

**2018 SUSTAINABILITY REPORT** 

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LETTER FROM THE CHIEF EXECUTIVE OFFICER

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# **Letter from**the Chief Executive Officer



"

Empresas Copec decided in 2018 to assume a global commitment to harmonize three core elements: economic growth, social inclusion and environmental protection".

### Dear Fellow Shareholders,

I am pleased to present Empresas Copec's fourth Sustainability Report, which sets out the economic, social, environmental and corporate governance performance of our company and its affiliates during 2018, sharing achievements and challenges in each of these areas.

This document has been prepared under the GRI (Global Reporting Initiative) standards, one of the most commonly used worldwide for sustainability reporting.

For Empresas Copec, the practice of reporting sustainability criteria and progress of its activities began in 2015. This, as a way to deepen ties with our stakeholders and systematize our commitment to a sustainable operational and corporate task. In 2016 we took a new step, introducing the concept of economic value generated and distributed, which allowed us to quantify the company's contribution to the different counterparts, as well as to the economies of the countries where Empresas Copec's subsidiaries operate. In 2017, meanwhile, we consolidated a reporting model that, balancing environmental and social aspects, reflected the company's willingness to create shared value.

Along the path we have travelled over these years, our affiliates have played an increasing role in the great challenges for sustainable development, where global issues such as climate change and energy transition have become urgent tasks. An example of this are the New Mobility solutions developed by Copec; or the growing capacity to self-supply with clean energy from the forestry affiliate, which finds its most recent and significant expression in the Modernization and Extension of Arauco Mill project; among others.

With this look, Empresas Copec decided in 2018 to deepen its commitment to economic growth, social inclusion and environmental protection. Thus, the Company joined international efforts to achieving the United Nations Sustainable Development Goals, SDGs. They were defined in 2015 by 193 Member States as part of a new sustainable development agenda for 2030. This report has incorporated the specific contributions that Empresas Copec and its affiliates are carrying out in this area.

We move forward toward that goal, guided by a shared purpose and driven by the conviction of our people, the people of Empresas Copec, who put their creativity and daily effort at the service of a culture of sustainability. 2018 has been a particularly demanding period with regard to environmental issues. During the year, a total of US\$ 98.4 million was invested in this issues, 6.7% more than in the previous year.

For example, Arauco, whose forest heritage plays the natural role of capturing  $\mathrm{CO}_2$  from the atmosphere and releasing oxygen into the air reducing the carbon footprint, in terms of energy delivered net surpluses for a total of 951 GWh, 6% higher than in 2017, accounting for nearly 1.3% of the total generation of the National Electric System.

Copec, meanwhile, continued to make progress in its Renova program, which seeks to incorporate non-conventional renewable energy and energy efficiency systems in its service stations network. Thus, during 2018, it installed new photovoltaic panels and wind turbines to supply its stations.

Terpel, meanwhile, has undertaken to reduce  $\mathrm{CO}_2$  emissions of its processes at 10% by 2025. In Colombia, the company managed carbon credits with 112 customers, accounting for 11.2 million gallons neutralized per month. And, also in Colombia, Abastible's affiliate Inversiones del Nordeste deployed an energy management system that resulted in 39% reduction in its annual power consumption.

Golden Omega, meanwhile, as part of its commitment to ocean sustainability (SDG 14), launched in 2018 the Zero Plastic Waves campaign, which seeks to mitigate this oceanic pollution in northern Chile by cleaning beaches and raising awareness among the population regarding this issue.

On the other hand, for Empresas Copec and its affiliates, innovation, infrastructure investment and associativity have always been fundamental engines for creating sustainable value (SDG 9 and 17).

Thus, in 2018, Copec took strategic steps in electromobility marking a true turning point in its history, which was synthesized in the signing of the Public-Private Electromobility Agreement, a key milestone at the country level.

Consequently, at the beginning of 2019, it expanded its Copec Voltex charging network for electric vehicles, with 23 fast charging spots, both inside and outside its service stations, in addition to a series of projects to accompany its industrial customers in the gradual process of energy transition.

For its part, the efforts made by Abastible made it worthy of the "Innoweeks" Award, from the SAP innovation center, for its consistent work to advance in the task of identifying and monitoring its cylinders.

For Empresas Copec, in addition, providing support to researchers and entrepreneurs is part of its historical commitment to the country's development. Therefore, it has important alliances, such as the Copec-UC Foundation and the UC Anacleto Angelini Innovation Center, which had more than one hundred partner companies and more than 270 funded projects at the end of 2018.

In terms of investment, 2018 will go down in our history as the year in which Arauco started the MAPA Project, which will increase its production capacity to 2.1 million tons of pulp a year, with cutting-edge equipment and a new effluent treatment plant. An unprecedented effort that implies a strong social and economic push for the territory, with a US\$ 2,350 million investment in the Biobío Region.

Additionally, Arauco began this year the citizen's participation process for the future Viento Sur wind farm, also



In 2018, Copec took strategic steps in electromobility marking a true turning point in its history, which was synthesized in the signing of the Public-Private Electromobility Agreement, a key milestone at the country level". in the Biobío Region, which will involve an investment of around US\$ 250 million to install up to 43 wind turbines with 200 MW installed capacity, enough to power 540 thousand homes.

This process involved 128 meetings with neighborhood councils and mapuches communities, visits to eight schools and three health posts, and 18 communication campaigns with workers, reaching a total of 3,789 people.

Establishing permanent and mutually collaborative relationships with the communities and territories that host our operations (SDG 11) is at the core of our corporate culture. Only in this way the purpose of creating shared value can be authentically fulfilled. That is why US\$ 22.4 million was invested in 2018 for the development of this type of efforts, 5.3% more than in 2017.

On the other hand, improving the lives of people, of communities, is at the basis of true development. And to this end, guaranteeing inclusive, equitable and quality education that promotes opportunities for all (SDG 4) is essential.

For this purpose, Copec, for example, in line with its "Viva Leer" reading promotion program, launched in 2018 its project "Abre un libro, abre tus alas" (Open a book, open your wings), to bring reading closer to people deprived of liberty and their families by donating 346 thousand books

Orizon, meanwhile, signed an important collaboration agreement with the Education and Training Center of the Universidad Católica del Norte, aimed at improving the skills and abilities of its employees, and enhancing the employability of future professional technicians through the development of their internships across the different areas of the company.

