Sustainability Report

2016



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Chief Executive's **Statement**

G4-1



I am pleased to present this second report of Empresas Copec, which offers a vision based on the challenges of a sustainable business of our activities in 2016 in the environmental, social and governance areas. This report expresses our conviction that it is possible to generate economic results for our shareholders and in turn incremental value for our employees, communities, customers and consumers, and for industries and countries.

In a complex and changing global scenario, the role of private companies has challenges of a diverse scale.

Doing business today is working with dedication to attain the point of balance that enables the company to carry on growing with a sustainable model that can add benefits for all those who are part of the productive and commercial chain. It is having Corporate Governance with sound structures, transparent and ethical. It is embracing some of the main social challenges that countries face on their paths to development. It is preserving the environmental capital and constantly innovating to find new and more efficient solutions. It is valuing our human teams and keeping their enthusiasm and commitment alive. All this, guaranteeing steady economic development, which is an intrinsic and unwavering component of any company in the world.

We have drawn up this report according to the guidelines of the Global Reporting Initiative (GRI), an international benchmark for sustainability reporting. Its development has required great efforts to gather, consolidate and systemize the experience of all our subsidiaries in 2016. I greatly appreciate the valuable work undertaken by our teams for this objective.

I would like to highlight the incorporation of the economic value generated and distributed concept in this year's report.

This indicator is particularly important for quantifying the contribution of Empresas Copec to the different counterparts and to the economies of the countries in which it operates.

Regarding business, 2016 was a year of major milestones for Empresas Copec.

In Chile, we continue to enhance our productive platform and work to drive the growth of our subsidiaries. The company made various investments overseas, which it studied for a long time and which will greatly enhance our internationalization process.

Our forestry subsidiary, Arauco, acquired 50% of the capital of the Spanish company Tafisa, which has facilities in Spain, Portugal, Germany and South Africa, in an operation amounting to USS 150 million. For the first time, Arauco has thereby extended its productive platform outside the American continent. The company also started to build a new medium density particleboard (MDP) mill at Grayling in the state of Michigan, United States. Both operations consolidate Arauco as the second largest wood board producer worldwide.

Copec ventured into the US market by acquiring MAPCO for USS 535 million, a network of service stations and convenience stores that operate in seven states in the United States. This is evidence of the success and the potential of a service model created in Chile and which is now being applied in one of the most competitive economies in the world.

By late 2016, Copec also signed an agreement with the multinational ExxonMobil to produce and distribute Mobil-branded lubricants in Colombia, Ecuador and Peru, among other operations in those same countries. After closing this agreement, Copec will have a sound structural platform to attain leadership of the lubricant business on the Pacific Coast through its subsidiary Terpel. The investment in this regional agreement was USS 747 million.

We have also put in place thorough training programs, anticorruption policies and various initiatives to bolster the commitment to the principles of antitrust, which guarantee the right business development.

Abastible, which since 2011 has had a productive and commercial presence in Colombia through Inversiones del Nordeste, entered

new markets after reaching an agreement with Repsol to acquire its liquefied petroleum gas (LPG) operations in Peru and Ecuador for US\$ 335 million. This enabled the company to triple its LPG sales volume, making it the largest distributor in Andean countries and third largest in the region.

These expansion and productive enhancement processes go hand in hand with our responsibilities for the environment. The continuous improvement of our corporate governance practices becomes an imperative.

Hence, in 2016 Empresas Copec implemented its risk management methodology, which considers an annual audit program aimed at reducing our company's exposure to strategic, environmental and process risks. We have also put in place thorough training programs, anticorruption policies and various initiatives to bolster the commitment to the principles of antitrust, which guarantee the right business development.

We believe this progress has been the basis for being elected to be listed on the Dow Jones Sustainability Index and the FTSE4Good Index, two of the leading global indexes on sustainability and responsible investment. These achievements are grounds for pride and at the same time are an incentive not to give up on our purpose. We are committed to ongoing improvement to do business which is now renowned and valued, not only in Chile but also in each country in which we operate.

In regard to innovation, we undertake this as a critical variable for sustainable development, a driving force that

can transform productive and commercial tasks and inject power and speed to the development of countries.

That is why an innovative spirit is the basis of the business philosophy of all our subsidiaries and why for natural resource and energy companies innovation is an infinite source of solutions that facilitate the compatibility of growth with care and preservation of resources.

Concerning environmental care, in 2016 the company continued to make progress with emission and energy consumption reports. This is a task which is and will be in permanent evolution, at the same time generating knowledge and technological changes.

In the environmental area, we cannot omit to mention the reverses of nature, which is a characteristic so inherent to Chile. An example of this are the wildfires that hit the center and south of Chile in January and February 2017, with major social and environmental impacts. In the case of Arauco, besides the human repercussions of these events, part of its forest wealth of about 80,000 hectares of plantations was hit, along with the El Cruce sawmill in the town of Santa Olga in the Maule region. To collaborate with controlling the emergency, our forestry subsidiary provided around 1,300 firefighters, 8 planes, 10 helicopters and over 100 vehicles to transport water and heavy-duty machinery to make firewalls.

Regarding communities, the company has continued to undertake enriching work of generating value for our host communities, by means of initiatives like the Worker Housing Plan, the Sustainable Reconstruction Plan (PRES) in Constitución and promotion of the Itata river valley of Arauco; the Lebu Fish initiative of Orizon; or Terpel's "Restoring Dreams" program, among others.

We would particularly like to highlight the corporate work on education in Chile – one of the most deeply rooted commitments in our organization –, which is carried out through the Arauco Campus, the Arauco Educational Foundation and the participation of Empresas Copec in Enseña Chile and the Belén Educa Foundation.

Empresas Copec, along with its subsidiaries Arauco, Abastible, Copec, Terpel and Orizon, currently has over 20,315 employees, of whom 19% are women. Moreover, 23,440 people provide services through contractor companies.

Due to this, an essential element of our business model is to enhance the human capital, a key factor in the adaptability needed to operate in complex and increasingly more demanding environments.

In 2016, there were 476,000 hours of training so our employees can enhance their skills and gain new competencies to perform their work. This training effort is combined with the performance evaluation processes, which has now attained 56% of the employees at consolidated level. This allows the company to have objective information about individual performance, and such information is of great value to empower and make a contribution to the best performance of teams.

This is part of the sustainability performance of Empresas Copec and its subsidiaries in 2016, which has entailed achievements and learning and which we are sure will help us to address better the challenges we have ahead. We are always convinced that we must take advantage of each opportunity to improve our performance and endorse the commitment to the different players who, inside and outside the organization, are key to a forward-looking and sustainable business management.

In the changing global scenarios in which companies operate, strictly adhering to the sustainability principles is a guarantee of long-term growth. Such principles are the basis of the decision-making of Empresas Copec and its subsidiaries.

The commitment to sustainability is what has enabled the company to undertake business activities for over eight decades, to successfully disseminate a way of doing business to diverse geographies in the world and to plan future development in which value is, of course, shared.

Eduardo Navarro Chief Executive Officer Empresas Copec



G4-6

Empresas Copec is one of the leading corporations in Chile and operates in two large business areas: natural resources and energy, which are closely related to growth and productive development.

The company is present in the forestry business through its subsidiary Arauco, one of the largest forestry companies in the world. It also operates in the distribution of liquid fuels, lubricants and liquefied gas through its subsidiaries Copec, Abastible and Sonacol and its associate Metrogas. Empresas Copec also operates in the fisheries business through its subsidiary Igemar, which is present in the northern, central and southern areas of the country, producing fishmeal and fish oil, canned and frozen fish and Omega-3 concentrates, and it is also a key player in the animal and vegetable protein industry.

Moreover, it operates in the metal mining industry through Alxar Minería, in the coal mining industry through Mina Invierno, and in the real estate business through Inmobiliaria Las Salinas.

In each of these areas, the company drives major investment programs to raise the scale of its operations, expand its borders, leverage synergies and assure the sustainability of its activities.

Empresas Copec has important production platforms in Chile, Germany, Argentina, Brazil, Canada, Colombia, Ecuador, Spain, United States, Mexico, Panama, Peru, Portugal, the Dominican Republic, South Africa, and Uruguay, and it markets its products in over 80 countries on all five continents.

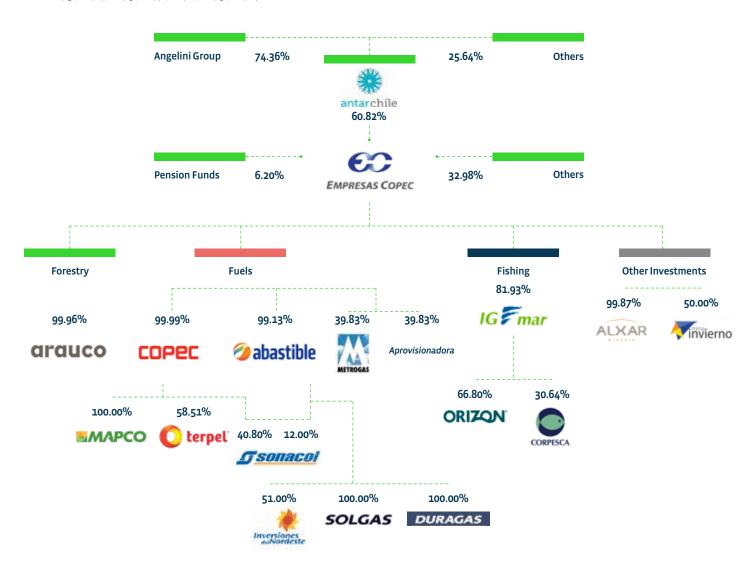


Production Platforms

- **♣** Forestry
- Fuels
- Fishing and other investments
- Arauco's Comercial OfficesArauco's Agents

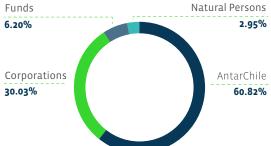
2.1 Description of Empresas Copec and its Subsidiaries /

G4-3/G4-4/G4-5/G4-7/G4-8/G4-9/G4-17





Ownership Structure *December* 31, 2016



For the year ended December 31, 2016, Empresas Copec was controlled by the publicly traded corporation AntarChile, which owns 60.82080% of the stock of the company.

2.1.1. Subsidiaries /



ARAUCO

Arauco is one of Latin America's leading forestry companies in terms of the surface area and yield of its plantations, production of wood pulp, timber and panels, besides being an increasingly more important player in the energy generation sector.

The company offers a wide range of sustainable and quality products for the paper, construction, packaging and furniture industry in order to help improve people's lives.

Products are marketed on all five continents through representatives and sales agents. It also has commercial

offices in 11 countries and an efficient logistics and distribution chain, which in 2016 enabled its products to be delivered through 230 ports, reaching more than 4,300 customers.

Besides being a global company, it applies the highest forest stewardship and responsible management standards at its operations, seeking to be different through innovation and added value generation.

Empresas Copec has a 99.98% ownership stake of Arauco.

+1.7 million

hectares in Chile, Argentina, Uruguay and Brazil **7** wood pulp mills

with a production capacity of 3.9 million tons a year

10 sawmills

that produce 3.0 million m³ of timber a year **27** panel mills

with a total production capacity of 8.9 million m³ a year 11

biomass-fired power generating plants with a total installed capacity of 849 MW



COPEC

Compañía de Petróleos de Chile markets and distributes lubricants and fuels in Chile. It also operates in Colombia, Ecuador, Panama, Peru, Mexico and the Dominican Republic through its subsidiary Terpel. In each of the countries it has an extensive network of service stations, which complement fuel sales with lubrication, car washing and food

services. It has a market share in Chile of over 58% for fuels and 46% for lubricants.

Empresas Copec has a 100.00% ownership stake of Copec.

Through Copec, Empresas Copec owns 58.51% of Terpel.

634 service stations

/ in Chile and 2,217 in Colombia, Ecuador, Panama, Peru and Mexico **91** Pronto stores

in Chile and 32 altoque stores

248Punto stores

in Chile and 16 deuna kiosks in Colombia **19** fuel storage plants

in Chile with a total capacity of 543,000 m³ and 30 plants in the other countries +9.8 million m³

of sales in Chile and 9.2 million m³ in the other countries



ABASTIBLE

Abastible distributes bottled and bulk liquefied gas in Chile for residential, commercial and industrial use. It also supplies liquefied gas to taxis and company fleets through the Autogas gas stations, and supplies liquefied gas to ships and offers solar thermal energy solutions. This entails installing solar panels in homes, commerce and industries that enable the combined use of liquefied gas and solar energy to heat domestic water. In the Biobío region, it has a maritime terminal, which provides clean fuel wharfage services, and a liquefied

gas storage plant with a capacity of 40,000 m³. In Colombia, it owns five regional companies that distribute and market liquefied gas. Moreover, as of 2016 Abastible is the owner of the Peruvian companies Repsol Gas del Perú S.A. and Repsol Gas de la Amazonía S.A.C., and the Ecuadorian companies Duragas S.A. and Servicio de Mantenimiento y Personal S.A.

Empresas Copec has a 99.13% ownership stake of Abastible.

10

storage and bottling

6.6 million

57,000

/ tanks at customer homes 23

sales and distribution offices

1,300

/ distributors



ORIZON

Orizon produces products for human and animal consumption, such as fishmeal and fish oil, canned and frozen fish, which are marketed under the San José, Colorado, Lenga, Orizon, Atlas and Wirembo brands. Furthermore, the company markets canned tuna, rice and legumes under the San José brand.

Fishmeal, fish oil and canned fish are mostly sold in the domestic market, whereas frozen fish are mainly marketed in Spain, Peru, the United Kingdom, Japan, Russia and Chile.

3

fishmeal and fish oil plants, two in the Biobío region and one in the Coquimbo region

1

frozen fish plant in Coronel with a production capacity of 600 tons of fish a day **290** tons

of raw material per hour in production capacity

1

canned fish and individual quick freezing (IQF) plant in Puerto Montt with a production capacity of 60 tons of mussels a day 1

canned fish plant in Coronel that can process 30,000 cases each with 24 cans of jack mackerel a day

1

frozen fish plant in Coquimbo with a processing capacity of 60 tons of fish a day

8 ships

with a total hold capacity of 11,000 m³ compound the operative fleet **390** hectares

of operative concessions in the Los Lagos region to farm mussels, with a production capacity of about 22,000 tons a year

2.2 Mission and Vision /

MISSION

Empresas Copec is a world-class company, which seeks to provide an attractive long-term return for its investors and contribute to the development of Chile and of the countries where it undertakes its productive and commercial operations.

To achieve this, it mainly invests in energy and natural resources, and generally business areas where it can create sustainable value. While undertaking its operations, it strives to be a good citizen and look after and honor the interests of shareholders, employees, partners, suppliers, customers, communities and all the parties with whom it is in some way involved.

Empresas Copec performs its productive and commercial operations with excellence, and all its decisions are carried out according to the highest ethical and transparency standards.

VISION

- **Contribute** to society by generating the greatest value possible, which sustainably benefits shareholders, employees, suppliers, customers and the communities around its operations, by means of efficient, responsible, innovative and quality management in all its processes.
- Promote the sustainable use of the natural and energy resources of the environment, investing in research, technology innovation and training to gradually, continually and systematically prevent and reduce the environmental footprint of its activities, products and services.
- **Provide** to all customers quality products continually over time, motivating its suppliers to participate in its value and quality chain.
- **Safeguard** safety and occupational health, striving to continually and steadily reduce the safety risks of its operations and services.



- **Create** conditions for the development of all the people who belong to the company, promoting a workplace of respect, honesty, professional quality, training and teamwork.
- Forge permanent relations of mutual collaboration with the communities around its operations, supporting their development.
- **Maintain** transparent and honest communication with the different major players for the company.
- **Comply** with the regulations in force, contractual obligations and other commitments regulating its business and, whenever possible, exceed the standards established.
- **Have** and apply systems and procedures to manage the business risks, regularly assessing performance in all the processes and adopting the timely corrective action needed.
- **Disseminate** these commitments to its employees, contractors and suppliers, getting this policy implemented with everybody's collaboration and effort.
- Work with dedication, correctly, honestly and with excellence, and to be true to the values and policies of Empresas Copec.





2.3 Sustainability **Approach** /

G4-24 / G4-25 / G4-26 / G4-27

The corporate sustainability policy of Empresas Copec endorses the ongoing commitment of the company and its subsidiaries to responsible and sustainable business management. Such policy sets out the principles and general guidelines on undertaking activities in accordance with the highest sustainability standards. It also establishes the role and responsibilities of the Board of Directors, corporate management, employees, consultants and contractors to comply with the policy.

The Board of Directors of Empresas Copec is responsible for assuring compliance with this policy and following up on the main group-wide sustainability initiatives. The Boards of Directors of subsidiaries are responsible for ensuring that their respective companies comply with the policy.

SUSTAINABILITY POLICY GUIDELINES

Transparency

Integrity

Continuous Improvement Value Creation and Protection

Precaution and Prevention

Protection and Conservation

¹The Board of Directors approved the sustainability policy in a Board meeting held in December 2015, and it is available on the corporate website at: http://www.empresascopec.cl/wp-content/uploads/2016/02/Sustainability-Policy.pdf

The company's subsidiaries addresses the main sustainability challenges, according to the nature of each one of its businesses, making sure that decision-making processes consider the interests of all the stakeholders.

