



Sustainable Development



Sustainable Development

Codelco has implemented a new sustainable development vision at its mining operations. It has systematically invested in sustainable development since the 1990s and even more so since 2000, transforming these management scopes.

In 2011, in order to implement this sustainable transformation, the Company launched two structural projects, one in occupational health and safety, and another in environment and communities. In this context, Codelco's sustainability management goals are:

- Protect the life of everyone who works for the Company, to eliminate fatal accidents and occupational diseases.
- Environmental care, close the socio-environmental gaps at operations.
- Develop communities near operations, putting into practice a new community engagement model.

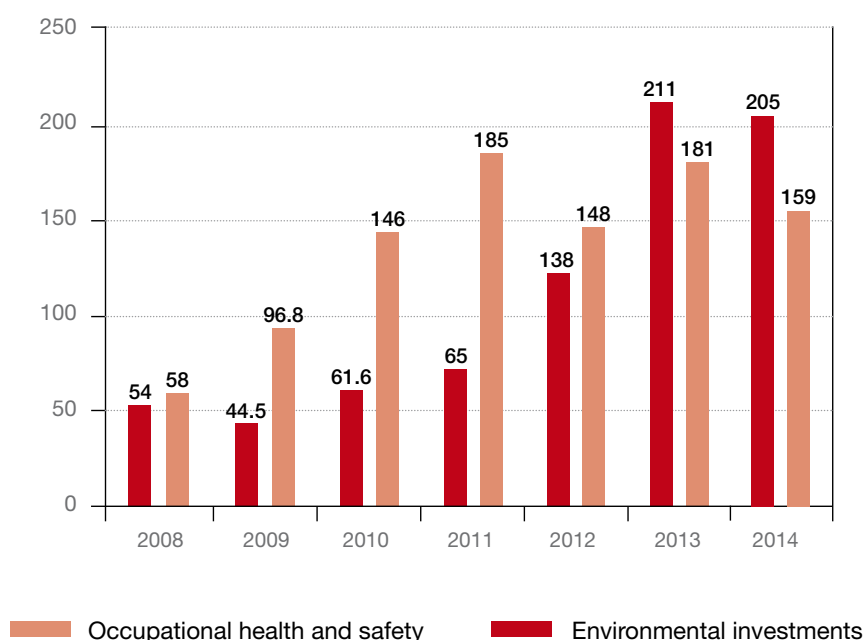
In 2014, occupational health and safety management focused on the systematic installation process, at Codelco's operations and projects, of all the structural project tools, standards and guidelines, through an Occupational Health and Safety Management System and special contractor and subcontractor regulations.

The main environmental and community management challenge was to move from the structural project to the Environmental Risk Management System and the new Community Development Model. The goal is to continuously and systematically install the new tools, standards and modes of operation.

Sustainable Investment

Codelco invested US\$ 364 million in environmental and occupational health and safety projects in 2014. US\$ 205 million went to environmental investments and US\$ 159 million to occupational health and safety initiatives.

Environmental, occupational health and safety investment (USD millions)



Occupational Health and Safety Structural Project

In 2014, structural project management was consolidated after implementing all the fatality, workplace health, behavioural safety, leadership and learning control standards.

The structural project was also linked to the Occupational Health and Safety Management System.

In this respect, efforts focused on defining and agreeing on a new management system structure, to ensure a standard and systematic management at divisions and projects, and which will become official in 2015.



At Codelco, protecting the life of everyone who works at the Company is the main and general goal of management. In this context, in 2014 the Company's critical risks were identified, using fatality and workplace health control standards. Two critical health risks were defined: exposure to silica dust and nineteen safety risks, in different fields such as energy, forms of energy released and electrical equipment; working at height, suspended loads, terrain failures, exposure to atmospheric hazards, fire, contact with extreme temperatures, conduction, falling objects, contact with hazardous substances, rail operation and avalanches.

The definitions were based on a participative and interactive process with all the organisational staff.