Today, companies must have sufficient adaptive capacity and response speed to face the challenges of the environment. Acting strategically in this new global reality implies developing a viable system of relationship with our different stakeholders, a governance structure capable of transforming potential risks into development opportunities.

To this end, affiliated companies increased the number of independent directors in 2018. Thus, for example, Terpel today has a Board of Directors where 25% of its members are independent. Abastible, meanwhile, increased the number of directors to a total of seven, four of which are considered independent.

Similarly, the participation and representation of broad sectors of society in our affiliates is one of the keys to proper understanding the environment. In this sense, Arauco became part of the Inclusive Business Network (REIN, for its Spanish acronym), to encourage the work of people with disabilities. Terpel, within the framework of its "Amigos del Alma" program, links people with disabilities and helps them develop communication skills, leadership and work habits. Abastible, meanwhile, launched its Inclusion and Diversity Policy and put in place a Diversity Program for the inclusion of migrants, people with disabilities and women.

At the end of the second decade of the 21st century, Chile and the world are undergoing profound transformations in all dimensions of human activity.

Our country is getting ready to host two world-class events: the Asia-Pacific Economic Cooperation Forum APEC 2019 and the United Nations Climate Change Conference COP 25. Both meetings will take place in a framework of great consensus: our civilization is challenged by climate change. It is an unavoidable and urgent challenge, of which we must all be a part: citizenship, public bodies and, certainly, private sector.

Each of the efforts outlined in this report, made by the people of Empresas Copec who contributed in them and whom I deeply thank, are our way oh helping to face this challenge. They are an expression of our way of writing a story today that can be told in the future. They are the implementation of ideals that aim to build a reliable future.

EDUARDO NAVARRO Chief Executive Officer Empresas Copec

# 02.

# WE ARE EMPRESAS COPEC

102-1 / 102-2 / 102-3 / 102-4 / 102-5 / 102-6 / 102-7 / 102-11 / 102-12 / 102-16 / 102-40 / 102-42 / 102-44



Empresas Copec is a world class company, with 84 years of experience, that seeks to deliver an attractive level of profitability in the long term to its investors, and contribute to the development of each of the countries where it operates.

The Company is engaged in two major spheres of activity: natural resources, where it has clear competitive advantages, and energy, closely linked to the growth and productive development of the countries. Currently, it has major production platforms in Chile, Germany, Argentina, Brazil, Canada, Colombia, Ecuador, Spain, the United States, Mexico, Panama, Peru, Portugal, the Dominican Republic, South Africa and Uruguay, and sells its products in more than 80 countries on all five continents.

The business model is based on two core tenets: to operate under conditions of operational excellence, ethics and corporate transparency; and to act as good citizens, who address and respect the interests of each of their interest groups.

Empresas Copec is a publicly traded corporation, subject to the supervision of the Financial Market Commission (CMF)<sup>1</sup>. Listed on the Santiago Stock Exchange, it is a member of the SPCLXIPSA<sup>2</sup> in Chile.

The Company was selected to be part of the following international indices that distinguish performance of companies in environmental, social and corporate governance matters: Dow Jones Sustainability Index Chile, Dow Jones Sustainability Index MILA, FTSE4Good Emerging Index and MSCI Sustainability Index.

#### 2.1.1. KEY FIGURES 2018

Income:

US\$ 23,970

Profit:

US\$ 1,071

million

Consolidated number of employees:

† 25,615

† 10,551

Gj of energy consumed:

103,821,135

Hours of training for employees:

784,834

Number of countires where it operates:

16

<sup>&</sup>lt;sup>1</sup> Former SVS or Chilean Superintendence of Securities and Insurance.

<sup>&</sup>lt;sup>2</sup> SPCLXIPSA: Selective Share Price Index. It is the main stock exchange index in Chile and is made up of the 30 most liquid shares in the market.

# 2.2. Corporate principles

### and values



- 1 Contribute to society through the **creation of the maximum value** possible, which **sustainably** benefits shareholders, workers, suppliers, customers and communities where it is inserted, through efficient, responsible, innovative and quality management in all processes.
- 2 Promote the sustainable use of the natural and energy resources of the environment, investing in research, technological innovation and training, to progressively, continuously and systematically prevent and reduce the environmental impacts of activities, products and services.
- 3 Deliver to all customers, in a timely manner, quality products, sustained over time, and encourage suppliers to become part of the value and quality chain.
- 4 Ensure **safety and occupational health**, seeking to continuously and progressively reduce the risks to the safety of its operations and services.
- Generate the conditions for the development of all members of the Company, promoting work environments based on respect, honesty, professional quality, training and teamwork.

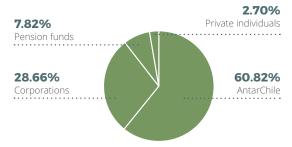
- 6 Build permanent relationships and of **mutual collaboration with the communities** where the operations are located, supporting their development.
- 7 Maintain **transparent and honest communication** with the different players relevant to the Company.
- 8 Comply with current legislation, contractual obligations and other commitments that regulate business and, as far as possible, exceed established standards.
- Deploy and apply systems and procedures that enable to manage business risks, regularly assessing performance in all processes, and taking timely corrective measures as necessary.
- **Disseminate these commitments** to workers, contractors and suppliers, getting this policy implemented with the collaboration and effort of all.
- 11 Work with dedication, rectitude, probity, excellence and be consistent with the values and policies of Empresas Copec.

# 2.3. Empresas Copec

### and its affiliates

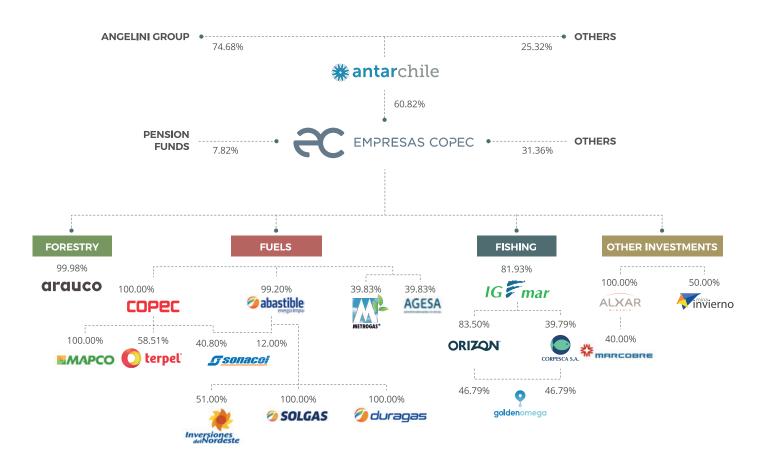
### 2.3.1. Ownership Structure

December 31, 2018



As of December 31, 2018, the Company had 6,857 shareholders and 1,299,853,848 common shares, all of the same value. Meanwhile, the percentage of shares that were not held by the controller reached 39.18%.