Stakeholders	Guidelines	Form of Engagement
Shareholders	Ensure long-term value creation for shareholders. Keep shareholders informed about the different risks that may affect the company.	Corporate website Investor website Share department Mobile app Institutional magazine Email/telephone Investor Relations area
Investors and financial analysts	Forge sound relations with current and potential investors, with the aim of helping them to get to know the company and promoting transparency. Keep investors informed about the progress of business, investments and projects, besides the different risks that may affect the company.	Corporate website Investor website Mobile app Conference call Email/telephone Presentation of results Press release National and international conferences Meetings Investor Relations area
Employees	Prevent work accidents and occupational diseases. Foster a work environment of respect, honesty, professional quality and teamwork. Safeguard the human development of all the company's members, fostering diversity, collaboration and ongoing training on sustainability. Comply with the legal regulations on freedom of association.	Corporate website Institutional magazine Code of Ethics Internal regulation Other corporate documents Whistleblowing hotline
Customers	Contribute to the development of operations that enable customers to achieve their own sustainability goals. Provide customers with a responsible and sustainable product and/or service offering. Strive to deliver innovative and quality products and services that meet customer needs and expectations.	Corporate website
Host communities	Develop company activities in harmony with the social and environmental surroundings. Prevent and mitigate the possible negative impacts caused by the company's activities. Implement community engagement programs and projects that create value in the areas where the company undertakes its activities.	Corporate website Institutional magazine Email/telephone
Suppliers and contractors	Safeguard the timely payment of fair prices. Maintain a strictly independent relationship, always giving priority to factors of profit, quality, opportunity and budget that are in the company's best interests.	Corporate website Institutional magazine Email/telephone
Society	Contribute to the development of society by means of responsible, permanent and mutually collaborative relations in areas such as education, innovation, housing and sports.	Corporate website Institutional magazine Annual Report

2.4 Main **Accolades /**

G4-15/G4-16

- **Roberto Angelini** is voted Best Businessman 2016 by readers of *Diario Financiero*. Empresas Copec is awarded first place in the International Expansion category.
- **Eduardo Navarro, CEO of Empresas Copec,** is distinguished as the "Executive of the Year" by the consultant EY and *EI Mercurio* newspaper.
- **Arauco** is awarded first place in the "Most Innovative Companies Chile 2016" ranking, which is compiled annually by the ESE Business School of Universidad de Los Andes and *La Tercera* newspaper.
- **Abastible** is awarded "First Place in Chile" and "Best in the Industry" in the Consumer Loyalty 2016 Award, organized by Alco Consultores. For the fourth time running, the company was N°1 in the gas industry.
- **Copec** gains first place in the "Service Station" category of the National Consumer Satisfaction Awards of the ProCalidad ranking.
- **Terpel** is recognized as one of the 20 companies with the best corporate reputation, according to the Merco Empresas and Líderes Colombia 2016 ranking.



- **Abastible** is awarded first place in the PXI Praxis Xperience Index 2016 ranking of the liquefied gas industry, and is runner-up nationwide.
- Arauco is distinguished as one of the country's most innovative export companies in the innovative behavior category by the Innovation Observatory of the Business Administration Department of the Faculty of Business and Economy of Universidad de Chile and the Unegocios Management Development Center.
- **Terpel** receives the Investor Relations award of the Colombian Stock Market for providing legal, financial and commercial information transparently, timely and truthfully.
- **Copec** receives RepTrack's Brand Reputation Award.
- **Terpel** secures innovation good practice certification from Icontec and the Chamber of Commerce of Bogotá.
- **Terpel's** *deuna* **kiosks** are awarded the Steel Pen Award for the best design in promoting products at sales points.







3.1 Corporate **Governance**² /

 $G_{4-34}/G_{4-35}/G_{4-36}/G_{4-37}/G_{4-38}/G_{4-39}/G_{4-40}/G_{4-42}/G_{4-43}/G_{4-44}/G_{4-45}/G_{4-48}/G_{4-49}/G_{4-50}/G_{4-51}/G_{4-52}/G$

3.1.1 CORPORATE GOVERNANCE PRINCIPLES

The most important principles governing the performance and operation of the Corporate Governance of Empresas Copec are outlined below.

- **Promotion of transparent,** consistent and efficient markets that are in accordance with the rule of law;
- **Correct assignment** and monitoring of responsibilities among the different authorities;
- **Protection of shareholders' rights** to facilitate their exercise and ensure fair treatment;

- Permanent promotion of strategic advisory services;
- **Constant concern** for management to be effectively monitored by the Board, and for the latter to represent all shareholders.

These principles are the basis of the company's management and are applied at each of its subsidiaries, transversally reflecting the concern of creating sustainable value, undertaking thought out and informed decision-making with a long-term vision, and the permanent commitment to social, human and economic development.

3.1.2 BOARD OF DIRECTORS

The Board of Directors is the main Corporate Governance structure organ of Empresas Copec. It comprises nine members, who do not hold executive positions in the company and who are elected for three years. The current members were elected in an Ordinary Shareholders' Meeting held in April 2016 and will remain in office until the Ordinary Shareholders' Meeting in 2019. Each member has an outstanding career track record with a professional and ethical level, giving the organization a complementary and independent vision.

Directors convene monthly to define and assess the company's overall strategy, and steer it towards meeting the economic, social and environmental objectives. They oversee the company's senior management and monitor key operational and financial decisions. The Board is also in charge of analyzing the large investment projects and assuring effective and efficient risk management.

² For further information on the Corporate Governance of Empresas Copec and its role, please consult the Annual Report 2016, pp. 37-39.

BOARD OF DIRECTORS



ROBERTO ANGELINI Chairman Industrial Civil Engineer 5.625.652-0



JORGE ANDUEZA Vice Chairman Civil Engineer 5.038.906-5



MANUEL **BEZANILLA** Director Attorney 4.775.030-K



ANDRÉS BIANCHI Director Economist 3.367.092-3



GABRIEL BITRÁN Independent Director Industrial Civil Engineer 7.033.711-8



JUAN **EDGARDO GOLDENBERG** Director Attorney 6.926.134-5



ARNALDO GORZIGLIA Director Attorney 3.647.846-2



CARLOS HURTADO Director Business Engineer 2.300.859-9



TOMÁS MÜLLER Director Business Engineer 4.465.942-5

Its operating regulations are embodied in the "Corporate Governance Procedures" compendium available on the corporate website³. Among other practices, it establishes the commitment of training directors in accordance with an annual program which in 2016 was focused on the following issues: best corporate governance practices; risk management; conflicts of interest; corporate governance sustainability; duties of diligence, care, loyalty, right to information and confidentiality affecting directors; roles and responsibilities of the board; possible legal risks related to the use of information technology; free competition; along with risk management and compliance.

The same compendium sets out the procedures for applying to be a director and their induction and the steps to be followed for hiring external consultants.

With the aim of assuring the continuous improvement of its operation, the Board implemented a self-evaluation procedure of its own performance, based on undertaking questionnaires on good practice, with the advisory services of an external consultant. Each director is evaluated individually, with the answers given privately and confidentially. The main issues evaluated during the course of 2015 were the operation of the Board, the internal control systems and ethical behavior.

Board member fees are defined and approved each year in the Ordinary Shareholders' Meeting, as laid down in Chilean legislation. In 2016, such fees amounted to UF 300 a month for directors, UF 600 for the Vice Chairman and UF 900 for the Chairman. The annual report of Empresas Copec provides a breakdown of the fees, and there are no incentive plans such as bonuses, payments in shares, stock options or others.

3.1.3 BOARD COMMITTEES AND SUPPORT AREAS

The Corporate Governance of Empresas Copec also comprises a set of Board committees and support units:

Organ	Description		
Directors' Committee	It convened six times in the year to analyze strategic issues, examine the reports submitted by the independent auditors and the financial statements, and assess the senior management remuneration systems, and operations with related parties. In 2016, the monthly remuneration paid amounted to UF 100 for each of the members and the committee's total budget was UF 5,000.		
Ethics Committee	This comprises a Director, the CEO and Legal Advisor. Its main aim is to give advice on ethical issues and define, promote and regulate the correct conduct of employees, ensuring that it is in keeping with the company's principles, particularly in the Code of Ethics. It is also responsible for analyzing the most significant whistleblowing reports and the application of penalties if applicable. The Committee convenes once a year, unless there is a whistleblowing report.		
Information Security Committee	The Information Security Committee has three members, elected by the CEO. It meets quarterly with the aim of implementing the policies, regulations and procedures established in the Information Security Model and ensure compliance. In 2016, it focused on assurance the confidentiality, integrity and continuity of the information.		

³ http://www.empresascopec.cl/wp-content/uploads/2016/02/Corporate-Governance-Procedures1.pdf

Organ	Description		
Head of Prevention	He is responsible for developing and communicating the procedures for preventing undesired conduct, training people on the scope of the Offense Prevention Model, and managing the whistleblowing hotline. He reports to the Board twice a year.		
Internal Audit Area	This unit is in charge of assessing the company's internal control system and giving the Board security on the degree of compliance with the policies, regulations, standards, legal provisions or other legal requirements of such system. The Board convenes twice a year with the person in charge of the internal audit area to review the audit program and the results of reviews.		
Risk Management Area	An external company belonging to the same business group is in charge of the risk management, and it reports the results of its reviews to the Board.		

3.1.4 BOARD OF DIRECTORS AND SUSTAINABILITY

As established in the Sustainability Policy of Empresas Copec, the Board is in charge of approving such policy and keeping it updated, validating the management procedures on the

company's sustainable management model and monitoring the right implementation of the sustainability requirements of local and international regulations.

3.1.5 SENIOR MANAGEMENT

The Board is also in charge of appointing the company CEO, who heads a group of professional officers who address achievement of the strategic objectives. The CEO of Empresas Copec and his executive team present the results of their

management to the Board each month, allowing for follow-up on the company's strategic indicators on economic, social and environmental issues, and to take the necessary action to achieve the annual targets.

SENIOR MANAGEMENT







EDUARDO NAVARRO *Chief Executive Officer*Commercial engineer
10.365.719-9

JOSÉ TOMÁS GUZMÁN Corporate counsel and secretary to the Board Attorney 6.228.614-8

RODRIGO HUIDOBRO Chief Financial Officer Industrial civil engineer 10.181.179-4



JORGE FERRANDO Corporate Research Manager Industrial civil engineer 12.059.564-4



CRISTIÁN PALACIOS

Director of Investor Relations
and Investments

Commercial engineer
13.234.980-0



PAMELA HARRIS *Head of Corporate Affairs*Industrial civil engineer
14.119.104-7

The procedure for replacing the CEO and senior management is also regulated. Likewise, the guidelines and policy on compensation, severance and incentives for senior management are established in the Corporate Governance procedure compendium.

The CEO's remuneration is defined by the Chairman of the company, who once a year assesses the fixed remuneration and defines the variable remuneration. This evaluation considers market factors, financial performance, team leadership, achievement of targets, conflict solving, M&A, among others. The variable remuneration is voluntary and is determined based on the aspects already mentioned.

Once a year, the CEO submits to the Directors'
Committee the fixed remuneration of all the senior
managers and their variations compared to the previous
year. Likewise, the CEO presents the Committee a
summary table indicating the percentile each manager

is in according to their total remuneration. It should be indicated that the remunerations of all the senior managers are also reviewed considering the market benchmark and individual performance.

It is important to state that as Empresas Copec is a financial holding it has no direct commercial and productive operations, so the environmental or safety and occupational health indicators are not taken into consideration, as they are not the most important for the nature of the business.

Moreover, it is company policy that the variable remuneration of senior managers should not exceed 50% of their total remuneration.

The remunerations and bonuses received by the company's senior managers in 2016 amounted to ThUSS 2,289 (ThUSS 2,234 in 2015), who on average received variable remunerations of 32.3% of these.

3.1.6 CORPORATE GOVERNANCE AT SUBSIDIARIES

The same principles of Corporate Governance that govern the operation of Empresas Copec's Board apply to its subsidiaries. 2016 was a major milestone for this with the creation of the Corporate Governance Committee, which convenes quarterly and brings together the representatives of all the companies of the Group (controller, parent company and subsidiaries) to share good practice and implement policies and procedures common to the companies. The main issues addressed by this committee in 2016 were free competition practices.

The policies and procedures of Empresas Copec on corporate governance are approved by the Board and transmitted to the CEOs of subsidiaries for their knowledge and subsequent implementation, and the respective Boards ensure they are effectively complied with within each subsidiary. This was the case of the policies on free competition, the offense prevention model and director assessment procedure, which arose as an initiative of the parent company.

3.2 Ethical Management and Regulatory Compliance /

G4-56 / G4-57 / G4-58

In 2015, the Board of Empresas Copec updated the Code of Ethics - Principles and Values, which establishes the principles and policies that guide the conduct of every employee in the company, as well as guidelines for acting in specific situations. This document is given to every employee when they are hired and is available in English and Spanish on the corporate website. In 2016, the company made a series of modifications to the document to clarify the company's position on child labor and freedom of association, and include the offense of receipt of stolen goods.

Compliance with the Code of Ethics is mandatory for everyone who works at Empresas Copec, including the Board of Directors. Another component of the ethical management system is the confidential and anonymous whistleblowing hotline, which enables anyone with information on an act or fact entailing breach of the current regulation or which fails to comply with the principles established in the Code of Ethics to report this directly to the most senior level of the company. The hotline was designed so it assures the anonymity of the whistleblower and also allows such person to conduct an online follow-up of the status of the report.

The ethical management model has been repeated in all of the subsidiaries of the group. Each of them therefore has a guiding document on ethical conduct approved by their respective Boards and a whistleblowing hotline.

Complying with current Chilean legislation, the company implemented offense prevention models at all the companies of the group, i.e., systems that safeguard the occurrence of offenses of asset laundering, financing of terrorism, bribery or receipt of stolen goods within the organization. The models comprise an offense prevention policy, an organizational structure that provides support, control procedures and a whistleblowing hotline, which in the case of Empresas Copec matches the mechanism of the ethical management system.

One of the most important advances in this area in 2016 was the implementation of this model at forestry companies established overseas, considering the different current local regulations.

All these models were recertified in 2016.

Company	Code of Ethics	Whistleblowing Hotline	Offense Prevention Model	Ethics Committee
Empresas Copec	√	✓	√	√
Arauco	√	✓	✓	✓
Сорес	√	✓	✓	✓
Terpel	✓	✓	✓	√
Abastible	√	✓	√	√
Orizon	✓	✓	✓	✓

3.2.1 FREE COMPETITION AND REGULATORY COMPLIANCE

G4-41/G4-S03/G4-S04/G4-S05/G4-S06

Empresas Copec promotes and honors free competition. This is a fundamental value governing each and all of the operational management areas. It is a corporate conviction that competition stimulates efficiency and creativity, establishing fair relations with customers, suppliers and even competitors. To enhance these concepts already outlined in the Code of Ethics, in July 2016 the Board of Empresas Copec approved the general policy on free competition. This establishes that principles and standards of free competition must be rigorously followed and safeguarded by all members of the company, be they directors, senior managers or employees.

The company also recommends that each of its subsidiaries has a rigorous policy on free competition that is duly updated, in line with the principles set out in the corporate policy of the parent company and a periodic training policy for senior managers and employees on due compliance with this policy.

A clear demonstration that these practices are non-negotiable values for Empresas Copec was the fact that before the modification of the Law on Free Competition (August 2016) it made changes to the composition of the Boards of subsidiaries to prevent horizontal interlocking or "simultaneous participation of one person in senior management positions or of a director in two or more companies that compete against each other".

Another of the practices implemented by the parent company and each of its subsidiaries in 2016 was employee training and update on free competition, anti-corruption, offense prevention and compliance with ethical standards. Besides the information campaigns developed, there were also training workshops that reached 24% of the total employees of the group, highlighting the effort made by Copec which trained all its personnel.

Although **Arauco's Free Competition Principles and Regulations Compliance Program** was approved in 2013, in 2016 it implemented the mitigation measures, gave specific training on regulatory changes and conducted the first selective audits on this issue. It also extended the scope of the program to operations in North America, Argentina and Brazil.

Orizon approved its own Free Competition Policy in 2016 and has a budget in 2017 to put a compliance program in place in this area, which includes drawing up a specific manual that provides greater clarity about the conduct expected in this area and the procedures to be followed to comply with the policy. This manual will be complemented with training sessions and awareness building aimed at all the company's personnel, along with specific audits of operating processes and systems.

PERCENTAGE OF EMPLOYEES TRAINED IN FREE COMPETITION, ANTI-CORRUPTION, OFFENSE PREVENTION AND COMPLIANCE WITH ETHICAL STANDARDS IN 2016

⁴This percentage corresponds to the employees that participated in training programs. It doesn't include those who were informed through internal diffusion campaigns.

3.2.2 DONATION AND SPONSORSHIP POLICY

In October 2015, the Board of Empresas Copec approved its community donation policy, which establishes that the company will support initiatives related to social, cultural, environmental, sports, art, and scientific and technological dissemination issues, developed by corporations and institutions that are formally incorporated and duly authorized to receive such donations under current legislation.

This policy, which is a guideline for collaborative decision-making, distinguishes between donations, sponsorship and minor donations to clarify those that are permitted and those not, and the procedure to be followed to grant them. In 2016, Empresas Copec made no donations to political parties.

The subsidiaries Abastible and Orizon have a community donation policy since 2015. This sets out the areas in which the company can make donations, the procedure for their approval and reporting. In 2016, such policies were approved by their respective Boards.

In 2016, Arauco updated and implemented this policy for all its subsidiaries in Chile, defining how the company approves making contributions that directly benefit the community by means of donations, loan and restitution contracts and sponsorship.



3.3 Investor **Relations** /

The Investor Relations area is in charge of serving and guiding investors and analysts on market performance and the progress of businesses. It is also responsible for giving periodic presentations on results and issuing press releases on issues that might be of investor interest.

There are multiple communication tools with them. One of the platforms most used is the website http://investor. empresascopec.cl, which has permanently updated information in Spanish and English. Empresas Copec was also one of the first companies in Chile to launch a mobile app in 2015 for investors and analysts, which shows the company's most important results and news.

Shareholder meetings are also an opportunity to actively encourage the informed participation of all shareholders, ensuring their right to speak and vote and safeguarding the interests of minority shareholders in investment management and decisions.

- Some of the good practices implemented for investor engagement:
- **Professional team:** The area has a team, headed by an Investor Relations (IR) director, comprising three professionals with exclusive dedication to attending investors.
- **Reporting to the Board:** As is procedure, the IR area periodically submits a report to the Board with the main concerns raised in engagement with investors and analysts (road shows, conference calls, presentations or others).
- Timely communication: Before making conference calls, interested parties can access the presentation containing the main issues to be addressed. The agenda also includes time for questions at the end of each meeting to clarify any queries attendees might have.
- Incorporation of sustainability issues on the agenda of presentations: The six presentations given and roadshows undertaken in 2016 included information on communities, the environment, biodiversity, and specific certifications by sector.