The following participated in this process:

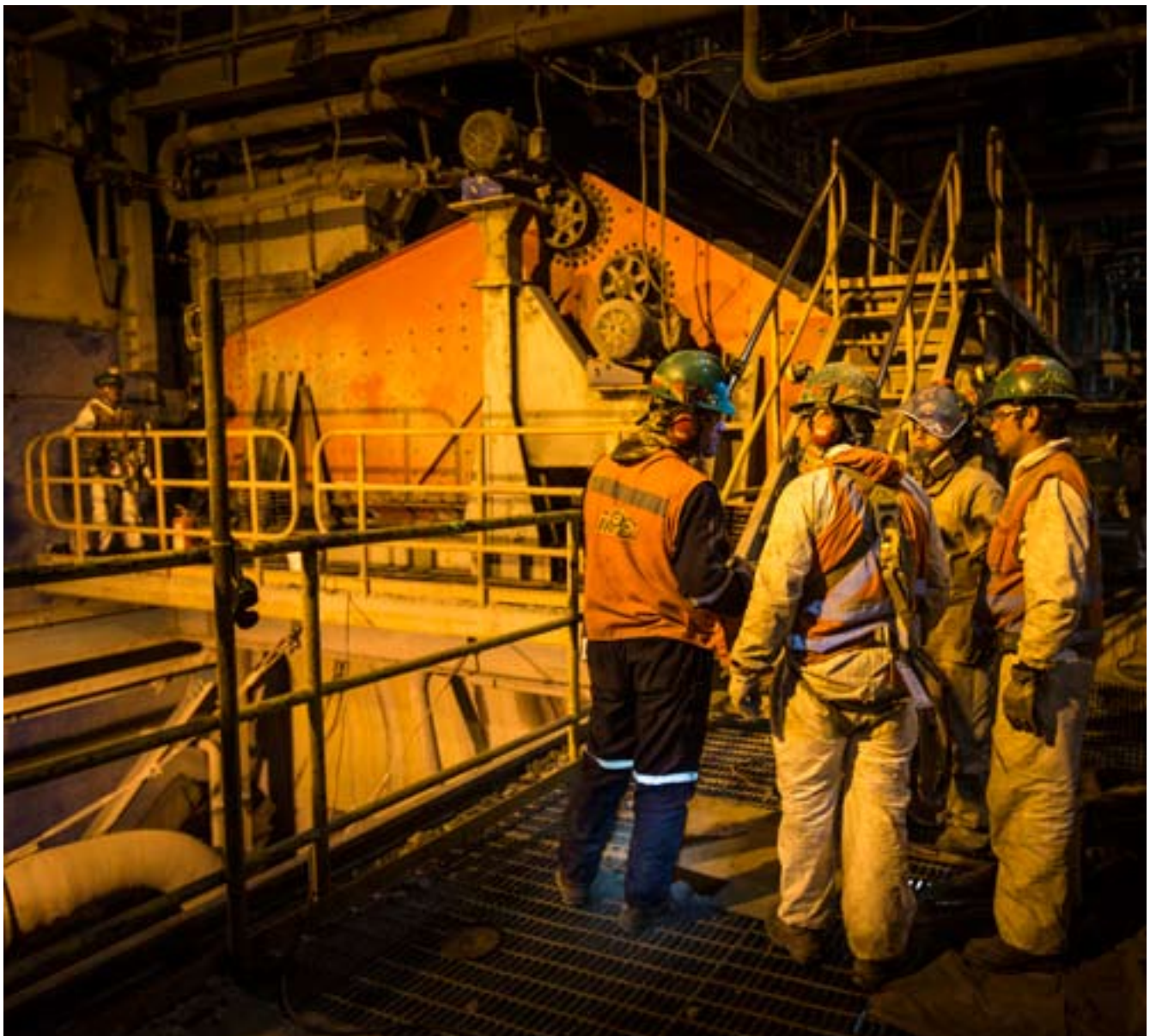
- 130 executives (general managers and operation managers from all divisions and projects), especially to define the Company's 10 top critical risks.
- 1,639 employees, from each operating and maintenance department, validated these criteria.
- 40 specialists (such as electricians, mining specialists, and geologists) helped to prepare each of the performance standards.
- 75 Health and Hygiene Parity Committee members from divisions and projects collaborated in the process.

In addition to identifying the critical risks, 4 to 5 critical controls and a verification card were defined for each supervisor and employee. To complete the cycle, a performance standard was created that contains the key criteria for the department's manager and superintendent to apply controls. The implementation of this process was audited in June-July and October-November; the corporate result was 94%. These standards were implemented in 2015.

Therefore, a continuous and systematic management process was developed to control and eliminate severe accidents, fatalities and occupational diseases in the Company and to maintain it in time.