#### 2.3.2. CORPORATE GROUP STRUCTURE





### 2.3.3. MAJOR AFFILIATES

www.arauco.cl

Arauco is one of Latin America's leading forestry companies in terms of land area and yield of its plantations, producer of market pulp, wood and panels, and it is also an increasingly important player in the generation of clean and renewable energy. It is characterized by having the highest standards of forest management and responsible management in its operations, seeking to differentiate itself through innovation and generation of added value.

The company offers a wide variety of renewable and quality forest products, which inspire to create solutions aimed at improving the lives of people for the paper, construction, packaging and furniture industry. Its products are sold in all five continents through representatives, sales agents and commercial offices in 26 countries, and an efficient distribution and logistics chain, which allowed to deliver its products through 230 ports in 2018, reaching more than 4,440 customers.

Empresas Copec holds 99.98% ownership in Arauco.



**Hectares of Forestry Heritage:** 

1.1 million

in Chile

263 thousand

in Argentina

249 thousand

in Brazil

126 thousand

in Uruguay



Pulp mills:

5 mills

in Chile

1 mills

in Argentina

1 mill

in Uruguay through a joint venture with Stora Enso





in Chile

# 2 mills

in Argentina

# 4 mills

in Brazil

# 2 mills

in Canada

# 7 mills

in United States

# 2 mills

in Mexico

# 4 mills

in Germany through a joint venture with Sonae

# 2 mills

in Spain through a joint venture with Sonae

# 2 mills

in Portugal through a joint venture with Sonae

# 2 mills

in South Africa through a joint venture with Sonae



Sawmills:

# 7 facilities

in Chile

# 1 facility

in Argentina

# 1 facility

in Germany through a joint venture with Sonae



**Power plants:** 

# 10 plants

in Chile

# 2 plants

in Argentina

# 1 plant

in Uruguay through a joint venture with Stora Enso



### www.copec.cl / www.terpel.com / www.mapcorewards.com

Copec sells and distributes liquid fuels and lubricants in Chile. In addition, through its affiliate Terpel, it sells and distributes liquid fuels in Colombia, Panama, Ecuador and Peru; natural gas in Colombia and Peru; and aviation jet at the major airports in Colombia, Peru and the Dominican Republic. On the other hand, through its affiliate Mapco, the company sells and distributes liquid fuels through a network of service stations in the southeastern United States, specifically in the states of Alabama, Arkansas, Georgia, Kentucky, Mississippi, Tennessee and Virginia.

The business strategy of these companies is focused on offering consumers a quality and differentiated service.

Copec is 100% owned by Empresas Copec.

On the other hand, and through Copec, Empresas Copec owns 58.51% of Terpel and 100.00% of Mapco.



**Service stations:** 

### 653 stations

from Arica to Puerto Williams

# 2,015 stations

in Colombia

# 141 stations

in Panama

### 100 stations

in Ecuador

# 40 stations

in Peru

# 345 stations

self-service stations in southeastern United States





# **Pronto outlets**

and 287 Punto outlets in Chile

# 42 outlets

in Colombia

# 35 outlets

in Panama

# 13 outlets

in Peru

# 5 outlets

in Ecuador

# 345 outlets

in southeastern United States



**Plants:** 

# 18 fuel storage plants in Chile with total capacity

of 543 thousand m<sup>3</sup>

# 1 lube plant

in Quintero, Chile, with a capacity to produce 124 million liters per year

# 1 lube plant

in Cartagena, Colombia, with a capacity to produce 7.6 million liters per year



### www.abastible.cl / www.insa.com.co / www.solgas.com.pe / www.duragas.com.ec

Abastible sells liquefied petroleum gas for residential and industrial use in cylinders and bulk formats; and for taxis and business fleets, through Autogas service stations. In addition, the company offers liquefied petroleum gas and solar dual-use solutions to heat sanitary water (Solargas), clean solution for water heating in the salmon and mussels farming industry (Nautigas); Generación Eléctrica, which supplies electricity through generators that work with liquefied petroleum gas; and Cogeneración, which through microturbines simultaneously produces electricity and useful heat, creating significant energy and maintenance costs savings.

Abastible has a maritime terminal that offers clean fuels wharfage services, as well as reception and storage of liquefied petroleum gas.

In Colombia, it owns Inversiones del Nordeste, a company that sells liquefied petroleum gas for residential and industrial use, through the companies Asogas, Norgas, Colgas de Occidente and Gases de Antioquia. In addition, it owns 33.33% and 28.32%, respectively, of gas distribution companies Montagas and Energas.

Meanwhile, through its affiliate Duragas, it sells liquefied petroleum gas for residential, commercial, industrial and vehicular use in Ecuador, and through the affiliate Solgas it sells liquefied petroleum gas for residential, industrial and automotive use in Peru.

This makes the company one of the major liquefied gas distributors in the Chilean market and the third largest in South America.

Empresas Copec owns 99.20% of Abastible.

In addition, through Abastible, Empresas Copec owns 51.00% of Inversiones del Nordeste, 100.00% of Solgas and 99.99% of Duragas.



Storage and bottling plants:

10 plants

25 plants

in Colombia

8 bottling plants and 1 storage plant in Peru

4 plants

in Ecuador





**Number of cylinders:** 

7.1 million

in Chile

3.8 million

in Colombia

4.2 million

in Peru

4.6 million

in Ecuador



Distribution and sales network:

29 sales offices

and 1,300 distributors in Chile

22 distribution

centers in Colombia

1,300 sales outlets

and 390 distributors in Peru

2 sales offices

and 900 distributors in Ecuador



Number of tanks:

63 thousand

in Chile

7 thousand

in Colombia

8 thousand

in Peru



#### www.orizon.cl

Orizon produces fishmeal and fish oil; frozen jack mackerel, mussels and cuttlefish; and canned Chilean mussel and fish, which are mainly sold under the Colorado, San José and Wirenbo brands. In addition, the company imports and distributes loin and minced tuna under the Colorado and San José brands and rice and legume under the San José brand. Since 2018, the company imports processed avocado pulp; and the products of the US company General Mills, with its Nature Valley and Fiber One brands for cereal bars, Haagen-Dazs ice cream, Betty Crocker baking mix, and Old El Paso Mexican tortillas and sauces. It is worth mentioning that all the company's production processes are certified under the Halal food quality and safety standard.