- Agenda for the next events: To get good attendance of the information presentation meetings, the area has implemented "save the date" mechanisms. By means of the website, the app and electronic communications stakeholders in the financial market are notified of the next key dates for release of results or conference calls and connection details. The website calendar also includes the press release and dividend distribution dates.
- Communication ban period: One of the most important Corporate Governance practices implemented for managing investor relations was the establishment of a communication ban period; this means that two weeks before reporting results no meetings or telephone calls are held with investors. This voluntary practice was put in place to safeguard all the confidential or sensitive information of the company's financial results.

Empresas Copec's investor relations performance was recognized with nomination for the Alas20 Awards 2015 and 2016. Each year this initiative distinguishes the Sustainability, Corporate Governance and Investor Relations of publicly traded

corporations in Latin America.



Terpel received recognition for its IR practices from the Colombia Stock Market.
It received the award for providing legal, financial and commercial information transparently, timely and truthfully.



Empresas Copec is listed on the Dow Jones Sustainability Index Chile and the FTSE4Good Emerging Index



Empresas Copec was selected to be listed on the Dow Jones Sustainability Index Chile, an index of the leading companies on economic, environmental and social issues, based on a strict and uniform analysis of their annual performance. In the case of Empresas Copec, the best evaluated areas in the economic sector were materiality and business code of conduct, and climate strategy, environmental policy and management systems in the environmental area. In the social sector, the highest rated criteria were the development of human capital, retention and attraction of talent and shareholder participation.

At the same time, in 2016 Empresas Copec was listed on the FTSE4Good Emerging Index of the London Stock Exchange for its international practices on sustainability. The FTSE4Good Emerging Index has a total of 457 companies from various industries in emerging markets, accounting for a market capitalization of over USS 1.8 billion.

Terpel is included in the RobecoSAM sustainability yearbook

Terpel was included for the first time in the RobecoSAM sustainability yearbook, based on a corporate sustainability questionnaire and it received the bronze class distinction in the oil and gas/storage and transportation category.

The company received the Industry Mover 2017 distinction for being the company that made most progress with sustainability in its sector last year, and this is the second year the company has participated in this.



This recognition positions Terpel as one of the leading companies on sustainability worldwide and the top company in Colombia in the fuels business for its economic, social and environmental performance.

3.4 Risk Management /

G4-14 / G4-46 / G4-47

The new comprehensive risk management policy, approved by the Board of Directors of Empresas Copec in 2015, establishes the principles and criteria for identifying, recording, assessing, quantifying and managing risks. Risks are classified according to three categories: strategic, surroundings and processes.

Social and environmental risks are in the surrounding category and are managed by the respective management as decided by the Board.

This policy is monitored and overseen by the Board of Directors and senior management, the latter being directly responsible.

In 2016, the main progress in this area was the implementation of the risk management methodology of Empresas Copec as set out in the policy. The risk quantification matrix outlines the type of impacts, differentiating environmental impacts, those related to people's health and safety, stoppages at operations, legal impacts and those concerning community or reputational issues. To support this methodology, the company designed an annual audit program of 30 mitigation measures and 60 specific actions to reduce the company's exposure to such risks.



To minimize the impact and likelihood of risks to which it is exposed, in 2015 Arauco updated its risk management policy, corporate risk management framework and corporate high impact risk matrix, which includes strategic, financial, operational and compliance risks. The methodology used for this is based on international risk management standards like ISO 31000 and COSO ERM. The development of business continuity plans is based on ISO 22301.



During the year, Orizon started the process of implementing a comprehensive risk management model, including eleven main risks in a matrix approved by the Board of Directors.



4.1 Economic **Highlights 2016** /









Consolidated Assets

2016



4.1.1 ECONOMIC VALUE GENERATED AND DISTRIBUTED

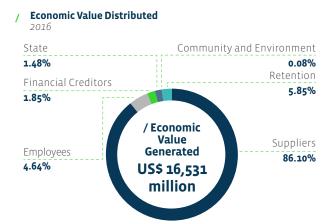
G4-EC1/G4-EN31

The economic value generated and distributed, drawn up according to the GRI guidelines, is shown below for the first time. This graphic shows how Empresas Copec, along with its subsidiaries, has generated value and

how such value was distributed among the different stakeholders, thereby contributing to the development of the economies of each of the countries in which it operates.







The company does not specifically monitor the environmental expenditure so it is not possible to report this amount as required in EN31.

ECONOMIC VALUE GENERATED

The decrease in the economic value generated with respect to 2016 is largely explained by the fall in the prices of all business lines of Arauco, especially in pulp business, where this effect was partially offset by the higher volumes traded.

On the other hand, Copec also recorded lower sales volumes and lower margin in the industrial channel in Chile, although it sold larger volumes in the concessionary

channel and in Terpel, the physical fuels sales in Colombia, Panama, Ecuador and the Dominican Republic increased by 6.0%, 16.2%, 4.3% and 7.2%, respectively.

The variation in the value distribution to the employees is explained by the acquisition by Abastible of the operations of Repsol in Peru and Ecuador, doubling the allocation during 2016, with the consequent reflection in the expenses and associated costs.

4.1.2 BOND ISSUE WITH RECORD RATES IN CHILE

To finance various investment projects of the parent company and its subsidiaries, Empresas Copec made a successful bond issue of about UF 4 million (USS 154 million) in the Chilean financial market. The placement was made by means of two series with 7- and 10-year maturity. Demand was from a diversified shareholder base, including pension fund companies (AFPs), mutual funds and

insurance companies, among others. The risk rating of the bonds by Fitch Ratings and Feller-Rate was AA-. Demand for the I series was 4.5 times the amount placed, whereas for the H series it was 1.7 times.

Likewise, Arauco issued bonds in the domestic market with 10-year maturity amounting to UF 5 million.

4.2 Internacionalization /

Empresas Copec has developed an important industrial and operative base throughout America, and has started to take the first steps outside the continent. The group's productive presence now spans 16 countries and 3 continents.

37.5%
of the noncurrent assets
are abroad

42.8%
of the direct employees are foreigners

41.8%

of the sales come from its foreign subsidiaries

The company has gradually configured a more balanced portfolio that is less exposed to what happens in one geography in particular and in which the more stable businesses like fuels and wood account for a more important share. In 2016, the company carried out a series of acquisitions upholding this approach.

ARAUCO'S OPERATIVE INTERNATIONALIZATION PROCESS

In 2016, Arauco acquired 50% of the Spanish company Tafisa, a subsidiary of the Portuguese group Sonae, for US\$ 150 million. This company produces and markets different varieties of panels, along with sawn timber, at two panel mills and a sawmill in Spain; two panel mills and a resin plant in Portugal; four panel mills in Germany and two in South Africa. The total output of the facilities is 4.2 million m³.

The operation of all these facilities and the enhancement of Tafisa's commercial networks have enabled Arauco to successfully enter new markets with its products, thereby becoming the number two wood panel producer in the world.

Arauco started the construction of a new medium density particleboard (MDP) mill at Grayling, in the state of Michigan, United States. The facility will have a production capacity of 800,000 m³ a year. This initiative will entail outlays of about USS 400 million and is estimated it will be commissioned in 2018. The positive reception of this project by local communities and the authorities after a rigorous but quick approval process should be highlighted.

MAPCO ACQUISITION

In the fuels business, Copec acquired a network of 348 service stations and convenience stores that mainly operate under the MAPCO brand, in the states of Alabama, Arkansas, Georgia, Kentucky, Massachusetts, Tennessee and Virginia. The final operation of US\$ 535 million will enable Copec for the first time to apply its service philosophy outside Latin America, leveraging everything learnt in Chile and in the different countries in which it participates through Terpel.

As has happened in Colombia, the focus will be on giving MAPCO customers a memorable purchase experience. The focus will therefore be on the customer and service, structuring

an operation of excellence at stores and forecourts. For this, the team will initially undertake market research and studies to fully understand consumer habits and behavior and the positioning of MAPCO, its related brands and competitors.

ABASTIBLE EXPANDS TO PERU AND ECUADOR

In 2016, Abastible purchased the Solgas and Duragas brands from the multinational Repsol, which distribute liquefied gas in Peru and Ecuador and are leaders in their respective markets. The deal entailed an investment of USS 335 million and tripled the LPG⁵ volume marketed by Abastible, which has thereby become the third largest liquefied gas distributor in South America and the largest in the Andean region.

AGREEMENT WITH EXXONMOBIL

Copec signed a regional agreement with ExxonMobil to produce and distribute Mobil lubricants in Chile, Colombia, Ecuador and Peru, an important complement to the company's fuels business in the region. Such agreement, which is expected to be completed in 2017, is based on a long and sound relation dating back to 1959. The agreement, at an investment of USS 747 million, also envisages the acquisition of ExxonMobil's fuels business in Ecuador and Colombia, which are markets in which Copec operates through Terpel, and the operation and marketing of aviation fuels at Lima's international airport, an important aviation hub in the region. It is worth mentioning that in the case of the latter country, the assets related to the fuel business will be sold since they are not part of the strategic focus.





⁵ LPG: Liquefied petroleum gas.

4.3 Expansion /

In 2016, Empresas Copec and its subsidiaries kept up their investment and growth rate. Betting on the future, the company carried out various expansion projects, highlighting the following:

CONSTRUCTION OF THE BLUEMAX PLANT

BlueMax is a solution of 67.5% deionized water and 32.5% high purity urea, which is injected into exhaust gases to chemically reduce the contaminating nitrogen oxide (NOx) emissions of diesel motors. Under the generic name AdBlue, the use of this catalyst is required for all trucks and buses under the Euro V emissions standard. BlueMax is the Copec brand of this product.

In September 2016, Copec inaugurated the new BlueMax production unit at the Maipú plant. The large investment made has enabled this cutting-edge infrastructure now to operate at all its production lines to supply the Chilean market. Copec has therefore become a competitive player in this new and growing market.

At the close of de 2016, Copec's BlueMax distribution network had already covered the entire country:

- 22 service stations with bulk sales using special BlueMax pumps.
- Service station sales in containers of diverse formats.
- **Direct distribution** in water trucks to industrial customers who have tanks at their facilities.

THE SAN JOSÉ CANNING PLANT REOPENS

Another investment highlight in the year was Orizon reopening the San José canning plant in Coquimbo, which had been closed since 2013. This initiative entailed an investment of over Ch\$ 700 million and it will have a production capacity of 200,000 cases of jack mackerel a year. It will start up in January 2017.

INAUGURATION OF ABASTIBLE'S NEW CORPORATE HEADQUARTERS

In 2016, and coinciding with the anniversary of six decades of Abastible's operations, the company moved its offices from the tradition location at Av. Vicuña Mackenna 55 to the new and modern facilities at Av. Apoquindo 5550.

4.4 Fines and Sanctions /

G4-EN29 / G4-S07 / G4-S08 / G4-S011

Empresas Copec and its subsidiaries permanently strive to strictly comply with the legal requirements in each area where it has operations. Nevertheless, in 2016 companies of the group received minor fines. In the case of Orizon, the fines concerned aspects of health and safety and amounted to 405 monthly

tax units (UTM6), i.e., around US\$ 28,000. Terpel paid a similar amount of fines in the year in each of the countries where it operates. In the case of Copec, the fines were imposed by the Superintendency of Electricity and Fuels (SEC) for breaching Supreme Decree 160 and amounted to US\$ 105,000.

^{6 1} UTM (31/12/2016)= Ch\$ 46,183





G4-12

To do business, the different companies of Empresas Copec have important logistical and commercial platforms assuring delivery of goods and provision of services with guaranteed safety standards.

As a core aspect of the company's value chain, Empresas Copec and its subsidiaries design strategies and plans to satisfy their customers in each of the industries in which they operate.

5.1 Customer **Service** /

G4-PR5/G4-PR1

Each of the companies has a strong commitment to carry on innovating and developing to generate appealing offers for customers and consumers, the core of the business strategy. Service vocation is a common factor transversal to the industrial sectors, countries and productive processes.

MORE FACILITIES, BETTER CUSTOMER SERVICE

To provide an effective and fast solution for customers with complaints about charge errors, Copec launched a new service called Recorded Charge. Such platform enables any customer to get information about the quantity of fuel really paid and charged for at service stations.

Likewise in 2016, the company launched the new Copec Transport Card, which has a fuel (diesel) control system for companies that need to control their fleet consumption. Due to this system, it is possible to identify the vehicle being fueled and control that this was undertaken into the truck's tank. Ringshaped chips are installed in trucks that are synchronized with the service stations pump nozzles to start the fueling process. At the end of 2016, 134 service stations had this system in place and the company installed rings in over 500 trucks.

Terpel has a consolidated program called RUMBO TERPEL to manage and control the supply of liquid fuels and vehicle

natural gas (VNG) for transport fleets. It operates in the largest interconnected service station network in Colombia, and is focused on companies with vehicle fleets that travel on the country's main roads and need to manage and control fuel for each of their trips. To get it operative, an ibutton is installed in each vehicle, which identifies and controls fueling, and companies can monitor transactions online. For small and medium-sized enterprise (SME) customers, Terpel designed the Mi Empresa (My Company) program, which can manage the fleet fuel expense in a centralized way by means of a prepaid account and a card with a password for each vehicle.

In 2016, Terpel offered various value-added benefits for its Rumbo and Mi Empresa customers. 225 drivers obtained the Driving Skill Diploma and the company implemented the self-management model for 102 customers. Likewise, 835 customers used the online management tool.

Another highlight in the year was the launch of the system of paying for fuel with a smartphone with just one click at Terpel and Copec. By means of a simple, convenient and secure application, users can pay for fuel from their smartphones. PagoClick enables customers to pay securely without getting out their vehicles or needing cash or physical cards.

SERVICE STATION SECURITY

One of the focuses of Copec was on implementing a complete security plan at service stations to safeguard the integrity of customers, franchisees, employees and neighbors of surrounding areas. As part of such plan, the company implemented a series of measures, like a new security transport system, specific communication campaigns, an increase in the number of security guards and cameras, among others. The measures applied have jointly reduced the number of incidents reported at service stations.

CUSTOMER AND CONSUMER AWARENESS BUILDING

San José, one of the main brands of the subsidiary Orizon, designed a series of specific communication campaigns to promote people's healthy eating. The campaigns, implemented through the social networks and the website, provide tips on nutrition, inform about the importance of eating fish and give recipes to prepare them.

As part of the clean industry program, for over six years Terpel has provided training by means of the Industry School, an initiative focused on transmitting the corporate team's knowledge on handling fuels to employees of customer companies to guarantee a safe and environmentally friendly operation. In 2016, the company trained 385 people on site by means of 62 specific sessions.

CUSTOMER SATISFACTION

Copec implemented the new Llámanos (Call Us) communication channel, which is a multiplatform system that meets all the customer needs in a maximum of 72 hours. The system, which is available every day of the year and at any time, channels complaints, queries and suggestions.

The efforts made by Copec have paid off. According to market research, the company maintained its leadership in 2016 with a 58% share of the fuels market and 84% preference as the preferred brand on the highway. In the case of Terpel, a study conducted by Brand Strat confirmed Colombian service station customer satisfaction with the brand and the service, with the company attaining an average score of 8.39 out of 10.

All Arauco's businesses in Chile, Argentina, Brazil, the United States and Canada have developed complaint management systems to give answers to customer requirements. Such systems make a follow-up of complaints using standardized processes.

Particularly in 2016, Arauco also conducted a satisfaction survey of over 300 distributors of the company in Chile, Peru, Colombia and Mexico. This revealed that 75% of those surveyed considered the service to be good or very good and 92% ranked the product quality as good or very good.



5.2 Franchisee and Distributor Network Support

Both Copec and Terpel and their respective subsidiaries work daily to enhance networks and service stations to give consumers a memorable service experience. For this, members and franchisees play a key role; they are the visible face of the brand with consumers and make it possible to achieve the business objectives.

Terpel and Copec have therefore designed various work and growth areas so they can get the return expected

and to assure the service is provided according to its philosophy.

In Chile, Copec ended 2016 with a total of 634 service stations from Arica to Puerto Williams. In Colombia, Ecuador, Panama, Peru and Mexico, Terpel has a network of 2,217 service stations, of which 224 are the company's own service stations and the rest operate through franchisees.

The highlight in 2016 was Copec's commitment to the development of franchisees, i.e., the massification of the SITES technological platform. This is a cutting-edge technological architecture developed by the company to manage and operate service stations. It is available to all franchisees and operates like the "brain" of the facility, centralizing all the information and supporting the rest of the operative applications (like electronic billing, forms of payment) and products (like fueling control with rings, for example).

Its flexibility optimizes the service chain and streamlines the work of service station attendants and the payment process. SITES also has the backoffice of each facility. It also gives the franchisee online monitoring and remote support services for quick problem-solving from the Copec telephone exchange.

Migration started the previous year and continued in 2016, ending the year with 334 service stations migrated (53% of the network). Copec not only handled the implementation of the system but also the training of franchisees, administrative staff and attendants. According to a franchisee survey, this is a stable and valued tool, with 81% of those surveyed giving it a grade of 6 or 7 (with 7 being the maximum) for all its features.

Terpel's closer engagement with its franchisees has generated development for the regions in which it operates and enabled it to offer a differentiated service to consumers.