Fatality Control

Codelco continued its quarterly checks to ensure compliance of fatality control standards at all its operations.



Workplace Health

Divisions and projects continued applying workplace health standards. A preventive model was used that includes identification of health risk factors and agents, assessment and control to prevent occupational diseases and work-related accidents.

Critical processes for occupational hygiene, ergonomics, fatigue and sleepiness factors were optimised. The workplace health processes were also maintained, through medical surveillance of exposed workers and pre-employment and occupational medical examinations.

In occupational hygiene and ergonomics, risk assessment was optimised based on similar exposure groups. Both disciplines incorporated reporting and monitoring required for corrective actions.

The traceability of the environmental surveillance process was verified; gaps were reduced to control silica at its origin and tests were run to adjust respiratory protective equipment to control workers' exposure. The selection criteria for respiratory protective equipment

were also reviewed and the process and operation factors were defined.

In ergonomics, the musculoskeletal risk factor assessment criteria were evaluated, to optimise the definition of exposed workers who should be supervised as per the "Medical Surveillance Protocol for workers exposed to risk factors of work-related upper-limb musculoskeletal disorders," that will be implemented in 2015. Furthermore, a workplace gap-closing plan and critical tasks were defined with the assessment results.

Key issues involved in fatigue and sleepiness management were identified, focusing action on companies and critical groups through health and technology, communication and early warning management.

Progress was made towards standardising personal protective equipment (PPE) and protective clothing. A technical team was created for all divisions to develop a corporate PPE matrix. The technical specifications were defined and the minimum specifications required to purchase this equipment.





Behavioural Safety and Leadership

In 2014, compliance of the annual executive leadership programme was 94%. Its main activities focused on establishing direct contact with workers, recognising safe practices and preventive communication based on a monthly monitoring plan across the Company.

The behavioural safety process involves direct worker participation in occupational health and safety management. Codelco has trained 11,800 observers who made 203,070 observations and observed 1,341,778 behaviours in 2014. For each observation identified, unsafe behaviours are immediately recorded and corrected, and safe behaviours are strengthened. Therefore, each observer directly contributes to building a preventive culture.

Learning

In accordance with the workplace incident and accident guidelines, in effect since 2012, and its incident investigation procedure, known as EVITA, Codelco moved towards investigation excellence, detecting the organisational factors and failed or absent protective measures, that cause high-potential incidents.

At the end of the year, incident learning was 92% in compliance, and key events were: learning investigation procedure, applying uniform criteria across the organisation and communicating corrective measures as lessons learned for the whole company.

Occupational Health and Safety Indicators

Accident Rate

Codelco had to regret the death of two workers in 2014, both from the New Mine Level project under Project Vice-Presidency.

Respect for human life and dignity is a key value for Codelco. Because the protection of life is a priority for the Company, not achieving our target of zero fatal accidents is a pending task, even if in 2014 fatal accidents fell by 50% compared to the prior year. The Company strengthened compliance of risk controls.

Fatal accidents 2014

Date 2013	Age	Gender	Business Unit	Staff	Employer	Accident
October 20	35	Male	Project Vice-Presidency - New Mine Level	Contractor	Salfa Montajes	For reasons currently under investigation, the head electrical technician entered into contact with electricity at substation No.3. Although he was administered first aid and CPR, the worker died.
November 7	42	Male	Project Vice-Presidency - New Mine Level	Contractor	Construction of Mining Tunnels CTM	The worker entered to operate the roboshot machine, to build the walls. There was a loud noise and shotcrete and rock fell between Pk 2+700, approximately. The staff involved evacuated the area; the operator remained in the area. Subsequently, staff returned to the area and realised the worker was covered by fallen material.

Overall Accident Frequency Rate

Codelco had an overall frequency rate (own staff and contractors) of 1.32 accidents per million hours worked in 2014, up 4.5% from 2013 (1.26).

Overall Severity Rate

The overall severity rate (own staff and contractors) was 230 days lost-time injuries per million hours worked in 2014. This is 8% down from 249 days in 2013.

Prevention Indicators

In 2014, the following prevention indicators were included in Occupational Health and Safety management: serious incident reporting, visible leadership and behaviour observations.