In Coquimbo:

and fish oil processing plant, with a production capacity of 70 tons of raw material per hour

# 1 canning plant

with a capacity to produce 5 thousand boxes of 24 units per day

# 1 frozen food plant

with a capacity to process 60 tons of cuttlefish per day

# 9 In Coronel: 2 fishmeal

and fish oil processing plants, with total production capacity of 220 tons of raw material per hour

# 1 canning plant

with capacity to produce 30 thousand boxes of 24 units of jack mackerel a day

# 2 frozen food plants

that produce 370 tons of product per day and 100 tons of cuttlefish per day, respectively

P In Puerto Montt:
1 canning

and Individual Quick Freezing (IQF) plant with a capacity to produce 60 tons of frozen products per day and 2 thousand canned boxes of 48 units per day

Others:

# 7 operational

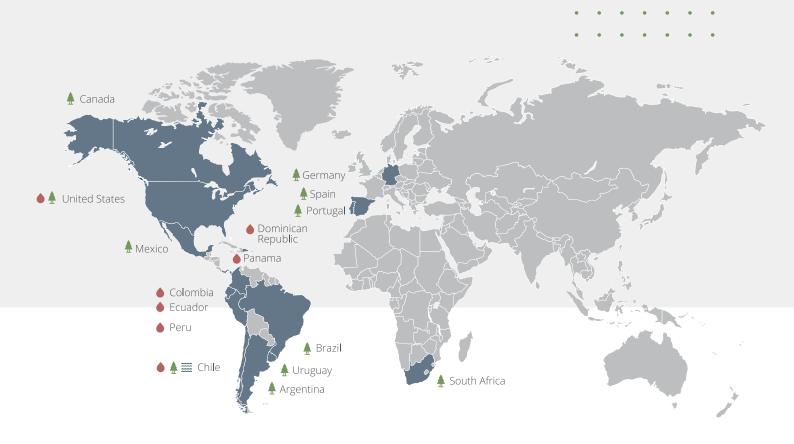
fleet ships with a total storage capacity of 10 thousand m<sup>3</sup>

## 393 hectares

of concessions for mussel cultivation in Los Lagos Region

# 2.4. International

# presence









# 2.5. Sustainability at

# **Empresas Copec**



Empresas Copec has a sustainable management model, with business development, caring for the environment and generation of social and economic value for its various counterparts being its main pillars.

In addition, the Company has a Sustainability Policy³, which establishes the general principles and guidelines for the development of activities in accordance with the highest sustainability standards in terms of transparency, integrity, continuous improvement, precaution and prevention, and protection and conservation of the environment. The same document describes the roles and responsibilities of the Board of Directors, the CEO, staff, consultants and contractors, for its fulfillment, reaffirming the enduring commitment of the Company and its affiliates to responsible and sustainable business management. Empresas Copec's Board of Directors is responsible for ensuring compliance with this Policy and following up on the main sustainability initiatives.

The affiliates' Board of Directors, for their part, must ensure compliance with the Policy within the framework of their respective companies.

# EMPRESAS COPEC AND ITS SUSTAINABLE DEVELOPMENT GOALS

In September 2015, 169 world leaders, under the aegis of the United Nations, agreed on a set of global objectives to eradicate poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. Each objective has specific goals that must be achieved by the year 2030, and for this, governments, the private sector and civil society must be part of it.

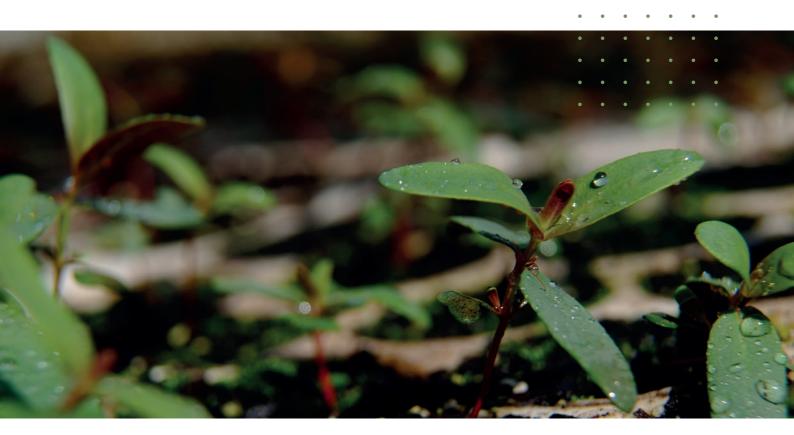
In this vein, Empresas Copec also decided to assume this commitment and to make specific contributions to some of the Sustainable Development Goals through various contributions and efforts. Therefore, throughout this Sustainability Report, the link between a certain goal and the contribution that the Company makes will be presented.

<sup>&</sup>lt;sup>3</sup> Details of the Sustainability Report available on the website at: https://www.empresascopec.cl/wp-content/uploads/2016/02/Sustainability-Policy.pdf