By means of the Terpel business network (RET) program, it drives the development of 800 businessmen of service stations franchised by Terpel, promoting teamwork, sharing technical knowledge and industry innovation, providing training, and integrating them and the brand. The RET highlights in 2016 are outlined below:

- 78 members participated in the Rompe tus Límites (Break your Limits) leadership workshop, based on values, development and human team alignment.
- 2 knowledge enhancement meetings were held on Terpel's programs and response to concerns about logistical, operative and commercial aspects of their relationship with Terpel.
- 14 members participated in the transition process to new generations to undertake the management of service stations that for years have been their family business.
- 7 regional engagement sessions were held with 630 participants accounting for over 500 service stations, in which members are put in direct contact with suppliers of programs, agreements, products and services for the benefit of those who belong to the RET.
- 6 regional committees were implemented at Antioquia, Bucaramanga, Norte, Occidente, Sabana and Sur, with the attendance of 120 members, to present and provide feedback on Terpel's value proposal.

DISTRIBUTION SAFETY

Abastible applies the safety management system to all its subsidiaries, suppliers and contractors, establishing demanding requirements for the storage, transport and delivery of liquefied gas throughout the value chain. It also performs periodic controls of bulk trucks and their drivers, and keeps its comprehensive transport emergency system permanently updated, whose aim is to prevent accidents in the gas transport processes and prepare the organization for possible emergencies.

5.3 Service Station Attendant Incentive

Pits is Copec's new incentive and benefit program for attendants of its national network of service stations. It was implemented in 2016 with a motivational aim of enhancing the bond between attendants and the company and bolstering the commitment of work teams to customer service.

In this new format, participants accumulate "Pits Points" according to the result of their personal and team evaluations at each facility on issues of service, image and promotion of Copec's campaigns. They can exchange the points they accumulate for nice articles in a household product catalogue. The program closed the year with the participation of 5,430 attendants, of whom 1,960 exchanged their points for articles. Initial evaluations revealed a very positive employee reception of this new system.

The same program has been implemented at Terpel's service stations, and was extended to store staff in 2016.

5.4 Supplier Support

For Empresas Copec, suppliers and contractors are a priority stakeholder in each of the industries in which it operates, as established in the stakeholder matrix and corporate sustainability policy. The company and its subsidiaries makes sure, as a corporate guideline, that fair and timely prices are paid and that there are strictly independent relations, and shall always give priority to profits, quality, timeliness and budget in the company's best interests.





5.4.1 LOCAL SUPPLIERS

To support local development, Arauco has suppliers in the areas where the company has forestry and industrial operations, which provide quality products and services, such as supplies, spare parts, equipment, raw materials and some services, contributing to the social and economic development of the regions in which it has operations. In 2016, the purchases from local suppliers amounted to US\$ 1,769 million in all the countries in which it operates.

	Purchases from local suppliers (Millions of US\$)	% of the total purchases from Arauco's suppliers 2016
Chile	1,184	48.0%
rgentina	116	73.0%
razil	94	37.0%
orth America	375	98.0%

For Terpel, suppliers play a strategic role and it has therefore designed a medium- and long-term mutually beneficial business model, sharing values, best practice and a commitment to sustainable development. In this process, the company permanently makes improvements to its supply processes and implements initiatives for the constant growth of the whole value chain.

In line with the corporate focus on the regions where Terpel is present, the company gives priority to local procurement, generating income and employment around its operation. Due to this philosophy, 71.0% of Terpel's purchases in Colombia in 2016 were local and 96.8% of its suppliers were Colombian.

	% of local suppliers	% of national purchases
Colombia	96.8%	71.0%
Ecuador	98.0%	100.0%
Mexico	97.0%	86.0%
Panama	94.6%	95.9%
Peru	99.0%	99.6%
Dominican Republic	94.0%	99.8%

5.4.2 IMPLEMENTATION OF BEST PRACTICE FOR SUPPLIER ENGAGEMENT

Terpel put in place various supplier engagement practices in Colombia in 2016.

- It installed a new tool, which has revolutionized the procurement process as it provides greater efficiency and quicker approval of order requests, which leads to faster transactions to the benefit of suppliers.
- It also carried out meetings with domestic suppliers, attended by 24 transport suppliers and 164 suppliers of other areas. In such meetings, the company tapped their expectations and needs and defined action plans.
- 1,092 drivers of transport supplier companies in the country were trained at Terpel's Driver School, with an average of 4 hours of training a year per person.

- In each of the countries in which Terpel operates it conducted supplier evaluation processes regarding their management and specifically their relationship with the company. In 2016, 778 suppliers were analyzed and based on the results the company made the fine tuning needed for the correct operation and provision of services according to corporate standards.
- In Colombia, Terpel gauged its supplier satisfaction with the company and the participation of 225 supplier companies. Based on such evaluation, the company will draw up an internal improvement plan.

The Terpel - Transparency for Colombia partnership certified 14 hydrocarbon transport companies that are part of Terpel's value chain, under the "Honest and Transparent Company Way" program, which seeks to embed ethics as a management model, create value and trust in business relations. Besides helping to enhance business management by adopting good practice, this program aims to improve trust in business relations in an ethical environment, along with prevent corruption risks in the business sector.





6.1 Innovation **Management** /

Empresas Copec and its subsidiaries are convinced that investing in innovation is one of the main contributions a company can make, meeting current and future needs and helping with the large task of raising productivity and competitiveness by creating a direct link between research and business challenges. With this conviction, the company and its subsidiaries have driven various initiatives to further innovation

UC ANACLETO ANGELINI INNOVATION CENTER 7

One of the most important manifestations of the commitment undertaken by the company on these issues was the creation of the UC Anacleto Angelini Innovation Center. This Center welcomes all businesses and enterprises and encourages meetings and interaction between the business and academic worlds with the aim of generating knowledge and applied innovation with a high economic, social and cultural impact. In 2016, the Center had 100 institutions as members, which reflects the sound commitment of companies, academics, students, entrepreneurs and representatives of the public sector to promote a culture of innovation and to enterprise.

COPEC - CATHOLIC UNIVERSITY FOUNDATION 8

The Copec-Catholic University Foundation seeks to drive applied scientific research and create public and private strategic partnerships for research and development of natural resources. The Foundation also makes large endeavors to disseminate the main scientific and technological advances in this area.

The organization provides technical, commercial and financial support by means of the National Natural Resource Development Project Competition, the Young Researcher Project Competition, and the Higher Education Student

Competition: 'Apply your Idea.' There is also a private venture capital fund, which is managed by Administradora General de Fondos Security and has the support of the Chilean Economic Development Agency (CORFO). This fund finances technological development projects with high growth potential.⁹

Empresas Copec's support of this important Center driving innovation and research is not only evident with its economic contribution but also the commitment of the company's directors and senior managers, who take part in the decision-making of the Foundation.

INNOVARAUCO 10

Innovation is an essential element of Arauco's approach by combining ideas, technology, creativity and enterprise, which aim to develop new and better solutions for people and their surroundings. With this vision, Arauco invests efforts in two large innovation-driving initiatives: Bioforest¹¹ and Innovarauco, a program that arose in 2011 to inspire, connect and orchestrate innovation and enterprise within the company, seeking to create economic and social value and develop appealing commercial products. In this context, the design of the innovation strategy at Arauco, called the Arauco Innovation Model (AIM), is focused on three areas: creation of new value propositions, efficiency of operations and sustainability, and social footprint.

Arauco has currently managed to lead, carry out and drive important projects that have enhanced a way of working of open and collaborative innovation like: promoting the use of wood in construction; care and sustainable stewardship of native forests; innovation of panels, and driving social innovation and shared value projects.

⁷ http://centrodeinnovacion.uc.cl

⁸ www.fundcopec-uc.cl

⁹ www.fondocopecuc.cl

¹⁰ http://www.innovarauco.cl

¹¹ Presented on page 47 of the environmental management chapter.





In 2016, Innovarauco put in place various innovative spirit-driving activities, like holding 24 innovation courses in the company, the implementation of five prototypes for the challenge of safety innovation and the development of the Antihuala initiative with the AcercaRedes Foundation and the Illinois Institute of Technology (IIT) to build a wooden pavilion at the edge of the Antihuala lagoon.

PROMOTING INNOVATION AT TERPEL

Convinced that it is one of the drivers to achieve the business challenges of the current context, Terpel has put in place an innovation management system in accordance with the standard NTC 5801-5202 on research, development and innovation management. Due to this, in 2016 it was awarded the good practice seal by Icontec and the Bogotá Chamber of Commerce in recognition of the work done in this area

It should also be highlighted that Terpel received the Steel Pen Award in the POP category for its deuna kiosks, in recognition of the design of its spaces. With the premise that innovation must not only be indoors, in 2016 the Terpel Foundation also held its fifth version of the Design the Change program, which promotes the creation of ideas to transform surroundings and implement innovative and sustainable solutions for community problems. On this occasion, over 96,000 children and youngsters from 108 schools in Colombia participated.

CREATION OF THE INNOVATION ASSISTANT MANAGEMENT

In 2016, Abastible created a specialized unit to promote innovation with the clear mission of providing innovative solutions for products, processes and services. This change in the organizational structure included an innovation promotion plan for employees themselves.

6.2 Product and **Service Innovation** /

G4-EN27

Innovation endeavors at Empresas Copec led to a host of projects involving concrete contributions to the economic, social and environmental development of the countries in which the company operates. A series of examples of such efforts are outlined below.

Lookid uses technology to complement the game experience, creating applications and communities that can inspire children, parents and teachers to create new didactical content.

VESTO

In 2015, VESTO Melamine, unique worldwide for its antimicrobial copper properties, became the first panel in the world to be certified as carbon neutral under the PAS 2050 and PAS 2060 standards. This means that the product's carbon footprint analysis is a negative footprint for carbon emissions, so the CO2 emissions generated throughout the product lifecycle are offset and exceeded by the CO2 captured by the company's forests. In 2016, Arauco continued to drive its promotion with the launch of a new line of VESTO Melamine designs available to customers on the whole continent.

This melamine with antimicrobial copper protection, a joint innovation project with Codelco, is generally used to make furniture for bathrooms, kitchens, the home, offices, hospitals and commercial facilities and it can eliminate bacteria, fungi and viruses with 99% effectiveness, which greatly reduces the risk of infection, allergies and sources of contagion in environments where daily activities are undertaken.

LOOKID 12

Arauco launched Lookid in 2016, a didactical children's toy made of antibacterial wood boards of different sizes and shapes, and connectors made with recycled fishing nets. This innovative toy seeks to entertain and develop the creativity of children of 4 to 12 years by means of collaboration, enhancing problem-solving and critical thinking by using sustainable materials.

TCT PREMIUM

One of the highlights for Copec in 2016 was the official launch of TCT Premium, a system of electronic rings that are attached to the inlets of fuel tanks on each truck and which, when trucks are filled with diesel at service stations with this system, they send a radiofrequency signal to the corresponding fuel pump nozzles. TCT Premium thereby provides maximum security and control of fuel consumption, as it guarantees the presence of the vehicle on fueling, giving the customer absolute certainty that everything actually billed ends up in the fuel tanks of their fleet.

The success of TCT Premium is reflected in the excellent figures for this product at the end of 2016: 134 Copec service stations implemented with this system and over 500 trucks with rings installed.

In practice, TCT Premium is innovation that is greatly awaited and valued by company customers, which Copec already served with the Copec transport card and using its 24/7 management and credit system for fueling in the network.

PAGOCLICK

Another area of innovation at Copec in the year was renewal of its pioneer PagoClick application. The new platform, guaranteeing simple, easy and secure use, enables users to pay for fuel from their smartphones at over 500 Copec service stations with the system, without

¹² www.lookid.cl



getting out of their cars or needing cash or physical cards.

This solution allows users to get exclusive discounts and promotions and review their purchase history. The renewal of PagoClick has led to large growth of downloads and transactions.

The same PagoClick solution was implemented at Terpel service stations.

TERPEL AT THE CUTTING EDGE OF INNOVATION

After several years of research by Terpel's lubricant innovation and development team, Colombia's Superintendency of Industry and Commerce (SIC) gave Terpel the invention patent for creating the "Terpel Celerity 10W40 synthetic-based lubricant to get higher performance from motors" for four-stroke motorcycle motors.

Terpel also presented its new Terpel Maxter 15W40 Advanced product with API CK-4 certification of the American Petroleum Institute (API). This is a specialized product for the latest generation diesel engines that promises to be cutting-edge for complying with the highest international quality and environmental standards.

Terpel launched the first automated wash in Latin America, Ziclos Motos, in the cities of Cali and Pereira, which in only three and half minutes washes vehicles without getting wet with a modern demineralized water-pressured washing system that leaves no residues or blotches.







One of the pillars of Empresas Copec's vision is to "promote the sustainable use of natural and energy resources of the environment, investing in research, technology innovation and training to prevent and gradually, continually and systematically reduce the environmental impacts of its activities, products and services."

With this corporate premise, the companies of the group undertake action that goes beyond compliance with current regulations and involves the development of sustainable business, active collaboration with national bodies and authorities and helps to preserve ecosystems.

Arauco, Terpel and Copec have managements that are specially responsible for environmental management. In the case of Abastible, in 2016 it created the safety and

environmental management that reports directly to the CEO with the aim of transforming the company into a world-class operator. Likewise, in 2016 it approved a new corporate quality, environmental, safety and occupational health policy.

The main facilities of the group conduct environmental monitoring to assure compliance with the commitments and have suitable surveillance and for this they have established environmental indicators on supplies, raw materials, waste, water and energy consumption, among others.

The environmental management systems of Arauco, Terpel and Abastible are certified according to diverse standards. The Annex chapter of this report shows the certifications of each of the subsidiaries of Empresas Copec.

7.1 Energy

G4-EN3 / G4-EN5 / G4-EN6

ENERGY CONSUMPTION WITHIN THE ORGANIZATION (GJ)

		2015				20	16	
Company	Fuel Consumption	Renewable Consumption	Electricity Consumption	Total Energy Consumption	Fuel Consumption	Renewable Consumption	Electricity Consumption	Total Energy Consumption
Arauco	No Information	10,555,200	19,800,000	30,355,200	No Information	9,000,000	21,400,000	30,400,000
Terpel	467,364	48,294	510,427	1,026,085	566,219	57,442	478,567	1,102,228
Orizon	37,218	-	76,744	113,962	37,750	-	84,990	122,740
Abastible	12	-	17,032	17,044	11	-	20,145	20,156
Empresas Copec	-	-	321	321	-	-	266	266
Total	504,594	10,603,494	20,404,524	31,512,612	603,980	9,057,442	21,983,968	31,645,390

Energy consumption within the organization dropped 2.3%, mainly due to Terpel's reduction in energy consumption. It should be mentioned that Abastible has a commitment in 2017 of reducing its energy consumption by 1% compared to 2016.

ARAUCO: CLEAN AND RENEWABLE ENERGY PRODUCTION

Arauco's commitment to the environment is an integral part of its business model, safeguarding the sustainable management of its resources and applying management standards that assure continuous environmental enhancement. In line with this commitment, Arauco set a challenge over two decades ago of producing clean and renewable energy from the forest biomass. The company has invested large effort in generating energy from projects certified internationally under the Clean Development Mechanism (CDM).

The company is thereby electric power self-sufficient and participates by injecting the surpluses of its industrial mills into the power grid of the countries in which it

operates. In 2016, Arauco therefore became one of the leading non-conventional renewable energy (NCRE) generators in Chile with an installed capacity of 606 MW and a capacity of 219 MW to be injected into the central power grid (SIC). The company has two power generating plants with an installed capacity of 78 MW in Argentina and one 165 MW plant in Uruguay.

In 2016, Arauco injected energy surpluses of 1,089 GWh into the SIC in Chile, which sold in the spot market entailed income of about US\$ 67 million. Arauco thereby accounted for 2% of the total energy injected into the SIC. Just considering NCRE-based generation, the company's electric power injection was about 5% of the total energy.

The medium-term plans are to increase the installed capacity from the current 606 MW to 1,000 MW in the future. Nevertheless, this increase will depend on regulatory approval and the development of new industrial facilities that have new electric power plants.

RENOVA PROGRAM: NCRE AND ENERGY EFFICIENCY AT SERVICE STATIONS

Aware of the need of boosting the use of environmentally friendly technologies and using resources efficiently, in 2008 RENOVA Copec was born, which is a project that has a set of initiatives with a common aim of helping to reduce the environmental impact of service stations.

With this objective, the company has implemented a series of initiatives firstly on powering service stations with NCRE sources and secondly putting technologies in place that generate new energy efficiency opportunities.

Regarding NCRE, the company has installed different technologies at service stations that transform solar, wind and earth energy into electric or caloric energy. Throughout Chile, the network has aerogenerators, solar thermal panels, solar photovoltaic panels and geothermal-based air conditioning systems. Due to these devices, it is possible to reduce the electric or thermal consumption of service stations, generating savings and a cleaner operation.

NCRE	Measure	Monthly consumption reduction	Monthly carbon emission reduction
Solar thermal energy	53 solar thermal panels installed at 4 service stations	5.7 MWh	2.2 [tC02]
Wind energy ¹³	36 wind turbines at 18 service stations14	4.4 MWh	1.8 [tCo2]
Solar photovoltaic energy	204 photovoltaic panels at 6 service stations	13.5 MWh	5.3 [tCo2]
Geothermal energy	A geothermal energy systems at 2 service stations	8.0 MWh	3.1 [tCo2]

All these measures implemented at a total of 274 service stations have definitely led to a monthly saving of 361 MWh, equivalent to the average energy consumption of 1,642

homes. RENOVA has also managed to reduce monthly CO2 emissions by 152 tons of CO2.









The company is currently analyzing the energy profile of service stations, so that in the future it can carry on implementing different practices and new technologies

to continue to reduce consumption but maintain the customary quality and service.

²³ A fourth wind farm is under construction on the Austral road in Chile.

¹⁴ The aerogenerators installed are turbines with a rated capacity of 2.4 kW, designed to generate with wind speeds of 3.5 m/s or higher.

ABASTIBLE AT THE CUTTING EDGE OF ENERGY INNOVATION FOR THE CHILEAN INDUSTRY

The electric and thermal cogeneration technologies, solar energy and electric power generation developed by Abastible have been greatly appreciated by national industry. They help to reduce energy consumption and emissions, leading to large fuel savings which in some cases exceed 70% of the use of liquefied gas and the consequential environmental impact.