Proactive indicators (based on E-100 & E200)

	Serious incident reporting	Visible leadership	Behaviour observations	Observed behaviour	Average staff (own + contractor)
Radomiro Tomic	39,092	22,407	20,669	203,401	7,015
Chuquicamata	118,477	126,300	76,008	244,677	15,194
Ministro Hales	39,364	9,887	14,077	114,168	4,695
Gabriela Mistral	42,883	12,901	9,985	52,929	4,084
Salvador	20,569	19,831	2,965	38,542	5,329
Andina	57,870	51,171	18,434	209,833	9,070
Ventanas	26,834	34,344	3,592	55,946	2,330
El Teniente	92,115	96,925	50,293	362,296	16,105
Projects	27,115	26,242	7,047	59,986	10,432
Codelco	464,319	400,008	203,070	1,341,778	74,255

Proactive indicators by person (based on E-100 & E200)

	Serious incident reporting	Visible leadership	Behaviour observations	Observed behaviour	Average staff (own + contractor)
Radomiro Tomic	5.6	3.2	2.9	29	7,015
Chuquicamata	7.8	8.3	5.0	16	15,194
Ministro Hales	8.4	2.1	3.0	24	4,695
Gabriela Mistral	10.5	3.2	2.4	13	4,084
Salvador	3.9	3.7	0.6	7	5,329
Andina	6.4	5.6	2.0	23	9,070
Ventanas	11.5	14.7	1.5	24	2,330
El Teniente	5.7	6.0	3.1	22	16,105
Projects	2.6	2.5	0.7	6	10,432
Codelco	6.3	5.4	2.7	18.1	74,255

Key Results

- Three years without fatal accidents at Chuquicamata Division.
- Two years without fatal accidents at Salvador, Andina, Ventanas and El Teniente Division.
- Head Office completed more than 800 days without lost-time injuries.
- In September 2014, for the first time in its history, Codelco completed 12 consecutive months without fatal accidents at its divisions and projects.

Occupational Diseases

In 2014 there were 43 new own staff disability resolutions. Of these, 8 were due to silicosis, 20 to hypoacusia, 10 to musculoskeletal disorders and 5 sequelae of workplace accidents.

*New resolutions for active workers with disability resolutions by diagnosis
Law 16.744
At 31 December 2014*

Diagnosis	Delegated administration					Mutual			Total
	Chuq.	Salvador	Andina	El Teniente	Total AD	RT	Ven	Total Mutual	
Silicosis	0	2	5	1	8	0	0	0	8
Hipoacusia	1	6	1	10	18	1	1	2	20
Musculoskeletal	0	8	0	2	10	0	0	0	10
Other diseases	0	0	0	0	0	0	0	0	0
Total EP	1	16	6	13	36	1	1	2	38
WP sequelae	0	3	1	1	5	0	0	0	5
Total	1	19	7	14	41	1	1	2	43



Environment

Codelco's environmental management is based on its Sustainable Development Policy (2012), it updates its environmental and community development commitments, applicable to all its operations and projects.

Since 2011, the Company has an Ethics Code that defines key aspects, such as the steps to fall regarding environmental care and respect for culture, heritage and traditions of the communities near the mine.

In 2014, the Company started implementing the new Environmental Risk Management System that integrates the Environment and Community Structural Project results (2011-2013). Efforts focused on identifying and controlling the potential impact of environmental criteria by identifying the vulnerabilities, standard gaps, and the repetition of environmental incidents and claims, in addition to complying with Environmental Qualification Resolution requirements and with applicable regulations in general.

In order to run the system, IT platforms were implemented to manage environmental incidents and solid waste management at all divisions, generating valuable information to improve control of these key environmental issues. Furthermore, a platform was developed to monitor the management of critical environmental concerns and the commitments defined in the Environmental Qualification Resolutions.

Each Division has made progress with the implementation of environmental and community standards that address all key mining-related environmental management issues, from prevention and control of adverse effects caused by emissions, mass mining, solid waste and disposal, efficient management of critical resources such as water and electricity, and land, soil and landscape issues, biodiversity and mine closure. While community standards address specific criteria in order to contribute to community development and promote reliable and transparent relationships with the community, particularly respect for the original people in the area.

Environmental Indicators

Wastewater and Water Resources

Since 2012, Codelco has been applying a new Wastewater and Water Resources Standard, to ensure sustainable management related to territorial concerns, environmental and social impact.

Water recycling is an essential element of water management; in 2014, 70% of the Company's water was recycled. Chuquicamata and Radomiro Tomic divisions, located in the arid region of Antofagasta, recycled more than 80% of their water.