### 2.5.1. STAKEHOLDERS

STAKEHOLDERS	MAIN EXPECTATIONS	GUIDELINES	FORM OF ENGAGEMENT
Shareholders		Ensure long-term value	Corporate website
	<ul><li>Transparency</li><li>Comprehensive risk</li></ul>	creation for shareholders.  Keep shareholders informed	Investor website
	management	about the different risks that	Stock Department
	Operational	may affect the Company.	Mobile application
	sustainability		Institutional magazine
			Annual Report and Sustainability Report
			Investor Relations area: Email, Telephone
Investors and		Develop strong relationships with     wisting and potential investors, in	Corporate website
financial analysts	<ul><li>Transparency</li><li>Comprehensive risk</li></ul>	existing and potential investors, in order to help them to get to know the	Investor website
	management	Company and to promote transparency.	Mobile application
	<ul> <li>Operational sustainability</li> </ul>	<ul> <li>Keep investors informed about the progress of business, investments</li> </ul>	National and international conferences
		and projects, and of the different risks that may affect the Company.	Annual Report and Sustainability Report
			Investor Relations area: Conference Call, Earnings Report, Email, Telephone
Employees	development  Occupational Health and Safety Reconciling work and family life Human rights	<ul> <li>Prevent occupational accidents and illnesses.</li> <li>Foster work environments based on respect, honesty, professional quality and teamwork.</li> <li>Ensure the human development of all Company members, encouraging diversity, collaboration and ongoing training on sustainability.</li> <li>Comply with legal regulations on freedom of association.</li> </ul>	Institutional magazine
			Corporate website
			Code of Ethics, Internal Code and other corporate documents
			Whistleblowing hotline
Customers	<ul><li>Product and service quality</li><li>Satisfaction and complaints</li></ul>	<ul> <li>Contribute to the development of operations that enable customers to achieve their own sustainability goals. Provide customers with</li> </ul>	Corporate website
	Innovation     Minimize negative impacts of the product	a responsible and sustainable products and/or service offering.  Strive to deliver innovative and quality products and services that meet customers' needs and expectations.	Institutional magazine
Neighboring communities	impacts of the operation • Local socio-economic	<ul> <li>Develop the Company's activities in harmony with the social and environmental surroundings.</li> </ul>	Corporate website
		Prevent and mitigate potential negative impacts caused by the Company's activities.	Sustainability Report
		Implement community engagement programs and projects that create value where the Company undertakes its activities.	Institutional magazine

STAKEHOLDERS	MAIN EXPECTATIONS	GUIDELINES	FORM OF ENGAGEMENT
Suppliers and contractors	<ul><li>Timely payment</li><li>Compliance with</li></ul>	313	
	conditions / Fair treatment • Develop joint projects	relationship, always giving priority to benefit, quality, timeliness criteria that are in the Company's best interest.	Institutional magazine
			Email / Telephone
Society	• Regulatory compliance • Contribute to the	<ul> <li>Contribute to the development of the society through responsible, lasting and mutually collaborative relationships in areas such as education, innovation, housing and sports.</li> </ul>	Corporate website
	county's development Innovation Dialogue with		Institutional magazine
	stakeholders Corporate ethics Climate change	ппочасот, початка апо эрого.	Annual Report and Sustainability Report



# 2.6. Main recognitions

### and certifications

#### 2.6.1. MAIN RECOGNITIONS RECEIVED IN 2018

1

**ARAUCO** obtained Forest Stewardship Council recertification in Chile (FSC®, License Code: FSC-C108276) and Brazil (FSC®, License Code: FSC-C010673; FSC-C116843; FSC-C010303), as a sign of the important improvements made in their processes and in the way it relates to its environment.

3

**COPEC** received the 2018 Loyalty Award in the "Service Stations" category, from Alco Consultores.

6

**COPEC** was recognized among the 50 most innovative companies in the country, according to the "Best Place to Innovate" ranking, developed by GfK Adimark and Adolfo Ibáñez University.

9

**TERPEL** was included, for the second consecutive year, in the RobecoSam yearbook of good sustainability practices.

12

**COPEC** obtained the Carlos Vial Espantoso award for companies concerned about the quality of life of their employees.

4

**ABASTIBLE** was recognized for its ethical culture and corporate best practices, in the context of the Generación Empresarial 2018 Award.

7

**MOBIL** was recognized for its customers for the development and innovation in each product lines.

10

**COPEC** ranked 10<sup>th</sup> in the Corporate Reputation Award 2018, which performs annually Hill+Knowlton Strategies and GfK Adimark.

13

**TERPEL** was distinguished among the 25 companies that contribute the most in Colombia, according to a Semana magazine study.

2

**ABASTIBLE** received the "2018 Safe and Socially Inclusive Company" award from the Mutual de Seguridad.

5

**ARAUCO** Argentina received the PEFC/ CERFOAR certification for sustainable forestry management.

8

**ARAUCO** renewed the carbon neutral certification for its Vesto Melamine.

11

**ARAUCO** North America obtained TSCA VI certification for all its plants.

14

**ORIZON** obtained the Halal certification for all its productive processes, for one year.

#### 2.6.2. MAIN CERTIFICATIONS IN FORCE

Arauco's forestry heritage in Chile, Argentina, Brazil and Uruguay are achieved under Responsible Forest Management practices and are intended, mainly, to meet their own industrial needs. These forests are managed in a sustainable manner and the production processes are certified to the highest standards worldwide. During 2018, Chile and Brazil operations were recertified under the FSC® forest management standard (License Codes: FSC-C108276, FSC-C010673, FSC-C116843, FSC-C010303). In addition, the Arauco forestry operations in Argentina were certified under the PEFC/CERFOAR Sustainable Forest Management standards.

Arauco's pulp mills hold the highest national and international certifications<sup>4</sup>. During 2018, one of the most important milestones in Argentina was the PEFC - Chain of Custody Certification of the Nueva Esperanza pulp plant and in Chile, two important milestones were achieved: the end of the process of updating the ISO 9001 and ISO 14001 certifications 2015 version in the Licancel and Constitución mills and the recertification of the Licancel and Nueva Aldea milles with Certfor and FSC® Forest Custody Chain System, respectively. In matters of Occupational Health and Safety, the Arauco Argentina facilities obtained the OHSAS 18001 certification.

In the wood business, operations in Chile, Argentina, Brazil and North America were recertified to ISO 14001, version 2015, of environmental management. In addition, the Grayling Particleboard and Albany Treating and Lamination US mills obtained the FSC® certification. In addition, all the facilities in this country obtained the TSCA VI<sup>5</sup> certification, formaldehyde emission standard for wood products.

In its operations in Chile, Copec holds ISO 14001 certification. In addition, Vía Limpia, affiliate responsible

for helping customers to handle used oil and remove waste containing hydrocarbons, is certified to ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007.

Meanwhile, all Terpel products and processes are certified. In Colombia, its lubricants and aviation businesses hold ISO 9001, ISO 14001 and OHSAS 18001 certifications. Additionally, the aviation business holds the NORSOK S-006 certification and during 2018, it obtained the Joint Inspection Group (JIG) certification for the supply operations of this fuel. In addition, its facilities in Colombia received the uniform registry of evaluation of the Occupational and Environmental Safety and Health Management System for contractors from the hydrocarbon sector, and the Occupational Safety and Health Management System. For its part, in Peru, the Callao lubricants plant received ISO 14001:2015 and OHSAS 18001:2007 certification, and the transport companies received ISO 9001, ISO 14001, OHSAS 18001 and BASC (Security and Control Management System) certifications.