In 2015, the company successfully implemented the first microturbine cogeneration project in Chile in the industrial area. This is the South Am plant in Buin, a pioneer in the production of lyophilized fruit. The company decided to replace the traditional steam boiler system with this new technology, which enabled it to generate energy savings, reduce its carbon footprint and improve its productive processes.

The advantage of microturbines is that they can generate electric and thermal energy at the same time, with a high degree of efficiency and very low contaminating emissions. The main focus is on producing energy in isolated areas where there are no electric power lines, such as salmon farming companies, the mining industry, hotels, or in places where electric power is very expensive.

Abastible has also successfully developed the solar thermal energy business. This is an efficient system that combines liquefied gas and the installation of panels that tap solar energy to heat fluids in industrial processes and domestic water. They are efficient systems that generate savings of up to 70% of the gas consumption of the annual bill.

COPEC PROVIDES A NEW ENERGY ALTERNATIVE FOR INDUSTRY

One of Copec's permanent challenges is to expand its business areas to markets in which it has strategic advantages. This commitment to innovation was reflected in a great milestone in 2016 for the company, i.e., the construction and commissioning of its first liquefied natural gas (LNG) industrial facility.

The basis of this business is the fact that LNG can be distributed in a liquid state at -160°C, which enables it to be transported over land in trucks specially designed for this. Subsequently, in a satellite regasification plant (SRP) this



fuel can return to its gaseous state to feed boilers, furnaces or burners. This means that an industry can be supplied with LNG without depending on the limited distribution capacity of the national gas pipeline network.

To get LNG, Copec signed a purchase agreement with Enel, one of the companies with access to the LNG terminal at Quintero.

In June 2016 Carozzi signed an unprecedented 5-year renewable LNG supply agreement for its tomato processing plant at Teno in the Maule region. The company built an SRP there, and it is estimated that the operation will be very profitable compared to the high investment needed in filter systems to mitigate liquid fuel emissions.

The signing of this agreement has led to a greater challenge for Copec: the commitment of building an SRP from scratch to feed the boilers of Carozzi's plant with natural gas. It was the first time the company undertook a project of this kind and with a successful result. After designing the project and purchasing equipment in Spain, then came the assembly works at Teno. Due to efforts of the project, construction and engineering teams, the company commissioned the plant after 7 months of works, just at the start of the harvesting period when the processor requires more energy.

7.2 WATER

G4-EN8/G4-EN10

WATER CONSUMPTION	(m³)
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COMPANY	2015	2016		
Arauco	168,100,000	167,600,000		
Terpel	1,346,701	1,126,395		
Orizon	742,934	645,988		
Abastible	33,488	60,644		
Empresas Copec	457	462		
TOTAL	170,223,580	169,433,489		

MAXIMUM WATER MANAGEMENT

Water is a very important resource in Arauco's productive processes, so the company constantly strives to attain the right water management at operations. At some wood pulp mills, like Nueva Aldea and Valdivia, the respective authorizations make it mandatory to take certain measures about the productive processes, if the flows of supply sources drop below their ecological flows.

There are various initiatives to maximize water use. For example, sawmills in Chile recirculate water from the wood drying process, and the wood pulp mills reuse the boiler and cooling system water in their processes. In Argentina, the company implemented a system at the MDF mill and Energía Piray to reuse treated liquid waste from the preparation of flocculant and the Araucaria mill in Brazil started a process to reuse industrial wastewater, managing to reuse 35% of the waste generated.

A critical variable of Arauco's integrated management system is the protection of watercourses. Within the hydrological cycle, plants, the soil and subsoil play an essential regulating role. Although forest plantations, like native forest and other vegetable species absorb water to undertake their biological processes, their foliage intercepts rainfall, greatly reducing its erosive effect on the soil.

In Argentina, the company continued action to recover water basins and other sensitive areas, accumulating over

3,000 hectares since 2003. The activities undertaken include the removal of productive areas to recover watercourse edges and sloping land. It implemented an irrigation water reusage system at the Bossetti nursery to reduce water withdrawal by about 10%.

In Brazil, the company has been conducting a continuous watershed monitoring program since 2011 to assess the effects of land use and forestry stewardship on water availability, quality and consumption.

RECYCLING WATER AT COPEC CAR WASHES

Car wash tunnels and portals are one of the highest users of water at service stations. A car wash tunnel uses an average of 18,660 m³ of water a year, whereas a car wash portal uses 3,591 m³ a year. Therefore, and in line with its RENOVA program that aims to reduce the environmental impacts of service stations, Copec has implemented recycling systems at Lavamax car washes that recover about 80% of the water used in the process. The water recycler collects water from the cash washes and conveys it through a series of settling tanks, filters and a cyclonic particle separator. The final water is clear but not drinkable, and is injected into the intermediary car washing stages without affecting the quality of the wash. At the close of 2016, the company had 10 water recyclers and is planning to carry on adding further recyclers to other service stations.

EDUCATION ON WATER CONSERVATION

With the aim of working with the community to find water conservation techniques, in 2016 Arauco, the Chilean Wood Corporation (CORMA) and the Center for Education and Technology (CET) trained neighbors of Quillón, Ránquil, Florida, Hualqui, Tomé, Coelemu, Trehuaco, Quirihue, Ninhue, Concepción, Portezuelo, San Nicolás, Penco and Cobquecura on new water conservation practices and technology.

7.3 BIODIVERSITY

G4-EN13

7.3.1 BIODIVERSITY MANAGEMENT

To undertake their activities, Empresas Copec and its subsidiaries have a commitment to preserve ecosystems as an ongoing and long-term policy. For this, subsidiaries have implemented a wide range of initiatives in each of the countries where they operate on the proactive protection of the biodiversity and promotion of research in this area.

Arauco has a biodiversity and ecosystem service policy that is focused on the assessment and management of the possible production effects on diversity with research programs and management protocols. The company also has a biodiversity monitoring program that covers three large areas in the forestry sector:

- Protection of native forest;
- High conservation value areas (HCVA) and protection of and respect for the biodiversity present in the forest wealth;
- Forest fire fighting and prevention and forest wealth protection programs.

a) Protection of Native Forest

Arauco is committed to the protection of native forest on its lands, with it being understood that the sustainability of its productive processes is related to biodiversity and the ecosystem services of the habitat. Continuous monitoring enables the company to identify changes timely and drive prevention and restoration measures. For the management of its forest wealth in Chile, Argentina, Brazil and Uruguay, Arauco adheres to responsible forest management according to international standards and undertakes research applied to the integral use of plantations.

COUNTRY	Hectares of native forest at the close of 2016	% of native forest/ forest wealth
Chile	212,124	19.1%
Argentina	118,272	44.9%
Brazil	73,285	40.4%
Uruguay	4,930	4.0%

At the close of 2016 and consolidated level, 29% of Arauco's forest wealth was native forest and protection zones, conserved for current and future generations.

b) High Conservation Value Areas (HCVA)

Any area with value deemed extraordinarily significant or of critical importance is called a high conservation value area (HCVA). The company has programs for these HCVA on knowledge of the ecosystems and protection of endangered species, along with programs for the conservation of religious and cultural sites of local and indigenous communities. The company carries out thorough controls on each HCVA to prevent hunting and illegal harvesting, forest wildfires and keeps records of sightings of endangered flora and fauna.

COUNTRY	Hectares of HCVA	Number of biological HCVA	Number of social, cultural or religious HCVA
Chile	59,818	37	89
Argentina	54,752	14	31
Brazil	6,813	8	6

One of the largest HCVA is Oncol Park, a 3,000-hectare protected wildlife area in the coastal area of the Los Ríos region. It was declared an HCVA due to the biological importance of the Valdivian forest and as a habitat for species. It has a work plan which, along with managing and safeguarding its unique biodiversity, seeks to benefit and integrate the surrounding communities so that conservation becomes a shared objective and an opportunity of economic and social development for them. The Oncol territorial engagement program operates

with social and productive organizations to promote the environmental education of over 1,200 children. This successful program won the AmCham Good Corporate Citizenship Award for being the best environmental educational program.

c) Forest Wealth Protection and Prevention of Forest Wildfires

The aim of the forest wealth protection and firefighting and prevention programs is to protect both the integrity of the company's forest wealth and protected areas along with their biodiversity. For this, the company has specific programs for phytosanitary protection, integrated plague management and forest firefighting and protection.

It should be highlighted that over 60% of the forest wildfires that affect Arauco are started on third-party lands, so in all the countries in which it operates there are information and prevention programs for the communities, which are held with civil bodies and the state. These programs promote environmental awareness to prevent wildfires by means of workshops in schools, community support operations, door-to-door visits, risk control and provision of forestry management techniques, like shredding of waste, pruning and removal of branches, and construction of firewalls

The 2016-2017 season in Chile was particularly affected by a series of wildfires in January 2017 that ravaged a large part of Arauco's forest wealth in the northern zone. Due to this situation, about 80,000 hectares of plantations were affected, along with the El Cruce sawmill at Santa Olga in the Maule region. To fight these wildfires, the company provided more than 1,300 firefighters, 8 planes, 10 helicopters, and over 100 mobile vehicles that transported water and heavy-duty machinery to make firewalls.

SUSTAINABLE FISHERIES

For Orizon it is essential that its fishery and industrial operations are undertaken fully respecting the environment and current regulations on this, and it seeks to attain the sustainable development of its business in harmony with the surroundings. In line with its concern for environmental care, the company performs its operations with total respect for current regulations, permanently monitoring the air quality, liquid discharges into the sea and full compliance with biological closed seasons, the size of fish and catch quotas.

In the use and sustainable management of its raw materials, the most important are renewable natural resources (fish), whose sustainability and fishing in Chile is managed by the state. The conservation of the resources that the company extracts and farms is governed by the provisions of the General Fisheries and Aquaculture Law¹⁵. In such area, Orizon supports and promotes the regulation of extractive activities based on technical criteria, clear regulations and strict control, which assures the sustainability.

In particular, in 2016 Orizon implemented a fisheries law management system at the Coronel plant, which helps to review the degree of knowledge, compliance and responsibility regarding the conservation and management of fisheries and protection of their ecosystems, along with the periodic evaluation of the efficiency of the measures adopted. This system will be implemented at the Coquimbo and Puerto Montt plants in 2017.

The company also secured recertification of the IFFO-RS¹⁶ for two more years, which applies to the Coquimbo and Coronel fishmeal plants. Regarding mussel farming in Los Lagos region, Orizon has certification by the NGO Friend of the Sea–Sustainable Aquaculture, one of the most important and demanding international organizations on certification of aquaculture products and sustainable fisheries.

¹⁵ Law N°20.657 of 2013.

¹⁶ The Fishmeal and Fish Oil Organization; Responsible Supply of The Marine Ingredients Organization.



MARINE ENVIRONMENT MONITORING AT THE SAN VICENTE MARITIME TERMINAL

In 2016, Abastible implemented an environmental monitoring plan for the marine environment around the San Vicente Maritime Terminal. Such study showed that the project does not affect the biodiversity in the area or the physical and chemical parameters of resources, as requested in the Environmental Qualification Resolution of the San Vicente Terminal.

7.3.2 RESEARCH ON CARE OF BIODIVERSITY

MARINE APPLIED RESEARCH CENTER (CIAM)

The CIAM was created in June 2014 to promote research on the sustainability of fisheries in the north of Chile. The information gathered by the CIAM is currently key to decision-making on the present and future of industrial and non-industrial fisheries in the great north of Chile.

BIOFOREST

Bioforest is Arauco's own scientific-technological research center. With a team of 130 people, its aim is to conduct various studies to increase the quality,

performance and productivity of forest plantations and the wood pulp production process, and apply state-of-the-art procedures in the fields of forest health, biotechnology and ecosystem management. It also undertakes important work to achieve the environmental objectives, like the conservation and protection of the biodiversity present on over 400,000 hectares of Arauco's native forest.

One of Bioforest's project highlights in 2016, jointly with the University of Concepción, the Environmental Ministry and German experts, was to reintroduce "Darwin's frog," an endemic species of Chile now in danger of extinction, in the Nahuelbuta National Park.

Bioforest has become a unique scientific and technological research center of its kind in Chile and South America.

BIOENERCEL

Moreover, Arauco, along with CMPC, Masisa, the University of Concepción, the Catholic University of Valparaíso and Fundación Chile, participates in the technological consortium Bioenercel S.A., whose aim is to develop technologies to produce biofuels from forest waste.

7.4 Empresas Copec and Climate Change /

G4-EN15 / G4-EN16 / G4-EN18 / G4-EN19 / G4-EN21

GREENHOUSE GAS (GHG) EMISSIONS

GHG emissions ¹⁷	2	01418	2	01519	2	01620
•••••••••••••••••••••••••••••••••••••••	Tons CO2e	% Coverage ²¹	Tons CO2e	% Coverage ²¹	Tons CO2e	% Coverage ²¹
Total direct emissions (scope 1)	627,491	47.6%	70,432	67.4%	2,457	29.8%
Total indirect emissions (scope 2)	53,543	47.6%	64,680	67.4%	23,560	29.8%

The variation of the total emissions reported is mainly due to the coverage of the data.

The main emissions impact was a positive environmental footprint related to climate change, as Arauco's forest wealth meets the natural function of storing carbon, capturing CO₂ from the atmosphere and releasing oxygen into the air, thereby helping to reduce GHG and mitigate the effects of such phenomenon.

Each company generates carbon emissions from its industrial activity. In 2016, the company gauged Arauco's carbon footprint in 2014 and is currently working on a joint assessment for 2015-2016, whose results will be available in the second half of 2017.

Arauco continuously monitors the TRS²² gas emissions at its mills, and maintains operating control to minimize bouts of TRS gas odor and/or vents into the atmosphere. The particulate matter air emissions are controlled by means of mitigation equipment like gas washers and electrostatic precipitators. Emissions from wood mills, caused in the sawing and remanufacturing process, are minimized by means of sleeve filters that gather this dust to make use of it as a biomass fuel.

In 2017, several mills will implement the system of capturing, conveying and burning of TRS diluted gases, which besides operational measures will optimize even more the management of these issues at wood pulp mills.

¹⁷ On drawing up this report, the subsidiaries Arauco and Copec were in the process of performing their respective carbon footprint assessments.

¹⁸ Includes the emissions of Terpel and Arauco.

¹⁹ Includes the emissions of Terpel and Copec.

²⁰ Includes the emissions of Terpel.

²¹ It is referred to the reported subsidiaries in relation to the total sales of the company.

²² Total reduced sulfur.

GAUGING THE CARBON FOOTPRINT AT TERPEL COLOMBIA

In the fight against climate change, Terpel pledges to reduce GHG.

In 2016, the company implemented a control of the emissions of transport hired and the Saving and Efficient Use of Natural Resources program, whose aim is the optimization and efficiency of energy consumption by implementing good practice and

seeking alternative supply sources, like renewable energy.

The company shows its commitment to climate change by financing scientific studies and research on the development of the biofuels industry and driving the use of natural gas vehicles.

EMISSIONS 2016 TERPEL COLOMBIA



^{*} Scope one: direct emissions
** Scope two: indirect emissions by generating energy
*** Scope three: other indirect emissions

GHG EMISSION REDUCTION PROJECTS

Arauco has five biomass-fired power generating plants in Chile and one in Uruguay, registered as GHG emission reduction projects under the Clean Development Mechanism (CDM) of the Kyoto Protocol, which will reduce around 650,000 tons of CO2e a year.

In 2016, the company issued 109,844 emission reduction credits (ERCs) under the CDM, attaining a net accumulated issuance of 3,499,193 ERCs and in the case of the Viñales project it issued 96,119 verified carbon units (VCUs).

Boosting renewable CO2 biomass-fired electric power generation as a mitigation measure against global warming has put Arauco in a leading position, and it has received various national and international accolades.



COPEC CARSHARING 23

The company implemented the first carsharing (Awto) in Chile in July 2016. Seven of Copec's service stations in Santiago are part of Awto, the first carsharing service that enables customers to rent a car for minutes, hours or days. The user can thereby opt for this service, which has all the benefits of the owned car but with saving on ownership costs like fuel, insurance, among others, which are included in the service

The aim of carsharing is to share the use of the car, like the bikeshare system. This initiative, which seeks to innovate in

the Santiago transportation system, is already operating in Europe, the USA and Brazil and has had positive results for city sustainability. It is estimated that each carsharing car can avoid adding 13 to 15 vehicles to the total number of cars, which could directly help with decongestion and better air quality. These are the reasons that motivated Copec to partner with Awto, and it is the only fuel company that has brand parking lots.

The Awto operation started with 46 city cars, of which 10% have hybrid technology.

²³ Further information at: www.awto.cl

PILOT PLAN TO REPLACE WOOD HEATERS WITH LIQUEFIED GAS HEATERS

In 2016, and under an agreement signed by Abastible and Ursus Trotter to have one thousand heaters in the next few months in the city of Coyhaique, the company launched a pilot plan to replace the traditional wood heaters with liquefied gas heaters.

The pilot plan was implemented in three social houses, a restaurant and at the municipality of Coyhaique itself. It was designed jointly by the regional ministerial secretary (SEREMI) of the environment and Abastible.

Therefore, and in line with the decontamination plan for Coyhaique, the company is offering the people an alternative form of heating with a calorific value 244% higher than certified wood, besides being a clean fuel with no contamination in the home.

Liquefied gas is the natural substitute of wood, as verified by the study of the Intelis analysis center and the faculty of economics and business of the University of Chile, which concluded that LPG is the cheapest and most efficient alternative.

OTHER EMISSIONS

	2015 (tons)	% Coverage ²⁴	2016 (tons)	% Coverage ²⁴
Direct NOx emissions	8,217 ²⁵	48.1%	85 ²⁶	18.4%
Direct SOx emissions	4,85627	45.1%	5 ²⁸	29.8%
Direct VOC emissions	107 ²⁹	28.3%	295,86530	35.7%

In 2016, the company did not consolidate the data on nitrogen oxide (NOx) or sulfur oxide (SOx) for all

the subsidiaries. It only presented the information of operations that made measurements in the year.