Codelco has 15 wastewater discharges that have monitoring plans. In 2014, 8 wastewater effluents had zero discharge due to process changes and/or recycling. All points where wastewater was discharged met the quality standards.



Smelter Emissions

Codelco has four copper concentrate smelters that mostly generate sulphur dioxide (SO₂), arsenic (As) and particulate matter emissions. These facilities are regulated by emission standards and by decontamination plans applicable to cities. All the smelters complied with emission limits and/or standards.



Project Environmental Assessment

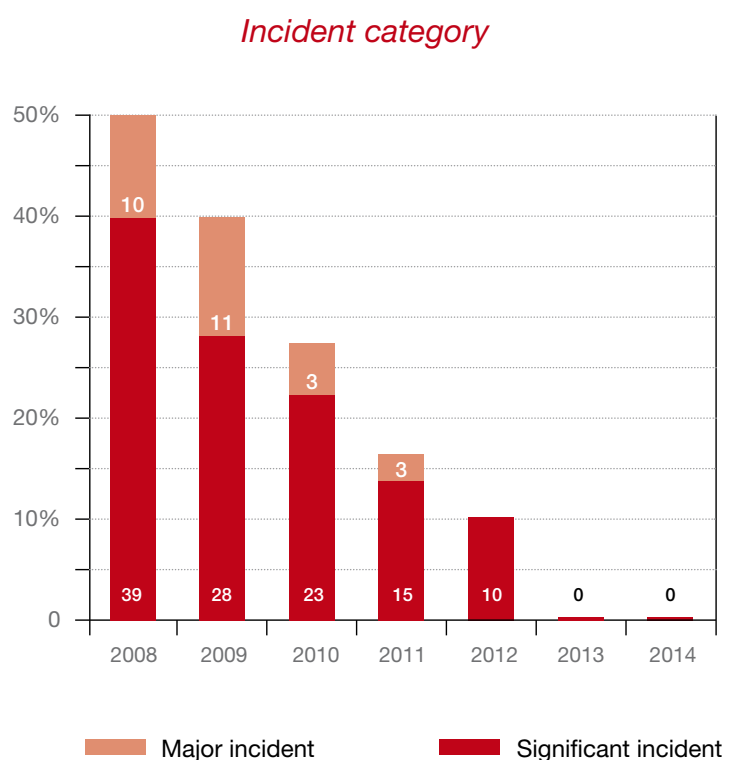
Codelco submitted 7 projects to the Environmental Impact Assessment System (SEIA). All the applications were Environmental Impact Statements; no Environmental Impact Studies were submitted (EIA).

Environmental Incidents

The 2013 Environmental Incident Management Standard, Corporate Standard 38, aims to analyse and learn to prevent environmental impacts, and to promote incident reporting in an online corporate platform.

This standard sets out four incident categories: minor, moderate, significant, and major incident. During this period, the divisions reported 92 minor environmental incidents and 2 moderate incidents, while Projects Vice-Presidency reported 14 minor environmental incidents. Therefore, there was a high number of environmental incidents reported.

In short, in 2014 there were no significant or major incidents, similar to 2012 that had 10 incidents. The Company expects to maintain this performance over the next few years as the environmental risk management system is consolidated.



Significant Events

Enforcement

Chile changed its approach to environmental issues over a year ago and as the new environmental agency is consolidated, Codelco has met its commitments and the agency's requirements.

The creation of the Superintendence of the Environment (enforcement and, sanctions), the environmental tribunals (jurisdictional control), in addition to existing public policies and regulatory functions (Ministry of the Environment) and project assessment (public services, environmental assessment service) originated a total of 11 environmental enforcements in Codelco at all its divisions and 5 additional information requirements.

In response to these environmental requirements, Codelco developed procedures, defined responsibilities and ensured on-going enforcement and control of all safety concerns applicable to the different areas overseen. Codelco did not have any serious or major sanctions and had few of non-conformities in the 2014 enforcement process.