On the other hand, in Ecuador, all Duragas' facilities are ISO 14001 certified. In Peru, Solgas' Callao storage plant hold ISO 9000 quality management certification; ISO 14000 environmental management certification, and OHSAS 18000 operational safety and health certification. In addition, all its packaging plants are certified to ISO 14000, and 6 of them also hold OHSAS 18000 certification. In Colombia, Inversiones del Nordeste keeps the IMIS legal compliance certification and the international quality management standard ISO 9001 current at its facilities.

Orizon holds the Aquaculture Stewardship Council (ASC) Certification at its cultivation centers in Puerto Montt and in the chain of custody of the Plant, which

<sup>&</sup>lt;sup>4</sup> For further information, visit https://www.arauco.cl/na/sostenibilidad/certificaciones/

<sup>&</sup>lt;sup>5</sup> TSCA: Toxic Substances Control Act.

guarantees consumers, buyers and marketers that its products meet the highest sustainability, quality and social and environmental safety standard. Additionally, the company holds the IFFO-RS Certification for its Coquimbo and Coronel fishmeal plants, whose main purpose is to ensure sustainability of fishery resources. During 2018, follow-up and continuous improvement audits for both certifications were carried out, maintaining them until 2020. Additionally, all the company's production processes are certified to the Halal food quality and safety standard.



SDG 8: Decent work and economic growth





SDG 15: Life on land

# **2.7.**Risk rating

During 2018, rating agency Feller Rate reaffirmed its rating and outlook for Empresas Copec, at First Class Level 1. It also set at AA- its solvency rating. Similarly, Fitch Ratings confirmed its rating for the Company at Level 1 category, and assessed its solvency at AA-.

Regarding international ratings, both Standard & Poor's and Fitch Ratings kept Empresas Copec under the BBB risk rating.

For its part, Fitch Ratings recognized the Company for the third consecutive year as the market leader and awarded it the AAA rating for its operational stability and leverage, highlighting that they create credibility and confidence in the stock market.



# 03.

# **TRANSPARENCY**

102-17 / 102-18 / 102-19 / 102-20 / 102-22 / 102-23 / 102-25 / 102-27 / 102-29 / 102-30 / 205-2 / 206-1

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# 3.1. Corporate

### Governance





### 3.1.1. PRINCIPLES OF CORPORATE GOVERNANCE

Empresas Copec Corporate Governance is mainly based on the following principles: proper allocation of responsibilities in the Company, fair treatment of shareholders, dissemination of reliable and timely information to the market, compliance with current regulations and considering the interests of all stakeholders in decision-making, among others.

These principles are transmitted by the Company to each of its affiliates, in which it also strives to ensure that management practices, investment and productive action consider economic, social and environmental aspects, and that they are translated into contributions that go beyond the direct economic benefit and what is established by the legal framework.

### 3.1.2. CORPORATE GOVERNANCE STRUCTURE

The Board of Directors is the main Corporate Governance body. It is made up of nine members, who were elected, for a period of three years, at the 2018 Ordinary General Shareholders' Meeting. Most of the members of the board of directors were proposed by the controlling shareholder.

All its members have an outstanding professional career, contributing to the organization with complementary and independent visions. Additionally, none of them hold executive positions in the Company.

Name	Position	Seniority	Independent <sup>6</sup>
Roberto Angelini	Chairman	Since April 1986	No
Jorge Andueza	Vice-Chairman	Since April 2011	No
Manuel Bezanilla	Director	Since April 2016	No
Andrés Bianchi	Director	Since September 2007	No
Gabriel Bitrán	Director	Since April 2016	Yes
Juan Edgardo Goldenberg	Director	Since April 2005	No
Arnaldo Gorziglia	Director	Since April 2006	No
Andrés Lehuedé	Director	Since April 2018	No
Francisco León	Director	Since April 2018	No

<sup>&</sup>lt;sup>6</sup> Article 50bis of the Chilean Corporations Act No. 18,045, sets out the criteria of independence for members of the Board of Directors.

# **Board of Directors**



Manuel Bezanilla Director Attorney

4.775.030-K

4 Andrés Bianchi\* Director

Economist 3.367.092-3

**7** Gabriel Bitrán\* Director

Industrial Civil Engineer 7.033.711-8

2 Roberto Angelini Chairman

Industrial Civil Engineer 5.625.652-0

**5** Arnaldo Gorziglia **Director** 

Attorney 3.647.846-2

8 Francisco León Director

Civil Engineer 6.655.380-9

3 Jorge Andueza Vice-Chairman

Civil Engineer 5.038.906-5

Juan Edgardo Goldenberg\* Director

Attorney 6.926.134-5

9 Andrés Lehuedé Director

Commercial engineer 7.617.723-6

<sup>\*</sup> Members of the Directors Committee.

#### 3.1.3. WORKINGS OF THE BOARD OF DIRECTORS

The Board of Directors meets at least once a month and its main responsibilities are:

- **Define and assess** the general strategy of the Company in economic, social and environmental matters;
- Analyze large investment projects;
- Ensure effective and efficient risk management;
- Supervise the executive management of the Company;
- Monitor key operational and financial decisions;
- Ensure representativeness of the financial statements;
- Monitor compliance with the Law and the rules of self-regulation and the relationship with authorities and key market agents;
- **Select** the CEO and review his performance, having powers to remove him and supervise his replacement;
- **Advise** in the selection, review, development and compensation of the Company's senior executives.

During 2018, 21 Board sessions were held, with an average attendance of 85%.

Name	Attendance
Roberto Angelini	76%
Jorge Andueza	86%
Manuel Bezanilla	100%
Andrés Bianchi	95%
Gabriel Bitrán	86%
Juan Edgardo Goldenberg	95%
Arnaldo Gorziglia	95%
Andrés Lehuedé <sup>7</sup>	67%
Francisco León <sup>7</sup>	67%
Average	85%

To fulfill its responsibilities, the Board of Directors has a technological system that allows access, in a secure, remote and permanent manner, to all the minutes and documents of each Board session of the last five years.

# 3.1.4. TRAINING AND PERFORMANCE REVIEW OF THE BOARD OF DIRECTORS

The Board of Directors holds annual Training Program to ensure that its members are permanently up-to-date on best corporate governance practices, inclusion, diversity and sustainability reports, risk management, rulings, sanctions and conflicts of interest.

During 2018, the following training program was carried out:

- The Financial Market Commission: implications and prospects for corporate governance.
- The Compliance function and its support role for the Board of Directors and senior management.
- Challenges and treatment of conflicts of interest. Risks in the Board of Directors and senior management's performance.
- Update on the tax environment.