²⁴ It is referred to the reported subsidiaries in relation to the total sales of the company.

²⁵ Includes the emissions of Terpel, in Peru and in the Dominican Republic, Arauco and Abastible.

²⁶ Includes the emissions of Terpel in Peru and Abastible.

²⁷ Includes the emissions of Arauco and Terpel in Peru and in the Dominican Republic.

 $^{^{\}rm 28}$ Includes the emissions of Terpel in Peru.

²⁹ Includes the emissions of Arauco.

³⁰ Includes the emissions of Copec.

7.5 WASTE /

Waste management is pertinent to the operation and regulation of each company. At consolidated level, in 2016 the company produced a total of 1,227,811 tons of waste.

Regarding hazardous waste in particular and considering the data of Terpel, Arauco and Abastible, there was a 24% decrease on 2015, largely due to the efforts made at the subsidiary Arauco.

COMPANY	TONS OF HAZARDOUS WASTE		
Arauco	11,494		
Terpel	1,034		
Orizon	177		
Copec	482		
Abastible	281		
CONSOLIDATED TOTAL	13,468		

With the aim of reducing the generation of waste, Arauco permanently gives priority to alternatives of valorizing and/or reusing some elements. In the forestry area, in Argentina, for example, the company has sought alternatives for the stockpiling and treatment of waste from forestry operations. It also implemented recycling of agrochemical drums and boxes and the collection of bay protection plastic delivered to a recycling cooperative.

Non-hazardous waste from the wood pulp industry mainly consists of ash, sand, solid waste from the caustification process, lime carbonate, sludge from the effluent

treatment plants, bark not apt to be burnt and others, which are mostly disposed of at own non-hazardous waste deposits. Regarding this, in Chile the company has managed to send bark to forest lands for use at plantations located in ravines and to recover logging yards.

On the other hand, Arauco has worked with the company VerdeCorp, engaged in industrial innovation, and managed to transform waste that used to be disposed of in sanitary landfills into a raw material to make a base substrate and pH regulator on agricultural lands called "forest earth," and the products are used in different crops like large vineyards, cherry trees, among others. There are initiatives in the research and development stage for the valorization of ash, dregs and grits in the cement industry as the first opportunities to make a contribution to the circular economy.

29% of the non-hazardous waste generated at wood pulp mills was valorized in 2016, i.e., 109,602 tons, whose authorized destinations were forest lands and VerdeCorp, besides the waste used for the closure of the Arauco mill waste dump.

Terpel recycled 4,941 drums at the lubricant factory, no longer producing 85,017 kilograms of hazardous waste and making a saving of USS 64,000. The company voluntarily conducts audits on the companies that provide final disposal services for the hazardous waste generated at all the work centers to assure they comply with current legal regulations.

COPEC'S VÍA LIMPIA

Through the lubricants area, Copec offers its customers a complete solution for the hazardous waste management issue at facilities and for industrial machinery.

By means of authorized trucks, the company removes used lubricating oils, grease, containers, water and solids free of charge. This waste is then transported safely to destinations certified environmentally by the authorities and stored safely or put through recycling processes (for example, like fuel for cement plant kilns).

In an environmentally friendly way, Copec therefore helps to close the lifecycle of hydrocarbons and recovers 40% of the lubricant volume marketed.

This service operates from Arica to Punta Arenas, even in remote areas, and always strictly adhering to environmental legislation and is certified under the rigorous ISO 9001:2008, ISO 1400:2004 and OHSAS 18001:2007 standards.

7.6 EFFLUENTS /

G4-EN22

Most of the industrial plants of Arauco generate liquid industrial effluents, which are permanently monitored and regulated by specific environmental regulations. All the wood pulp facilities include primary and secondary treatment and two of them tertiary treatment: Valdivia permanently and Nueva Aldea when effluents are discharged into the river and not the sea.

The timber business mills also treat their effluents in the wood pulp mill systems or have their own treatment systems. The Cholguán mill in Chile has an activated sludge system

and discharges effluents into the Itata river and the Viñales bioenergy plant discharges its effluents after being treated.

In Argentina, Piray treats its effluents in a biological reactor, sedimentator and equalization pond for subsequent discharge into the Los Angelitos creek. The chemical division plant discharges effluents into the Paraná river after biological treatment.

The panel mills in Brazil have biological treatment and their effluents are discharged into nearby rivers.

WASTEWATER (MILLIONS OF M3)

Business	2014*	2015*	2016*
Wood Pulp	140 (46 m²/ ADt)	136 (44 m²/ADt)	130 (43 m²/ ADt)
Timber	2.6*	4.6*	4.8**

^{*} Only considers Chile.

^{**} Only considers the values of the Viñales bioenergy plant in Chile.

7.7 SPILLS /

G4-EN24

Fuel spills are one of the main environmental risks for Empresas Copec and its subsidiaries. Terpel and Copec have therefore designed contingency plans at each work center to act timely in such events. The company trains staff by means of emergency brigades, drills and training sessions to deal with these situations and minimize the impacts on the environment and safety of people.

	2015	2016
Total m³ spills	59.8	324.4 ³¹

The increase in the reported number of spills was partly due to the higher data coverage. In Colombia, Terpel reduced the number of spills compared to 2015, but there was an increase in the volume of barrel spills. The main reasons for the spills were inappropriate conduct and the conditions or failures of systems, for which the company designed action plans.

Likewise, in 2016 there was an event at the Arauco wood pulp mill, and such incident entailed the burst of a duct in the effluent treatment plant sector that caused a specific and limited untreated effluent spill. The event was detected timely and the process stopped to repair the duct. The company monitored the groundwater and there was no environmental impact. The investigation reports and results were delivered to the competent authorities, which ruled out any impacts on the environment or people.



³¹ Includes the data of the subsidiaries Abastible and Terpel in Colombia, Dominican Republic and Panama.



For Empresas Copec financial and commercial growth should go hand in hand with the development of the surroundings and generation of value in each of the areas where it operates. A corporate commitment of its sustainability policy is therefore that "in all its activities, Empresas Copec seeks to contribute to society by generating the most value possible, which sustainably benefits the different stakeholders with whom it engages, by means of efficient, responsible, innovative and quality management".

In 2016, Empresas Copec and its subsidiaries continued to support civil society organizations with the enhancement of initiatives to assure major improvements in education and the promotion of culture.

At the same time, all the companies strove to support and promote the economic and social development of the communities around their operations by means of housing, enterprise promotion and shared value project programs.

Community investment	2015	2016	
	Thuss	Thuss	
Arauco	12,000	13,000	
Empresas Copec	2,910	2,898	
Terpel	1,761	1,970	
Abastible	N.I.	537	
Orizon	20	58	

8.1 Contribution to **social development**

G4-EC7/G4-SO1

Ongoing and transparent dialogue with the neighbors of the productive facilities enables the company to detect and minimize the possible negative impacts of operations and find ways of increasing the contribution to local development.

ARAUCO'S HOUSING PLAN

The aim of Arauco's local development strategy is to make a contribution to the development of local communities with programs that generate shared value based on a model of dialogue and participation. The programs and participatory opportunities are put in place, analyzed and managed by the application of the Local Reputation Index in priority communities.

Arauco's housing plan is an initiative to provide a definitive housing solution for company, contractor company and related service workers and for neighbors who live around its commercial and industrial operations. Arauco helps beneficiaries with technical support with applications for public subsidies, financial assistance for the hiring of experts

to develop projects, and participates in the search for and technical assessment of lands for housing purposes. The company also seeks to develop initiatives of collaboration and partnership with public and private bodies with the same purpose.

With this program, the company aims to help with the development of housing neighborhoods with a good location, connectivity and top quality houses, which can be financed by means of public housing policies. This is with the objective of executing them in a period of no more than three years from the start to delivery. To develop the types of houses, Arauco has a partnership with Elemental³², headed by the architect Alejandro Aravena, a recent winner of the Pritzker Architecture Prize.

With this office, the aim is to innovate and develop new houses, which are designed jointly with the families themselves who are going to live in them. The idea is also for them to be part of a neighborhood that favors relations with community members. Each neighborhood generally includes

³² Elemental is a do tank developed jointly by Copec, the Catholic University and a group of professionals, with the aim of reducing poverty and improving the quality of life of families, with urban projects of public interest and a social impact. To date, it has developed social housing projects in Antofagasta, Concepción, Copiapó, Iquique, Rancagua, Santiago, Temuco, Tocopilla, Valparaíso, Valdivia and Yungay, besides Mexico and Switzerland.

games, green areas, a social center, a multipurpose sports court and a facility area, to which other services like daycare centers can be added.

The products used to build the houses include the use of wood and materials that provide direct benefits for owners, like greater insulation and seismic resistance, good duration and low maintenance, among other features. These houses are designed considering future expansion, i.e., they can be adapted depending on owners' needs.

The company has built 1,391 houses to date and 184 are under construction, distributed in the towns of Curanilahue, Yungay, San José de la Mariquina, Constitución and Los Álamos. It is estimated that in 2017 the second stage will end in Constitución and further neighborhoods are being planned at Arauco, Curanilahue, Ránquil, Treguaco, Coelemu, Collipulli and Lota. The objective is to build an average of 500 houses a year.

MASTER SUSTAINABLE RECONSTRUCTION PLAN (PRES) FOR CONSTITUCIÓN

Due to the effects of the earthquake and tsunami that lashed the center and south of Chile on February 27, 2010, the Municipality of Constitución, the Housing and Town Planning Ministry and Arauco signed a public and private partnership to develop the PRES for the city of Constitución.

The aim of this plan was to project a city with a future vision, which recovers the relationship with its geography to impact the quality of life and enhance the co-existence of industry and tourism.

Since signing the agreement, Arauco has driven various initiatives envisaged in the plan, and to date over 75% have been completed or are in the implementation stage. These include the Municipal Library, the Mutrún stadium, the cultural center, the nautical dock, the Enrique Donn Müller School for 900 pupils, the fire station of the first company of firefighters and a stretch of the Echeverría promenade, among others. The heated swimming pool project, which will take advantage of the residual heat from the wood pulp mill, has 80% progress and is expected to be completed in 2017.

PROMOTION OF THE ITATA RIVER VALLEY

The Cucha Cucha hacienda is land of over 2,000 hectares in the Itata river valley, Biobío region, and a symbol of the long history of Chilean wine. In 2006, the Arauco group bought the land, starting a new stage in the history of the hacienda, and implemented a shared value program there to develop the local wine making surroundings and convert the zone into an area renowned worldwide for its wines and tourism. The company started to work with small producers to help them grow in their traditional activity, at the same time rescuing the grapevines that gave rise to Chilean wine. In districts like Chillán, Quillón, Ránguil, Portezuelo, Trehuaco and Coelemu, 8,900 hectares of vineyards are harvested a year by more than 5,500 families who work in the sector, i.e., just over one and half hectares per producer. The challenge set by Arauco was to support those communities to improve the quality of the grapevine stock, increase the options in the market and boost the valley as a whole. Some of those wines are already being marketed at "Alma del Itata", a store three kilometers from Cucha Cucha where small producers offer their musts in perfectly labelled and presented bottles.

The Cucha Cucha hacienda has now become a benchmark for quality winemaking and an area available to small local producers, with the objective of sharing good practice and helping to consolidate a winemaking development hub in the area.

LEBU FISH

Due to the earthquake on February 27, 2010, the Japanese Red Cross visited the areas hit by it to help with production promotion projects and improve the conditions of this ravaged area. The women baiters in the Lebu area (Biobío region) saw a business opportunity and designed a project "generated by women to benefit women" with the aim of gaining access to financing. In 2015, the women baiters contacted Orizon to learn about details of how to manage a company and the implications of operating a cuttlefish processor. Orizon provided support with the design of the productive layout and the definition of the operation flows, along with securing authorization from Servicio Nacional de Pesca (Chile's Directorate of Fisheries). Orizon also trained the personnel of Lebu Fish at its facilities and at the new plant to help them gain skills and good manufacturing practice.

In July 2016, the Lebu Fish seafood processing plant was inaugurated, where women, belonging to the Lebu Baiters' Committee comprising six trade unions of people, work to bait and untangle the cuttlefish and other seafood product nets. At the plant they fillet and clean the fish to obtain a semi-processed product, which Orizon receives for molding and freezing, incorporating it to the production line and marketing and using the same logistical chain of the organization.

The production of the Lebu Fish plant is thereby added to that of Orizon in a shared value process in which the company includes the community, promotes local development and employability in the area.

RECONCILIATION PROGRAM

"Restoring dreams" is Terpel's program which for four years has promoted reconciliation in Colombia by hiring and awareness building in society on these issues. By means of productive projects, voluntary work with former fighters, labor incorporation initiatives, labor practices and enterprise support, Terpel, in partnership with the Colombian Agency for Reintegration (ACR), has proactively committed to the reconciliation and post-conflict process the country is undergoing.

In 2016, the focus was mainly on hiring people who had returned, financing productive projects, promoting commercial fairs (in which reintegrated entrepreneurs offered their products and improved their income), and voluntary work days, which promote reflection on and dialogue about reconciliation from classrooms.

ACERCAREDES 33

This is a network of hubs, areas equipped for coworking and connectivity, located in territories far away from the main

urban centers. Their objective is to offer a quality work and meeting space which promotes associativity among local entrepreneurs and technical and productive, trade, cultural, academic, corporate and commercial bodies to accelerate associative innovation and enterprise processes that can have a large impact on development. The network attends 13,800 users at the hubs in Constitución, Curanilahue and San José de la Mariquina.

The foundation was born in 2011 in Arauco's social innovation area, and as of 2014 its structure is an autonomous foundation in which Arauco participates as a partner and part of the board, along with other local and national players.

ROOTS PROJECT: RESCUING THE LOCAL IDENTITY

The objective of the Roots project was to enhance service station bonds with the surroundings, i.e., nature, cultural expressions and the people who live in each place of Chilean territory where Copec is present.

This project was inspired by the promotion of internal tourism, inviting travelers to even make a detour on their routes to discover those small wonders hidden in every place. This initiative includes Pronto highway stores incorporating green walls, adorned with typical materials of each area, like stones, railroad sleepers, wicker, rustic planks or colored flowers. Inside the store, a digital wall shows videos of the most important tourist attractions in the area, weather information and distances from nearby towns; a side panel shows a map complementing the tourist information of the area.

In 2016, the company added Roots to three new service stations and closed the year with a total of 21 refurbished facilities, in turn renewing the content of the tourist videos.

³³ http://acercaredes.org

8.2 Community engagement and participation /

G4-HR8

Long-term relations between companies and their communities require the establishment of permanent and transparent dialogue mechanisms.

In Chile, and with this philosophy, Arauco designed a community participation and consultation manual, which envisages participative survey processes and participative management for each of the forestry projects with the aim of creating trusting and long-term relations. As part of the execution of forestry operations, in 2016 the company held 316 participation and consultation processes, in which over 2,400 people participated. In turn, it held 10 meetings with interested parties to review in situ issues of interest to them like forest wildfires, management of basins, forest harvesting, among others. In Argentina, after two years of work Forestry Dialogue held 9 plenary meetings and reached 42 agreements entailing management improvements and contributions to the collective knowledge of the region.

As a company policy, Orizon seeks to forge and maintain close contact with the community and its surroundings. Regarding this, in 2016 it continued with the programs to support the development of communities around its operations, identifying shared interests and supporting various initiatives to build dialogue and make a contribution to education.

The highlights were the company's participation in the Business Hub for the Territorial Sustainability of Coronel, as well as in two work discussion groups: one tripartite discussion group at San Vicente and a discussion group shared with the neighbors' association of the Lo Rojas sector in Coronel.

INDIGENOUS COMMUNITY ENGAGEMENT

With the aim of creating training and employment opportunities for people in Mapuche communities around the company's forestry operations, Arauco has a Mapuche community engagement policy and in 2014 it created the Mapuche local employment stimulus mechanism.

By means of various consultation processes, it designed the program that creates jobs for individuals, or if there are legalized local entrepreneurs, it gives them the opportunity of joining Arauco's service companies. Moreover, with the aim of eliminating entry barriers, it trains people who need it and gives business advice to entrepreneurs, guaranteeing compliance with safety, quality and productivity standards.

The company has successfully implemented the mechanism in the districts of Arauco, Curanilahue, Lebu, Cañete, Contulmo, Los Álamos, Tirúa and Lota. In 2016, four companies owned by people from the Mapuche people were included as Arauco's service suppliers.

Regarding this, it has also boosted Mapuche employment in the implementation of the native forest restoration plan. It should be highlighted that this plan is accompanied by the participative social restoration program, in which the involvement of the Mapuche communities around the restoration areas is key. Moreover, in the implementation of the conservation plans of the high cultural conservation value areas the company has integrated the Mapuche communities, hiring members who have surveyed sites of cultural and/or ceremonial significance. The company has carried out these processes with the Lumaco, Arauco and Contulmo communities.

In the case of Argentina, Arauco engages with the Mbyá Guaraní indigenous communities and, in coordination with government bodies, they undertake activities like agreements on the use of forest resources, material or logistical collaboration and training on the growing of citric fruit and native species orchards to provide vitamins and minerals to their daily diet, generating the synergy of traditional and technical knowledge. The company also encourages them to continue their education with a monthly economic contribution for pupils in five communities through the Alto Paraná Foundation.

8.3 Emergency support /

TERPEL RESPONDS IN EMERGENCIES

After the earthquake of 7.8 magnitude on the Richter scale in April 2016 in Ecuador, Terpel provided its support by donating fuel to the Colombian Civil Air Patrol. Likewise, the company launched a fast campaign to locate 100% of the workers giving them medical and food supplies. It also immediately verified that there was no contamination of natural resources, reviewing the tanks and piping of the service stations affected.



8.4 Commitment and contribution **to quality education** /

ARAUCO EDUCATIONAL FOUNDATION 34

Ever since 1989, the aim of the Arauco Educational Foundation has been to educate and provide better development opportunities for children and youngsters in the districts of Maule, Biobío and Los Ríos. With the focus on implementing teacher training programs that aim to give pupils a quality education and greater access to culture, the Foundation has held programs in 34 districts, benefiting over 575 schools and 5,100 teachers, who each year teach around 100,000 pupils.