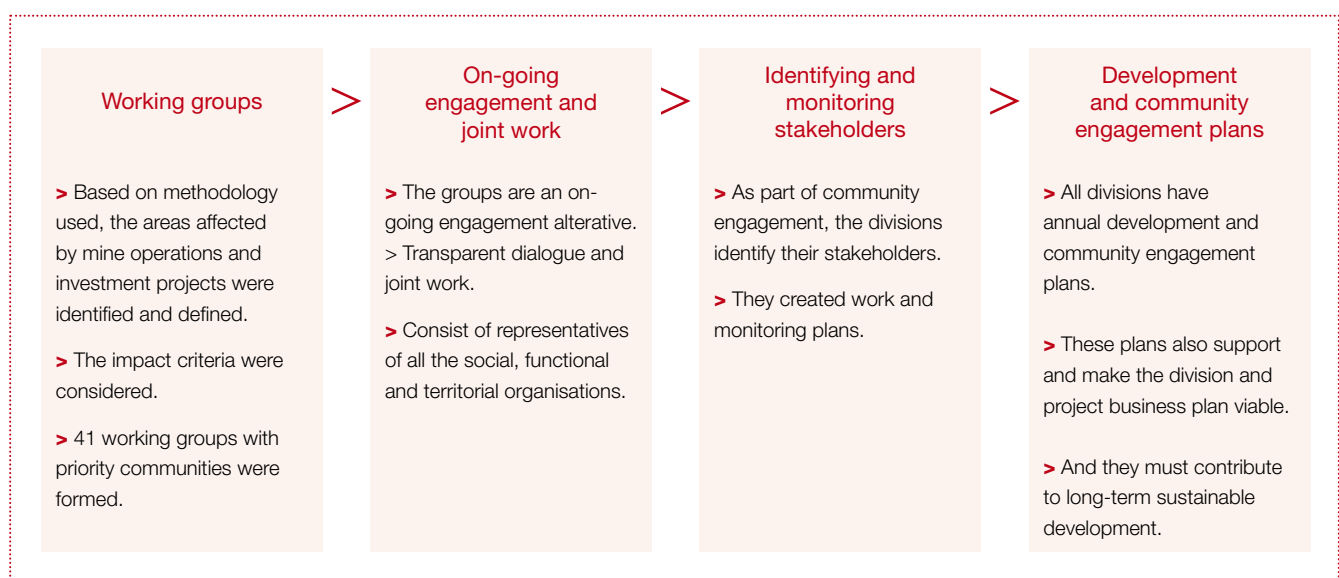
During the year, the Environmental Tribunal rejected a process that required entering the Environmental Impact Assessment Service; this process was started in 2013 by the Superintendence of the Environment.

Community Development

In 2014, the community development model, that defines how to engage and work with the local communities near mine operations and projects, was consolidated.

This model is based on Codelco's governance components, regulatory framework, community standards (relationships, community development and indigenous peoples), implementation guidelines and socio-environmental impact management. This structure has helped to systematise and to have feedback from communities to continuously improve management, essential to building long-term trust relationships, contributing to community development and to business sustainability.

Implementation of community standards



Data traceability

Community management is supported by two on-line IT platforms:

- > To monitor community investment and projects, working groups and commitments to communities.
- > To support stakeholder management, early warnings and monitoring of potential social-environmental conflicts and their action plans.



Community Investment

In 2014, community investment was \$ 2.57 billion; it was used to implement 154 cooperation agreements, in alliance with social organisations and public and private institutions near operations and investment projects. 95% of this investment went to critical locations within the impact area of divisions.

Cooperation agreements 2014

Division	Effective agreements	Investment 2014
Distrito Norte	58	\$ 1,259,815,211
Distrito Sur	96	\$ 1,309,908,665
Total	154	\$ 2,569,723,876

In 2014, a community investment standard was implemented (Corporate Standard 39) to develop the areas next to the Company and to focus community investment on priority communities. The standard defines three lines of action for the investment projects: socio-environmental impact on local area, human capital and indigenous peoples.

Codelco's standards also define criteria and regulate investments to ensure transparency and the appropriate use of resources.

Social Investment Fund

In 2014, Codelco's Social investment Fund financed five initiatives, totalling \$ 150 million pesos, as shown below:

Division	Project	Project Total	Amount paid by fund
Ministro Hales	Use clean energy to heat domestic water, by using thermo-solar systems at Tucnar Huasi.	\$ 40,650,000	\$ 28,455,000
Gabriela Mistral	Between Cabur and Claridad de Capin we cultivated Pata Hoire.	\$ 19,099,000	\$ 11,649,000
Salvador	Sustainable neighbourhood meetings at Chañaral.	\$ 46,896,000	\$ 29,896,000
Ventanas	Children's Orchestra Puchuncaví.	\$ 121,000,000	\$ 40,000,000
El Teniente	Participatory Community Monitoring Programme at Coya and Alhué.	\$ 57,142,860	\$ 40,000,000

SENCE Training

In 2014, Codelco used its SENCE surplus and provided development and training opportunities to local communities. A total \$ 2.507 billion was allocated to 212 training courses at its 8 divisions, benefiting approximately 4,700 people.

