services in the field of corporate responsibility/sustainability, auditing, finance, risks, taxes and legal issues.

Gap Analysis: Gap Analysis.

Golden Rules: An incident prevention tool based on the verification and control of activities with High Loss Potential; there are nine Golden Rules.

HazCom: Hazard Communication. An OSHA standard that provides the requirements to communicate the hazards of chemicals to which workers are exposed.

Jerky: Salted meat dried in the open air or in the sun for dehydration and preservation.

Newrest: Catering and hotel services contractor.

Pit: The open pit from which ore is exploited.

Region: The geographical space located in the southwest of Potosí that constitutes MSC's area of direct and indirect relations.

Reservoir: A reservoir for containing runoff water.

Saponin removal: A process by which saponin is extracted from quinoa, so that it would lose its bitter taste.

SDG Compass: Methodological guide for companies on how to align their strategies, measure and manage their contribution to SDGs.

Tailings deposit: A deposit where mineral processing waste is stored.

Top soil: Organic soil on the surface.

Traditional reproduction center: A place where the management and isolation of male llama breeding animals are carried out, in order to ensure the improvement of camelids.

Triple Seal: A social protection standard related to the prevention of child labor, forced labor and discrimination.

Abbreviations and acronyms:

ACGIH: American Conference of Governmental Industrial Hygienists.

AEO: Authorized Economic Operator.

AMO: Approved Maintenance Organization.

APRACCUK: Association of Agricultural Producers of the Community of Culpina K.

APROSAC: San Cristóbal Camelid Producers Association.

ARD: Acid Rock Drainage

ARMAVI K: Regional Association of Vicuña Producers

ART: Risk analysis at work.

BMS: Business Management System.

CAPIS: Drinking Water and Sanitary Infrastructure Committees.

CECI: Centre for International Studies and Cooperation.

CI: Conservation International.

CIPAET: Integral Ecotourism Artisanal Productive Center of the community of Vila Vila.

CODESPA: Foundation for Development Cooperation and Promotion of Assistance Activities.

GHG: Greenhouse Gases.

GRI: Global Reporting Initiative.

IAASB: International Auditing and Assurance Standards Board.

ICMM: International Council on Mining and Metals.

IDB: Inter-American Development Bank.

IEC: International Electrotechnical Commission.

INFOCAL: National Vocational Training Institute.

IRO: Golden Rules Inspection.

IS-BAO: International Standard for Business Aircraft Operations.

ISO: International Standardization Organization.

ISOP: Operational Safety Inspection.

MSC: Minera San Cristóbal.

MSHA: Mine Safety and Health Administration.

NB: Bolivian Standard.

NIOSH: National Institute of Occupational Safety and Health.

NOP EU: National Organic Program of the European Union.

NOP USDA: National Organic Program of the United States Department of Agriculture.

OEL: Occupational Exposure Limit of the Communities of Colcha K.

OMECK: Organization of Women Entrepreneurs of Culpina K.

ORA: Occupational Risk Agent.

OSHA: Occupational Safety and Health Administration.

PEs: Performance Expectations.

pH: potential of Hydrogen.

PPE: Personal Protective Equipment.

PROINPA: Foundation for the promotion and research of Andean products.

RAI: Industrial Environmental Registry.

SAFCI: Community-based and Intercultural Family Health Program.

SDGs: Sustainable Development Goals.

SEDES: Departmental Health Service.

SENASAG: National Service of Agricultural Health and Food Safety.

STOP: Safety at work through preventive observation.

TIOC: Native Indigenous Peasant Territory.

UATF: Universidad Autónoma Tomás Frías.

USDA: United States Department of Agriculture.

VPT: Previous work verification.

WBCSD: World Business Council for Sustainable Development.





MINERA SAN CRISTÓBAL S.A.

www.minerasancristobal.com



TOLDOS CAMP

Nor Lipez Province
Potosí, Bolivia
P: (591-2) 2153777
info@minerasancristobal.com

POTOSÍ

Tarija Street N°12
Potosí, Bolivia
P: (591-2) 612-0487
F: (591-2) 612-0486
info@minerasancristobal.com

LA PAZ

Calacoto, 15th Street
Torre KETAL Building, 5th floor
La Paz, Bolivia
P: (591-2) 262-3400
F: (591-2) 211-7950
info@minerasancristobal.com