To implement the teacher training programs, the Foundation has entered into public and private partnerships with the Ministry of Education and municipalities, carrying out work in which all the players involved make a contribution.

The Foundation has also contributed to the country's cultural development, publishing 19 books, 20 studies and 18 articles. Arauco's directors participate actively in the management of the Foundation

The subsidiary Arauco directly manages the Arauco,
Constitución and Cholguán schools, which have been
renowned nationwide for their performance and academic
excellence.

ENSEÑA CHILE

Enseña Chile is a non-profit organization, comprising around one thousand people who work to enhance the learning of highly vulnerable pupils in Chile. The mission of the organization is to select and train young professionals who

³⁴ www.fundacionarauco.cl

want to dedicate their first working years to teaching in vulnerable schools to build a network of change agents who can have a positive impact on the Chilean education system, firstly from experience in the classroom and then from different sectors.

To date, Enseña Chile has supported more than 60,000 pupils at 106 schools in the Aysén, Biobío, La Araucanía, Los Ríos, Los Lagos, Metropolitan, Tarapacá and Valparaíso regions.

Funding comes from public and private organizations. Since 2009, Empresas Copec has become a strategic partner of this initiative, with the aim of helping so more pupils in Chile can develop their skills and attain their dreams, thereby reducing the inequality of education in the country.

BELÉN EDUCA FOUNDATION 35

LThe main objective of the Belén Educa Foundation is to offer quality education to children and youngsters from poor sectors in the Metropolitan region, permanently motivating the commitment of the families to the education of their children. It has 12 schools in vulnerable districts and over 13,000 pupils.

The company and its subsidiaries support the Foundation with financial resources and active participation in various initiatives, like the tutor program. The aim of this program is for executives to transmit to pupils in fourth grade of secondary education the importance of continuing their studies and becoming good professionals.

Another highlight is the Master Talks, in which company executives visit a school of the Foundation to talk to and guide secondary education pupils about choosing a professional career.

Moreover, Empresas Copec collaborates with the award of the Anacleto Angelini Fabbri Scholarship, given each year to the most outstanding pupil in each school to finance all their studies at a technical training center or professional institute. In 2016, the company commemorated 10 years since the first time it awarded this scholarship.

In 2016, Orizon developed a specific healthy life promotion campaign at the schools of the Foundation.

ARAUCO CAMPUS 36

Arauco's area in the Biobío region has strong competitive advantages in the forestry and wood industry. Nevertheless, the professional technical training in the area was virtually non-existent. It was necessary to have a greater offering of technical higher education careers and training programs to meet such needs, thereby generating large development opportunities for people, the region and country, particularly for Arauco's workers and youngsters in this area.

The outcome of this work jointly with the Municipality of Arauco, the regional authorities, the company Arauco and Duoc UC, and considering the high degree of technical expertise for the industrial sectors in the region, was the Arauco Campus that was inaugurated in 2016. This is the first large project in Chile that integrates technical and professional higher education to the private company.

Its aim is to provide education of excellence with an educational model that combines practical training in the workplace with the generation of alternative professional and technical training alternatives.

In addition to the technical careers given under the dual education model, it is a training center for some of the training programs for Arauco's workers, targeted at continuous training, the development of a career and broadening of their labor market.

In 2016, it opened for 209 students on careers of financial management, risk prevention technician, electromechanical maintenance technician majoring

³⁵ www.beleneduca.cl

³⁶ www.duoc.cl/sedes/sede-campus-arauco



in industry, and electricity and industrial automation technician. The establishment, which entailed an investment of US\$ 8.5 million, has over 30 expert teachers and 18 assistants.

TERPEL FOUNDATION 37

Promoting education, new ideas, positive leadership, the transformation of surroundings benefiting communities are the aims with which the Terpel Foundation makes progress daily to be a partner on the path towards quality education in Colombia. The five large programs launched by the Terpel Foundation in 31 departments in Colombia (190 municipalities) benefited over 332,000 people in 2016, a 31% increase on 2015.



THE DESIGN FOR CHANGE

program is a global competition of educational

institutions. In Colombia, the Foundation offers this innovative methodology to rectors, teachers and students of official educational institutions in the country. It strives to motivate children and youngsters to express and fulfil their own ideas of how to change the world, transform their surroundings and implement innovative and sustainable solutions for the community problems. 108 projects were developed in 2016 involving more than 96,000 students.

ESCUELAS QUE APRENDEN® (Schools that Learn) is an initiative to bolster the institutional management leadership of schools to improve the effectiveness of the mathematics and language teaching process for children in primary education. The Terpel Foundation collaborates with the training and support in situ of rectors, coordinators, teachers, parents and professionals on topics like leadership, teamwork, institutional improvement plan, pedagogical approaches to develop basic skills in mathematics and language and at schools for parents. In 2016, the program reached 59 schools, closing the year with over 2,000 teachers and 106,000 pupils who benefited.

EL LÍDER EN MÍ® (The Leader in Me) is a program to strengthen leadership, aimed at teachers and professionals of official schools in Colombia. In 2016, 658 teachers and 155 rectors of 81 schools had the possibility of participating in this initiative, financed and executed by the Terpel Foundation.

The main objective of the ¡AVENTURA DE LETRAS! (Humanities Adventure!) program is to equip official schools with school libraries. It also seeks to implement activities that help to encourage children and young students to read. In 2016, it was implemented in three new cities, with a total of six schools and more than 7,800 pupils benefiting.

The Terpel Foundation has designed the education fund MI FUTURO AHORA (My Future Now) to finance up to 80% of the technical, technological and technical-labor education careers of service stations attendants (or their children) of Terpel's PITS program. The fund also gives the beneficiaries psychosocial and economic support until their graduation.

In 2016, 118 new participants joined the program; fuel deliverers, personnel of Terpel's stores and their relatives, located at 74 municipalities throughout the country. 274 students benefited in the year.

³⁷ www.fundacionterpel.org

VIVA LEER 38

The Viva Leer (Long Live Reading) program driven by Copec is aimed at encouraging reading by means of a book collection that is sold directly at service stations, the formation of a network of volunteers within the company, the implementation of a virtual support platform for schools, the family and community, and the donation of 75 school libraries open to the community. In 2016, the company inaugurated the last 15, which will have technical support up to late 2017. This closes a five-year cycle in which the company has implemented 75 libraries from Arica to Punta Arenas, sold 1,744,000 books

and consolidated Copec's commitment of encouraging reading in Chile.

In 2016, Copec evaluated the impact of the libraries built in the first four years of the program. The analysis involved visits to the beneficiary schools and interviews of pupils, their parents and educational workers. The survey reflected the real support of the program: good conservation of the infrastructure at most of the facilities used and children and librarians bonded to their libraries.

8.5 Corporate **voluntary work/**

Terpel promotes the team spirit of employees by creating corporate voluntary work initiatives. In 2016, at consolidated level 514 volunteers participated, who reached over 7,300 beneficiaries with projects undertaken in six cities in the country, by means of facility enhancement sessions, recreational, environmental and reconciliation activities.

The Peruvian Cancer Foundation and homes for patients with cancer received the support of 20 Terpel volunteers by means of four activities they carried out in the year. In the Dominican Republic, Terpel developed Touching Hearts, a new initiative that boosts the social assistance impact in partnership with the Development and Relief Agency (ADRA). To start their first activities, the company's volunteers participated in the physical recovery of the Los Tanquecitos school in the district of La Caleta.

	2015		2016	
	Hours of voluntary work	Volunteers participating	Hours of voluntary work	Volunteers participating
Terpel	2,068	669	1,590	514
Orizon	58	39	51	66
Empresas Copec	30	5	26	4

In Argentina, the "Arauco Voluntary Work" organization arranged the ninth version of the solidary marathon and included a 1-km race for pupils at primary schools and another 3-km race for secondary school pupils. Due to the support of over 300 volunteers, 160 schools participated and more than 3,000 runners from the whole country participated in the 5-km race.

Orizon has a voluntary work program, in which employees themselves sponsor an institution and undertake facility improvements and assistance. The program also includes activities to clean the coastline and operations related to fishing and its community.

³⁸ www.vivaleercopec.cl



The human talent of those who are part of the organization is the most important resource and in the last few years the company has therefore implemented a series of initiatives to satisfy and develop it. On the other hand, the company has a firm commitment to the safety and occupational health of own workers and those of its contractor companies.

Likewise, Empresas Copec and its subsidiaries strive to generate the right conditions for the development of all their members, promoting work environments based on values like respect and honesty, as well as professional quality, training and teamwork.

9.1 Labor demography /

G4-10 / G4-LA1

For the year ended December 31, 2016, the total headcount of Empresas Copec was 20,315 employees, with women accounting for 19.0%. The total headcount at the close of the year was 0.6% higher than that at the end of 2015 and the number of women increased by 1%.

HEADCOUNT BY TYPE OF CONTRACT

Most of the employees who work for the companies of the group have an indefinite contract, and this trend continued compared to 2015.

Type of contract ^{39,40}	Number of employees 2015	Number of employees 2016	Percentage of the 2016 total		
Fixed-term contract	678	916	4.5%		
Indefinite contract	19,516	19,399	95.5%		

The information given in the table below and in the rest of the chapter excludes fixed-term contract workers.

HEADCOUNT BY COMPANY

		2015			% change		
COMPANY	Women	Men	Total headcount	Women	Men	Total headcount	2015-2016
Arauco	1,826	12,922	14,748	1,675	12,564	14,239	(3.5%)
Terpel	878	1,309	2,187	1,027	1,450	2,477	13.3%
Abastible	246	849	1.095	264	884	1,148	4.8%
Orizon	100	435	535	112	490	602	12.5%
Copec	257	669	926	255	650	905	(2.3%)
Empresas Copec	7	18	25	7	21	28	12.0%
General total	3,314	16,202	19,516	3,340	16,059	19,399	0.6%

³⁹ Abastible and Copec only include their employees in Chile.

⁴º Arauco: No information was available on the type of contract so 100% of the employees were considered to be on an indefinite contract.

HEADCOUNT BY COUNTRY 41

Empresas Copec and its subsidiaries generate employment in different parts of the world.

Abastible had the largest headcount increase 2015 through 2016, doubling the number of employees due the purchase of the Solgas and Duragas brands from the multinational Repsol in Peru and Ecuador, respectively. The large growth of Terpel's headcount was due to new hirings made in Peru, the Dominican Republic, Panama and Colombia.

CONTRACTOR WORKERS

At the close of 2016, the companies of Empresas Copec had 23,440 contractor workers, which was higher than the hired personnel.

COMPANY	2015	2016
Arauco	21,041	22,165
Abastible	782	863
Orizon	516	412
Total contractor workers	22,339	23,440

In the case of Arauco, the contracts in force with contractor companies particularly correspond to the forestry business. The company gives priority to those companies that stand out for their safety, competitiveness, professionalism and commitment.

Likewise, Arauco offers contractor companies that provide it services programs aimed at raising the competitiveness of their services and assuring the development of its operations safely and productively, making available training sessions and dissemination of labor rights and obligations, an 800 hotline to directly raise concerns, make whistleblowing reports or complaints, and remedial education programs.

Arauco guarantees the wellbeing of contractor workers, demanding that contractor companies pay higher wages than the legal minimum in Chile and provide life insurance for all its workers that provide services at the company's plants, facilities and operations.

NORTH AMERICA 6.4% MEXICO 0.9% DOMINICAN REPUBLIC PANAMA C 4,6% COLOMBIA 6.7% ECUADOR 0.3% PERU BRAZIL 2.0% TOTAL 9.9% **ENDOWMENT** 2016 ARGENTINA 7.8% 19,399 **VARIATION** 0.6%

 $^{^{\}scriptscriptstyle 41}$ In the rest of the chapter Copec and Abastible only include their employees in Chile.

9.2 Diversity /

G4-EC5 / G4-LA12 / G4-HR3

The Code of Ethics of Empresas Copec clearly establishes the corporate position on diversity: the company respects the dignity of people, rejecting any discrimination based on race, religion, gender, age, sexual orientation, nationality, marital status, disability, etc. This applies to its employees and applicants for new jobs.

Arbitrary discrimination shall not be part of the recruitment and hiring processes, or of the definition of employment terms and conditions (such as tasks to be performed, training, remuneration, benefits, promotion, transfer and internal discipline).

To guarantee full compliance with this commitment, the company at consolidated level and each one of the

subsidiaries in particular have made available to employees efficient hotlines for their whistleblowing reports, guaranteeing protection of the whistleblower's identity.

Diversity has an increasingly more prominent place in the companies of the group. In 2016 and for the first time, talks were given to members of the boards of the group's companies on diversity and inclusion, with this being the first step to develop specific programs in this area.

As of 2016, the company started to consolidate group information on diversity in the different jobs. Women filling management positions increased 4%.

		2015		2016
Job category	% Women	% Men	% Women	% Men
Managers	12%	88%	16%	84%
Other employees	13%	87%	15%	85%
Professionals and technicians	25%	75%	25%	75%
General total	17%	83%	17%	83%

Age Range ⁴²	Employees 2015	Employees 2016	Relative Impact 2016
Younger than 30 years	3,766	3,710	21%
Employees of 30 to 40 years	7,287	7,392	37%
Older than 40 years	8,463	8,297	42%
General total	19,516	19,399	100%

Each one of the companies promotes equal opportunity and rejects any kind of discrimination. In Chile, Arauco's Trupán Cholguán mill reached an agreement in 2016 to incorporate pupils doing their practice from the A-17 High School of Yungay. It also worked on a project with Aramark to hire people with cognitive disability and signed a partnership with the Municipal Labor Inclusion Office of Quillón.

In Brazil, Arauco has 69 workers with some varying degree of disability who work in different activities, respecting their individuality and limitations to further the development of each of them.

As part of its commitment to inclusion, Terpel entered into a partnership with the Best Buddies Foundation to broaden the work opportunities of people with disability. In Colombia, Terpel has four employees with disability. The company also signed an agreement supporting the First 40,000 Jobs program driven by the Colombian government, which gives youngsters of 18 to 28 years and with no work experience the opportunity to gain this experience in a real working environment.

None of the subsidiaries of Empresas Copec pay any of their employees wages below the minimum wage in Chile in each of the countries where it operates.

⁴² The data by age for Arauco was calculated as an estimate based on the percentage of women, as the company has no information about this.

9.3 Employee turnover and internal mobility /

Company	Employee turnover rate in 2016 43
Terpel	15.1%
Empresas Copec	10.7%
Abastible	5.4%
Copec	5.0%
Orizon	4.5%
Arauco	(0.6%)
TOTAL	2.0%

The consolidated employee turnover rate was 2% in 2016.

Seeking a simpler organization for management, one that is more efficient with the focus on the value it provides, and for it to be more sustainable, in 2016 Arauco launched the Simple, Efficient and Sustainable (SES) project. The first part of the project entailed simplification of the organization, consolidation and centralization of functions, elimination of duplicated tasks and supervisions or those that added little value, and reduction of external personnel. The changes entailed the departure of about 9% of the headcount. As this initiative involved company people, it strived to do this with great care, informing of the start, progress and end of the project with workers and a special exit plan that considered a labor reinsertion program.

Considering the rest of the companies of the group, about 53% of the departures arose from resignations, retirement or voluntary withdrawal.

In 2016, Copec developed a voluntary and free retirement support program, aimed at thoroughly advising and guiding employees who are 5 years away from their retirement. It gives employees tools so they can plan and make decisions timely to project their future. These include an individual report on financial and social security planning, counseling on the selection of types of pension, and support with the related paperwork.



Regarding internal mobility, Empresas Copec and its subsidiaries promote and support employee interest in seeking better professional development opportunities within the company. For vacant job positions the company gives priority to internal recruitment, and it promoted 1,008 employees in 2016.

⁴³ Employee turnover rate = (hirings in 2016–dismissals in 2016)/headcount at the close of 2016.

9.4 Occupational **health and safety** /

G4-LA5/G4-LA6/G4-LA8

A permanent company objective is to safeguard the occupational health and safety of its workers, striving to continually and steadily reduce the risks of operations.

Last year, it therefore implemented good practice at each of the companies, considering the particular risks to which they are exposed.

Subsidiary ⁴⁴	N° of lost-time accidents		N° of days lost from lost-time accidents		Accident r	ate	Loss rate	
	2015	2016	2015	2016	2015	2016	2015	2016
Orizon	41	62	901	577	3.1%	4.1%	67.5%	38.3%
Abastible	30	40	239	253	2.6%	3.3%	34.0%	71.2%
Copec	3	6	91	78	0.3%	0.6%	10.2%	12.4%

Due to the strategic importance this issue has gained in the company at Orizon and Abastible, it created specific assistant managements in charge of work safety. In the case of Orizon and after a diagnosis and assessment made by environmental, occupational health and safety assistant managements, it defined a work plan and program with an approach focused on four areas: conduct, leadership, learning and preventive culture. During the year, the assistant management's work was to reduce the severity rate and drive a risk management system based on the critical aspects.

With the aim of attaining results of excellence, Arauco defined six focus action areas for safety, in which one of the key factors is active leadership by the company's leaders. The focus areas concern worker involvement, improvement of the risk matrices, management of the high potential incident (HPI) indexes and the implementation of inspection and observation improvements. On the other hand, the aim is to boost the Joint Management-Worker Hygiene and Safety Committees and assure compliance with the corporate operating standards (EOC). With this approach, in 2016 Arauco reduced its accident frequency index⁴⁵ by 0.7%, and its severity rate 1⁴⁶ by 10%, and its severity rate 2 increased 7%. In 2016, 7 facilities had world-class accident frequency and severity rates.