The training courses covered three lines of action: mining technical courses, community development tools and new uses of copper, distributed under three in-house programmes:

- **Veta minera:** 7 in-house mining training courses in alliance with the mining industry and Fundación Chile.
- **Programa Juntos:** 135 training courses for vulnerable groups in communities close to operations.
- **Agreement with contractors:** 47 third-party mining courses, signed in 2013.

The SENCE surplus was distributed for the above programmes through Technical Training Organisations (OTIC) specialised in this field, as provided by Law 19,518.

Channel open to Community

In 2014, Codelco continued running a Socio-Environmental Complaints and Suggestions System, a communication channel to duly answer concerns, problems and proposals raised by neighbours to get ahead or avoid certain contingencies or major conflicts. Its goal is to have an open and on-going monitoring system for local communities.

The system operates through a free telephone number 800 222 600, available 24 hours a day, and contact email: contactosocioenvironmental@codelco.cl.

During the year, 147 contacts were received through this channel, of which 21 were questions and general information, 44 were related to environmental concerns and 82 to social issues.

Community Projects

Codelco develops social investment initiatives and activities, and takes responsibility for the social impact caused by operations and projects on local communities. The primary goal of these projects is to contribute to local community wellbeing, strengthening skills and foster honest, transparent and mutually beneficial relationships. Key projects promoted in 2014 were:

Chuquicamata Division

Fondos Calama Participa 2014: 18 projects were awarded related to quality of life, the environment, education, heritage and identity.

Investment \$ 104,058,384 pesos.
Beneficiaries Más de 1.500 people.

Radomiro Tomic Division

Recovery of San Pedro River ecological flows: It defines a water discharge at two points in the natural course of the San Pedro River. At present, the Division delivers 20 litres per second. Its forms part of an environmental commitment of the Environmental Qualification Resolution and a quarterly report is submitted to environmental and sector authorities.

Investment \$ 235,500,000 pesos.
Beneficiaries All the community.
Directly, 60 people.

Ministro Hales Division

Per-urban park: Construction of the first stage of this project around the Tucnar Huasi settlement and it should be completed and opened to the community in 2015.

Investment \$ 2,883,897,354 pesos.
Beneficiaries 660 families.



Competitive funding: Together with the Municipality of Calama, 10 projects were defined with competitive funding. These projects aim to foster an active participation of civil society organisations and work with vulnerable groups or sectors.

Investment \$ 50,000,000 pesos.
Beneficiaries 500 people.



Gabriela Mistral Division

Digital literacy: In the district of Baquedano, a digital training course was offered, personalised and by level, to 26 neighbours and social leaders from the district. The project reduces the digital gap and provides tools to improve their work in the community.

Investment \$ 20,300,000 pesos.
Beneficiaries 26 neighbours and social leaders from Baquedano.

Salvador Division

Renewable energy: In alliance with the Chañaral Unión Comunal de Juntas de Vecinos (Neighbourhood Council Association), the Division developed a renewable energy project to install photovoltaic systems in 17 neighbourhood councils in the district.

Investment \$ 58,085,792 pesos.
Beneficiaries Directly 35 people and indirectly 1,700 people.

Andina Division

Former Los Andes train station: After it was refurbished in 2014, it became the location of Los Andes Children's Symphonic Orchestra Foundation and Pro Aconcagua. Student fairs, tourism entrepreneur meetings and concerts provided by the Los Andes Children's Symphonic Orchestra were also held in these premises.

Investment \$ 78,232,163 pesos.
Beneficiaries 120 children in the orchestra.
 30 people in the Corporación Pro Aconcagua and Los Andes Community.

Ventanas Division

Training courses: Successful integration of students into the world of work, through professional internships and training, apprentice programme, graduate programme, dual students, alternate education and other fields. Finally, the Division participates in the Business Advisory Council of the Don Orione School in Quintero and the Sargento Aldea School in Puchuncaví, which guide, manage and prepare students for the world of work.