It should be noted that the aforementioned program is approved by the Board of Directors and published on the Company's website as to enable the different stakeholders to become acquainted with the matters addressed and the dates on which the training sessions were held. Additionally, these Training Program are also attended by members of the Board of Directors of the affiliated companies.

Complementarily, the members of the Board of Directors received the Compendium of Corporate Governance 2018, prepared by the Corporate Governance Center of the Pontificia Universidad Católica, which includes key documentation on Trends in Sustainability; National Jurisprudence; Latest Trends in Corporate Governance; and Risk Management in Organizations.

On the other hand, the Board of Directors carries out a performance review self-assessment every two years with the aim of ensuring continuous improvement in its workings. Thus, each member responds privately and confidentially to a series of questions related to the workings, behavior and management of the Board of Directors, which were prepared by an external consultant. The last review was carried out in 2018.

<sup>&</sup>lt;sup>7</sup> It should be recalled that Mr. Andrés Lehuedé and Mr. Francisco León joined the Company's Board of Directors in April 2018.



#### 3.1.5. DIRECTORS' REMMUNERATION

In accordance with the provisions of article 33 of Law No. 18,046, remunerations of Board members are defined and approved every year at the Ordinary Shareholders' Meeting.

During 2018, they amounted to a monthly amount of 300 UF for the members of the Board of Directors, 600 UF for the Vice-Chairman and 900 UF for the Chairman. Additionally, the members of the Directors Committee received a monthly amount of 100 UF for their functions.

Name	Position	Total Remuneration (UF)
Roberto Angelini	Chairman	10,800
Jorge Andueza	Vice-Chairman	7,200
Manuel Bezanilla	Director	3,600
Andrés Bianchi	Director	4,800
Gabriel Bitrán	Director	4,800
Juan Edgardo Goldenberg	Director	4,800
Arnaldo Gorziglia	Director	3,600
Andrés Lehuedé	Director	3,600
Francisco León	Director	3,600

It should be noted that the members of the Company's Board of Directors do not have variable remuneration or incentive plans such as bonuses, or stock-based compensations, or stock options or others.

### 3.1.6. SHAREHOLDERS' MEETING 2018

On April 25 of 2018, the Company's eighty-third Shareholders' Meeting was held, which was attended by 1,168,688,651 shares out of a total of 1,299,853,848 shares issued, accounting for a quorum of approximately 89.9% of the shares.

### 3.1.7. OTHER COMPONENTS OF CORPORATE GOVERNANCE

COMITTEE	MEMBERS	MAIN RESPONSIBILITIES	SESSIONS IN 2018
Directors' Committee	As established in article 50 bis of Law No. 18,046, this Committee is composed of three Directors elected by the Board of Directors and chaired by the Independent Director.	Analyze strategic issues; review reports submitted by external auditors and financial statements; and analyze the remuneration system of senior executives, and the operations with related parties.	During 2018, it held 6 meetings.
Ethics Committee	It is composed of three members, who are elected by the Board of Directors.	Provide advice on ethics; define, promote the values and behaviors that are promoted in the Code of Ethics; propose to the Board updates and amendments to this Code; and support the Crime Prevention Officer in the different control activities carried out, mainly in the process of identification and analysis of complaints that apply to the Prevention Model, determination of investigations and potential implementation of sanctions.	During 2018, it held 1 meeting.
Information Security Committee	It is composed by three members, who are chosen by the CEO. One of them plays the role of Information Security Officer.	Implement policies, rules and procedures established in the Information Security Model, and ensure compliance.	During 2018, it held 2 meetings.

UNIT	MAIN RESPONSIBILITIES	DEPENDENCE
Crime Prevention Officer	Apply and supervise the proper operation of the Crime Prevention Model in accordance with the provisions of Law No. 20,393 and its amending laws; report to the Board of Directors every six months on compliance with the Annual Program, which includes dissemination and training activities and monitoring of associated controls, among others. As of 2018, the duties of the Officer are performed by a professional of an independent external audit company.	The Crime Prevention Officer reports directly to the Company's Board of Directors, and is appointed a period of three years.
Antitrust Compliance Officer	Implement the Antitrust Compliance Program that allows compliance with regulations in this matter; identify current and potential risks faced by the Company; include internal mechanisms and procedures consistent with the commitment of compliance undertaken; and ensure the participation of Managers and/or Directors in the Program.	The Compliance Officer reports directly to the Company's Board of Directors.
Internal Audit Unit	Evaluate the Company's internal control system and report to the Board of Directors every six months on the degree of compliance with the policies, regulations, rules, legal provisions or other legal requirements in the system. The responsibilities of this unit are performed by the independent external audit company.	The Internal Audit Unit reports directly to the Company's Board of Directors.
Risk Management Unit	To comply with the corporate risk management policy and develop the plans and procedures necessary for the identification, assessment, monitoring, control and mitigation of both internal and external risks. As of 2018, the Risk Management responsibility is carried out by professionals of an independent external audit company.	The Risk Management Unit directly reports to the Company's Board of Directors.
Information Security Officer	Supervise that all workers comply with the policies, rules and procedures established in the Information Security Model.	The Information Security Officer reports directly to the Company's CEO.

It is worth mentioning that the Company's Crime Prevention Model was recertified by ICR Clasificadora de Riesgos Ltda. for the period from July 2018 to July 2020.

#### 3.1.8. ADMINISTRATION

The Board of Directors is responsible for the appointment of the CEO, whose main responsibility is to implement the strategies and comply with the economic, social and environmental targets defined by the Board. In addition, it is responsible for submitting to the Board of Directors the results of the Company's management on a monthly basis.

The remuneration of the CEO is defined by the Company's Chairman, who, once a year, reviews the fixed remuneration and defines the variable remuneration. The latter is voluntary and is determined based on market aspects, financial performance, team leadership, achievement of milestones, conflict resolution, M&A operations, among others.

Meanwhile, the CEO submits to the Directors' Committee once a year all senior managers fixed remunerations and their variations from the previous year. In addition, he submits a summary table showing the percentile in which each executive is located according to the total remuneration, compared to the market. It should be noted that remu-

nerations for all senior managers are also reviewed taking into consideration the market benchmark and individual performance. Senior managers variable remunerations do not consider environmental or safety and operational heal-th metrics, given that the Company is a financial holding and does not have commercial or productive operations directly.