INDEX OF FREQUENCY OF ACCIDENTS BY BUSINESS AND COUNTRY

	Forestry	Pulp	Wood	Consolidated
Chile	6.1	4.4	6.0	5.4
Argentina	3.2	5.8	4.5	4.1
Brazil	1.9	-	1.2	1.3
North America	-	-	0.8	0.8
Consolidated	5.5	4.6	4.7	4.7

Another highlight in the year was maintaining integrated management system certification in Chile according to ISO 14001 and OHSAS 18001, after Lloyds completed its inspection audit.

It is also worth highlighting the implementation in Chile and Argentina of the open innovation challenge through the Dare to Innovate on Safety program, which aims to drive the search for opportunities of improvement, promoting involvement and generating teamwork. Over 403 ideas were presented and more than 6,000 people were involved through the voting platform.

⁴⁴ Only Chile

⁴⁵ Number of workers injured with disability (with one working day lost as a minimum) per million hours worked by all the personnel.

⁴⁶ Number of days lost of workers injured per million hours worked by all the personnel throughout the period considered.

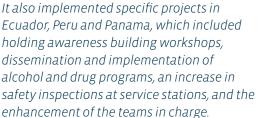
Throughout Chile, Copec manages a complex distribution chain in which the health, safety and environmental (HSE) management system plays a key role to guarantee the safe supply 24/7 to its thousands of customers. The steady, permanent and transversal effort of the entire organization for an operation with better safety standards has paid off, with the company ending 2016 with the following figures:

·Out of a total of 76,886,209 kilometers traveled, there were 34 accidents (AMIK⁴⁷ accident rate: 0.44 accidents per million kilometers traveled, which is comparable with the AMIK of 0.36 attained in 2015).

• The average incident rate at plants was 0.011 per million liters, against a rate of 0.012 in 2015. One of the main actions implemented was the redesign of the safety program based on critical focal points.

Some of the most important worker safety initiatives were the development of a monthly training talk program for fuel truck drivers on issues like safe driving, drowsiness and fatigue. Moreover, on the Transcom trucks the subsidiary Copec started to install a system of panic buttons: in an emergency, the driver presses the device that sends an alarm by email; if the driver does not answer the call from the monitoring center, an alert is immediately sent to the head of the respective fleet. Transcom attained a level of excellence in the certified company program (CCP) of the Workers' Safety Association.

Terpel maintained certification of its health, safety, environmental and quality (HSEQ) system in all countries where it operates.





In 2016, Arauco in Chile regretted the work accident deaths of a contractor work who provided air services and a chainsaw contractor, both providing services to Forestal Arauco. Terpel also regretted two fatalities in 2016: a driver in Colombia who died when running off the road whilst driving his motor fuel oil truck, and a female employee in Panama who died in an attack on a gas station where she worked.

OCCUPATIONAL HEALTH

Arauco aims to comply with the occupational health regulation for all processes, generate work health conditions for the high performance of workers and promote operations free of sick people and healthy workers and a healthy culture encouraging a healthy lifestyle. To control the main health risks, it conducts environmental assessments, implements controls and submits workers to epidemiological screening programs.

In 2016 in Chile, the company made large progress with the certification process in accordance with the Management-Worker Hygiene and Safety Committees (CPHS) management model, in which 28 committees attained the maximum certification. It also held the V Annual Meeting of Arauco's Management-Worker Committees attended by over 200 workers.

Copec implemented an initiative called *Pura Energia* (Pure Energy) in 2013, which with the support of the Institute of Nutrition and Food Technology (INTA) aims to encourage certain habits of healthy eating, physical activity, healthy self-care among Copec's employees. In 2016, it enhanced the *Pura Energía* brand by giving tips on a healthy life through the internal communication channels.

^{(&}lt;del>4)

⁴⁷ Amik: accidents per million kilometers.

9.5 Human rights and **freedom of association /**

G4-11/G4-LA4/G4-HR4/G4-HR5/G4-HR6

One of the modifications made to the Code of Ethics of Empresas Copec in 2016 was the addition of a specific clause rejecting all forms of child labor and the corporate

commitment to strictly comply with the legal regulations on freedom of association.

The subsidiary Terpel has a human rights policy⁴⁸, which establishes the guidelines on respect and promotion in all acts and relations with Terpel's stakeholders and which it applies to each of its suppliers. Besides reviewing such policy, in 2016 the company made progress with a diagnosis before implementing a human rights due diligence process. In such exercise it identified the main risks of breaching human rights or particular threats, and assessed the company's whistleblowing mechanisms. As a result of the exercise, it concluded that the company has no critical risks of breaching human rights. To such effect, in 2017 it will draw up action plans to prevent real and potential human rights impacts in the value chain, giving priority to truck drivers and indirect employees of its own network of service stations.

The development of harmonious relations with trade union organizations in each country is a common value shared by all the companies of the group. One of the main

bargaining instruments are the collective bargaining agreements that cover a large percentage of employees.

	N° of signatory employees in 2015	Percentage of the total	N° of signatory employees in 2016	Percentage of the total
Orizon	167	31%	162	27%
Copec	903	98%	900	99%
Abastible	1,166	100%	1,221	100%
Terpel ⁴⁹	1,830	94%	2,047	94%

Good union relations is evident in the percentage of unionized workers at consolidated level, which was 47% in 2016, 7% higher than the previous year. In 2016, there were collective bargaining processes at Orizon, Copec and Terpel in Colombia.

Unionized workers		201	.5	2016			
	N° of unions	N° of unionized workers 2015	% unionization 2015	N° of unionized workers 2016	% unionization 2016		
Terpel Colombia	1	39	3%	49	4%		
Terpel Mexico	1	56	37%	65	38%		
Orizon	3	239	45%	267	44%		
Copec	3	442	48%	479	53%		
Abastible	5	698	64%	712	62%		
Arauco Argentina	4	726	46%	739	49%		
Arauco Brazil	5	192	10%	1,930	100%		
Arauco Chile	25	5,338	58%	4,917	54%		
TOTAL	47	7,731	40%	9,158	47%		

⁴⁹ Aligned with the main international human rights instruments: Universal Declaration of Human Rights, International Labour

 $Organization (ILO) \, Declaration \, on \, Fundamental \, Principles \, and \, Rights \, at \, Work, \, UN \, Global \, Compact's \, Principles \, and \, the \, UN \, Guiding \, Principles \, on \, Business \, and \, Human \, Rights \, at \, Work, \, UN \, Global \, Compact's \, Principles \, and \, the \, UN \, Guiding \, Principles \, on \, Business \, and \, Human \, Rights \, at \, Work, \, UN \, Global \, Compact's \, Principles \, and \, the \, UN \, Guiding \, Principles \, on \, Business \, and \, Human \, Rights \, at \, Work, \, UN \, Global \, Compact's \, Principles \, and \, Compact's \, Principles \, Principles \, Compact's \, Principles \, Principles \, Principles \, Principles \, Principles \, Compact's \, Principles \, Principle$

⁴⁹ Only includes workers in Colombia and Panama.

9.6 Employee development /

G4-LA11 / G4-LA9

With the aim of attaining the comprehensive development of each of the employees, companies have implemented various initiatives. The most important specific progress in the career training and development area is outlined below.

PERFORMANCE EVALUATION

One of the factors of progress with employee growth is the 51% increase in the number of people who were

subject to some performance evaluation process, with the total employees of the group rising from 37% to 56%. Every year more people are evaluated, giving the company fresh occasions of providing feedback and guidance to employees and identifying internal mobility or growth opportunities, retaining talent and detecting potential training needs. The systemized data from the performance evaluation is an input that is considered in the succession plans and the salary review processes.

		2015							20	16		
	Wom	ien	Me	n	Tota	վ	Won	nen	Men		Total	
	N°	%	Nº	%	Nº	%	Nº	%	N°	%	Nº	%
Copec ⁵⁰	209	81%	615	92%	824	89%	252	99%	635	98%	887	98%
Abastible ⁵¹	41	17%	153	18%	194	18%	41	16%	159	18%	200	22 %
Terpel	351	40%	403	31%	754	34%	761	74%	781	54%	1,542	62%
Empresas Copec	3	43%	15	83%	18	72%	2	29%	10	48%	12	43%
Arauco	NA ⁵²	NA	NA	NA	5,378	36%	NA	NA	NA	NA	8,213	58%
Total Employees					7,168	37%					10,854	56%

In the last few years, Arauco has worked to enhance performance management as the core process in the development of the company's employees. The company conducts the performance evaluation with an instrument that aligns the desired employee competencies and conduct with the corporate values, and which also determines compliance with the individual objectives and targets. In Chile, in 2016 the coverage of the performance management process was increased to employees of the general payroll (technicians and operators).

In the last two years, Abastible has conducted a 360° competency evaluation process, exceeding 20% of the workforce in 2016.

With the participation of virtually the whole company, in 2016 Copec conducted the fifth competency evaluation

under the Grow program. The main objective was to promote feedback among teams by means of online self-evaluations of employees and the subsequent evaluation by their heads. Based on that data, action plans were designed that involved 85% of the personnel.

Terpel also made a great effort to enhance the performance evaluation process. The company generates individual and team action plans from this process. In Colombia, the company attained 89.2% coverage of the workforce and in Ecuador will be implement the first evaluation in 2017. For the first time, the company conducted the 360° evaluation with 100% of the operation employees in the Dominican Republic.

The performance management system is under development at Orizon.

⁵⁰ Only information on Chile is given.

⁵¹ Only information on Chile is given.

⁵² NA: No information available broken down by gender.

TRAINING

		2015				2016			
SUBSIDIARY	% of employees trained	N° of training hours	Average training hours	Average expense per worker	% of employees trained	N° of training hours	Average training hours	Average expense per worker	
Arauco	61%	377,303	42	ND	56%	286,156	36	462	
Copec	83%	46,785	61	1,163	81%	36,523	50	1,191	
Terpel	100%	15,764	7	76	100%	22,392	8	77	
Orizon	77%	41,117	100	254	92%	61,088	110	234	
Abastible	70%	26,739	35	282	90%	70,496	68	486	
Empresas Copec	80%	442	22	4,663	100%	338	12	4,381	
Total	67%	508,150	39	345	68%	476,993	36	419	

On average, each employee of Empresas Copec and its subsidiaries received 36 hours of training in 2016 (6% less than in 2015), and the average expense for the company was US\$ 419 per employee. The company is interested in driving the growth and development of its employees and it will keep up efforts in this area.

Empresas Copec and its subsidiaries permanently promotes the growth of its employees with various training and development programs, which help to build teams of excellence that are ready to address the challenges of an increasingly more demanding and competitive industry⁵³.



The training highlight for the forestry company was the inauguration of the Arauco Campus with the DUOC UC. Besides giving technical careers, it is a training center for some of the company employee training programs. On this campus there are also workers who participate in the training process by giving students their knowledge and experience.⁵²

One of the large training novelties at Copec in 2016 was the implementation of the commercial leadership program. Targeted at heads in the commercial area, its objective was to enhance the leadership and customer focus competencies. This process was undertaken by means of personalized coaching, which included individual interventions, in teams and onsite during visits to customers. During the year, 31 commercial managers, assistant managers and heads participated.

Copec also has a corporate training program, prepared and updated based on the results of the Grow program. The novelty in 2016 was the inclusion of the organizational competencies program, which includes a wide variety of courses, such as innovation, service culture, accountability, among other topics. Another program highlight was operational training focused on the fuel plants. At the close of 2016, the company had given 340 courses as part of the corporate training program, a large increase on 2015.

⁵³ Further information on the Arauco Duoc UC training center can be found in the Sustainable Coexistence chapter, page 63.



10. About **the Report**

 $\mathsf{G4} \cdot 13 \, / \, \mathsf{G4} \cdot 18 \, / \, \mathsf{G4} \cdot 19 \, / \, \mathsf{G4} \cdot 20 \, / \, \mathsf{G4} \cdot 21 \, / \, \mathsf{G4} \cdot 22 \, / \, \mathsf{G4} \cdot 23 \, / \, \mathsf{G4} \cdot 28 \, / \, \mathsf{G4} \cdot 29 \, / \, \mathsf{G4} \cdot 30 \, / \, \mathsf{G4} \cdot 31 \, / \, \mathsf{G4} \cdot 32 \, / \, \mathsf{G4} \cdot 33 \, / \, \mathsf{G4} \cdot 31 \, / \, \mathsf{G4} \cdot 32 \, / \, \mathsf{G4} \cdot 31 \, / \, \mathsf{G4} \cdot 32 \, / \, \mathsf{G4$

10.1 PROCESS DESCRIPTION

The second sustainability report of Empresas Copec was drawn up considering the methodology of the Global Reporting Initiative G4 guidelines, once again adopting the essential approach.

This report shows the events, results and economic, environmental and social impacts January 1 through December 31, 2016. It also provides information from 2015 for comparison. Unless indicated otherwise, the company has not changed the calculation methods compared to the previous report, or the subsidiaries included in the report.

This report provides an account of the performance of Empresas Copec and its subsidiaries Arauco, Copec, Abastible and Orizon (i.e., those companies of which the Company owns more than 50%). The report shows particular information by company or consolidated information whenever possible 54. The companies are in different stages of maturity regarding the monitoring of sustainability indicators, so it indicates for each aspect the degree of coverage of the data presented.

MATERIALITY PROCESS

To define the material aspects the company carried out a series of activities with the conclusions in the materiality matrix shown in this chapter. The main sources used were interviews of the senior managers of Empresas Copec, and of the managers of the subsidiaries included in the report. With them, the reporting team identified the most significant milestones and aspects in each of the companies in the year. (Internal analysis).

The company considered the concerns, questionnaires and queries raised by one of its leading stakeholders, i.e., investors and market analysts. To this list of issues it added those presented in the local press for each of the companies. (External analysis). It thereby compiled the following matrix that particularly includes the identification of "why" each aspect is material.

⁵⁴ US\$ (12/31/2016) = 669.47 Chilean pesos.

RELEVANT ASPECTS	RELEVANCE	EMPRESAS COPEC	ARAUCO	COPEC	TERPEL	ABASTIBLE	ORIZON
INNOVATION	HIGH	Х	Х	Х	Х	Х	Х
CORPORATE GOVERNANCE	HIGH	X	X	Х	Х	Х	Χ
CONFLICTS OF INTEREST - FREE COMPETITION	HIGH	Х	Х	Х	Х	Х	Х
RISKS MANAGEMENT	MEDIUM	Х	Х	Х	Х	Х	Х
ETHICAL MANAGEMENT	MEDIUM	X	Х	Х	Х	Х	Х
INVESTOR RELATIONS	HIGH	Х					
EXPANSION AND INTERNACIONALIZATION	HIGH	X	X	Х	Х	Х	Х
CONTRIBUTION TO COUNTRY'S DEVELOPMENT	HIGH	Χ	Х	X	Х	Х	Х
ENVIRONMENTAL MANAGEMENT (GENERAL)	MEDIUM		X	Х	Х		
ENERGY CONSUMPTION	MEDIUM		Х	Х	Х	Х	Х
RENEWABLE ENERGY	MEDIUM		Х	Х		Х	
CLIMATE CHANGE	HIGH	Х	Х	Х	Х		

RELEVANT ASPECTS	RELEVANCE	EMPRESAS COPEC	ARAUCO	COPEC	TERPEL	ABASTIBLE	ORIZON
BIODIVERSITY	MEDIUM		Х				Х
WATER	HIGH		Х				Х
CONTRIBUTION TO COMMUNITY'S EDUCATION	HIGH	Х	Х	Х	Х		
CONTRIBUTION TO SOCIAL DEVELOPMENT	HIGH	Х	Х	Х	Х		Х
COMMUNITY ENGAGEMENT	HIGH		Х		Х		Х
INDIENOUS COMMUNITY ENGAGEMENT	MEDIUM		Х				
CREACIÓN DE EMPLEO	MEDIUM	Х	Х	Х	Х	Х	Х
DIVERSITY	MEDIUM	Х	Х	Х	Х	Х	Х
OCCUPATIONAL HEALTH AND SAFETY	HIGH	Х	Х	Х	Х	Х	Х
HUMAN RIGHTS	MEDIUM	Х			Х		
FREEDOM OF ASSOCIATION	MEDIUM		Х	Х	Х	Х	Х
CUSTOMER SATISFACTION	HIGH			Х	Х	Х	
SERVICE STATION SECURITY	HIGH			Х	Х		

GRI /



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Annex: Main Certifications /



Arauco has a series of certifications for its different businesses. The highlights in the forestry area in 2016 were maintaining the Forest Stewardship Council (FSC®) certification for its operations in Chile and Brazil and recertification according to the International Standardization Organization (ISO) 14.001, Occupational Health and Safety Advisory Services (OHSAS) 18001, CERTFOR and the European Program for the Endorsement of Forest Certification (PEFC) on sustainable forest stewardship. The wood pulp mills gained recertification according to the ISO 9001 and ISO 14001 standards.⁵⁵

Copec's integrated management system is certified according to ISO 9.001, ISO 14.001 and OHSAS 18.001 as is the company's bunkering process. Likewise, the lubricant plant is certified according to ISO 9.001. In 2015, Abastible officially secured triple certification of ISO 9.001, ISO 14.001 and OHSAS 18.001 for bulk fuel supply, storage and distribution processes in the Metropolitan region and for the processes undertaken at head offices.

The commitment to the highest international standards is evident at Terpel Lubricantes, which secured recertification of the integrated management system, and according to the ISO 9.001, ISO 14.001, OSHAS 18.001 and NORSOK standards. 30 of its products were also recertified with Icontec Quality, and its quality control laboratory secured by Colombia's Certification Agency (ONAC) according to the Colombian technical standard NTC SIO / IEC 17.025. Moreover, Terpel Aviación also secured triple recertification and certification according to the NORSOK standard.

Orizon has responsible supply certification (IFFO-RS) at the Coquimbo, Coronel Sur and Coronel Norte plants, and is one of the first plants in Chile to secure this certification. It also has NGO Friend of the Sea - Sustainable Aquaculture certification. The plant in Puerto Montt is certified according to the British Retail Consortium (BRC) on food safety.

⁵⁵ For further information on the certifications of Arauco, see details on its corporate website at www.arauco.cl



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