Investment \$ 363,108,000 pesos.
Beneficiaries 617 young people and students from Puchuncaví and Quintero.

El Teniente Division

Participative monitoring in Alhué: Key community leaders participate in this initiative, which involves implementing a participative work method to monitor the water flow of the Carén and Alhué Stream.

Investment \$ 29,300,000 pesos.
Beneficiaries 25 trained neighbours.

Mejillones

In the context of the Molybdenum project and in compliance with the voluntary community commitments under the Environmental Qualification Resolution, 20 adults from the Mejillones district were certified as plant operators. A plan was also developed with the education complex Juan José Latorre to provide AutoCAD training for 6 teachers and 70 third and fourth-year students.

Investment \$ 10,000,000 pesos.
Beneficiaries 96 teenagers and adults.

Codelco Children's Symphonic Orchestra

Since 2007 Codelco has been developing children's symphonic orchestras at its different divisions.

Los Andes Children's Symphonic Orchestra foundation: Andina Division has been developing this project for over 7 years, and has benefited more than 500 children in the district of Los Andes and San Felipe.

Mejillones Children's Symphonic Orchestra: In alliance with the Municipality of Mejillones, Codelco has been developing this initiative since 2010. Since then, this initiative has benefited more than 150 children and teenagers in the district of Mejillones.

Calama Mi Sol: Since 2011 this project has been sponsored by Chuquicamata Division. The objective of the orchestra is to achieve social inclusion through music and also develop the skills and personal values of the 80 children who benefit from this programme, especially those from western district of Calama.

Diego de Almagro Children's Symphonic Orchestra: Promoted by Division Salvador in alliance with the Municipality of Diego de Almagro; music lesson commenced in 2013. The orchestra is formed by 60 schoolchildren between 7 and 14.

Til Til Children's Symphonic Orchestra: The orchestra, created in 2013, consists of 80 children from Huechún, Santa Matilde, Huertos Familiares and Til Til centre.

During 2014 these initiatives multiplied:

San Pedro de Atacama, a music oasis: This project aims to develop the musical talent of 50 children from Atacama who are members of the San Pedro de Atacama chamber orchestra. Its main goal is to provide a high-level intellectual, social and musical development opportunity to these children, and because they live in such a remote geographical area, do not have access to this kind of programme or school.

Ventanas Children's Symphonic Orchestra project: During the year, more than 40 children were selected from different schools in the district of Puchuncaví; they will soon start taking lessons at the La Greda school in the same district.

Calama Plus

The Calama PLUS plan includes projects in different areas, such as infrastructure and urban development, oasis protection and expansion, value of local heritage, strengthening education and promoting a sustainable society, in a public-private collaborative work scheme, which implies a 14-year implementation period, from 2012 to 2025.

In 2014, technical working groups were created and work continued on key projects to transform Calama. Community management was consolidated through direct and continuous communication with key leaders to report project status and promote participation in various activities to develop the city.

Indigenous People

Based on the new indigenous people standard, the northern divisions have created participatory and associative community projects. This approach focuses on the development and needs of the indigenous communities, particularly in Alto El Loa.

Indigenous survey: While the Environmental Impact Study application for the Radomiro Tomic Sulphide project was under review, the Radomiro Tomic Division, Projects Vice Presidency and the Head Office led the indigenous survey process. This process, included in applicable regulations, is conducted by the Environmental Assessment Service in Lasana and Chiu-Chiu.

Ministro Hales Division

Indigenous social investment fund: In order to rescue cultural heritage and improve living conditions of inhabitants; 19 projects were implemented in different indigenous communities such as Coska, Toconce and Lasana.

Investment \$ 50,000,000 pesos.
Beneficiaries 290 people.

Chuquicamata Division

Cupo community: Work plan to rescue and improve roofing, build new houses and improve the community church.

Investment \$ 50,000,000 pesos.
Beneficiaries 40 people from Cupo community.

Gabriela Mistral Division

Between Cabur and Claridad del Capin, we cultivated Pata Hoiri: A joint initiative with the Atacameña indigenous community in Río Grande to develop sustainable farming initiatives in the Hierbas Buenas area, incorporating irrigation technology and technical assistance to grow emerging crops.

Investment \$ 19,099,000 pesos.
Beneficiaries 30 families from Río Grande.