It should be noted that it is Empresas Copec's policy that variable remunerations for the CEO and senior managers should not exceed 50% of their total remuneration. Additionally, no stock-based incentives or bonuses are granted.

During 2018, the remunerations and bonuses received by executives amounted to ThUS\$ 2,822 (ThUS\$ 2,685 in 2017), who on average received variable compensations that equaled, in their payment currency, 33.5% of these remunerations (33.9 % in 2017).

• • • • • • •



# **Senior Management**



- 1 Jorge Ferrando Corporate Research Manager Industrial civil engineer 12.059.564-4
- Rodrigo Huidobro Chief Financial Officer Industrial civil engineer 10.181.179-4
- Pamela Harris Director of Corporate Affairs Industrial civil engineer 14.119.104-7
- Cristián Palacios
  Director of Investor Relations
  and Investments
  Commercial engineer
  13.234.980-0
- 3 Eduardo Navarro Chief Executive Officer Commercial engineer 10.365.719-9
- **6** José Tomás Guzmán Corporate counsel and secretary to the Board Lawyer 6.228.614-8

### 3.1.9. CORPORATE GOVERNANCE IN AFFILIATED COMPANIES

Empresas Copec and its affiliates have taken on the challenge of making continuous progress with the implementation of Corporate Governance best practices.

During 2018, one of the most significant developments in governance was an increase in the number of independent board member in the affiliates' Board of Directors. For example, Terpel has a Board of Directors composed of seven main members and seven alternate members, where 25% of them are independent. For its part, Abastible increased the number of directors to a total of seven members, of which four are considered independent.

Female presence in subsidiaries' board of directors

Company	Men Board Members	Female Board Members
Empresas Copec	9	0
Arauco	9	0
Copec	7	0
Terpel	7	0
Abastible	6	1
Orizon	9	0

### **3.2. Risk**

# Management

Empresas Copec has a Risk Management Policy approved by the Company's Board of Directors, which includes the main risks, including sustainability risks. This guideline establishes how to systematically identify internal or external events that may pose risks for the achievement of business targets, assess them, weigh their impact, mitigate and monitor them, in order to support decision making. The policy is based on the principles of ISO 31000:2009 and is reviewed on an annual basis.

Compliance with this Policy is monitored and overseen by the Board of Directors and the CEO. Meanwhile, the Risk Management Unit is responsible for identifying and monitoring risks, assigning their impact and probability of occurrence, and periodically auditing compliance with the controls that have been established. It is important to note that the risks contained in the Policy form the basis of the Company's Risk Matrix, which is known by the Board of Directors and the Directors' Committee.

Meanwhile, as of 2018, the responsibilities of the Risk Management Unit are carried out by an external, independent auditing firm, which must update the Board of Directors on the progress of its program every six months. His role during 2018 was focused on strengthening the Crime Prevention Model, comprehensive risk management, the implementation of a fraud prevention model and a corporate compliance system.

Meanwhile, during 2018, Arauco, developed and carried out an intensive dissemination plan on its Internal Control Corporate Model, which seeks to ensure the reliability of the company's financial/accounting information. The aim of the implemented plan was to disseminate, train and deepen the importance of the model and the role that the different areas have in its management, as well as to promote the use of

the GRC Process Control 5 tool for management and monitoring of risks and controls with a financial/accounting focus. Thus, various activities were carried out with the Business Management and Cross-cutting Management in Chile, Brazil and Argentina.

In addition, Arauco continued to make progress in incorporating the changes that have taken place worldwide, in terms of impact levels and probability of occurrence of risks. Thus, during the year a series of investments in improvements in the fire fighting and protection level and in maintenance programs were carried out, and technical skills and equipment of the industrial brigades were enhanced. In addition, during 2019 the company will update the operational risks identified during the period 2014-2015, in order to prevent the occurrence or reduce the impacts of the facilities, such as serious and fatal accidents, natural disasters, fires, environmental damage, climate change, odor generation and temporary shutdown of industrial plants.

For its part, Abastible worked on the development and implementation of the Excellence and Operational Integrity Model, comprised of 12 standards and 20 critical practices. As a result, the company managed to implement at the regional level the 12 critical practices and 6 standards; and train workers from all countries and from different areas. In addition, the company carried out 9 training programs in process safety, which was attended by 200 workers from Duragas, Solgas, Inversiones del Nordeste and Abastible.

Orizon, meanwhile, implemented action plans for 10 key risks defined in the Risk Matrix, as well as configuring its indicators and monitoring its control activities. Additionally, the Risk Committee decided to address new significant risks, with 8 key risks that were established to be assessed and discussed during 2019.

### 3.3. Business ethics

# and regulatory compliance

#### 3.3.1. BUSINESS ETHICS MANAGEMENT

Throughout its history, Empresas Copec has acted in strict compliance with ethical principles, personal integrity and respect for current regulations. These principles and guidelines are contained in the Code of Ethics, which is reviewed and updated by the Ethics Committee and approved by the Board of Directors on an annual basis, and is available to stakeholders on the Company's website.

In addition, all workers must renew every year their commitment to compliance and knowledge of the rules established in the Code of Ethics, by means of a signed statement.

Additionally, Empresas Copec and Arauco have a Manual for Handling Information of Interest to the Market, which establishes the provisions relating to the use and/or disclosure of inside information, referred to in the General Regulation No. 270 of the Commission for the Financial Market. These provisions are mandatory for Directors, CEO, managers, employees and advisors with access to inside information, and external auditors.

On the other hand, Empresas Copec, Arauco, Copec, Abastible, Terpel, Orizon have Crime Prevention Models, aimed at protecting the occurrence of the crimes contemplated in Law No. 20,393 and its amending laws. These models are composed of a Crime Prevention Policy, an organizational structure that provides support, monitoring procedures and a whistleblowing channel. The latter is confidential and anonymous, and allows anyone who has information about an act or event that implies a breach of current regulations or derogates from the principles established in the Code of Ethics, is able to report it directly to the Company's highest level.

During 2018, Empresas Copec and Arauco did not receive any complaints regarding the crimes contemplated in Law No. 20,393. Additionally, Abastible updated its Code of Ethics and consolidated its Whistleblowing Channel, for which the company implemented the "Descárgate" campaign so that all workers understood its purpose and operation.

COMPANY	CODE OF ETHICS	WHISTLE- BLOWER CHANNEL	CRIME PREVENTION MODEL	HANDLING OF INFORMATION OF INTEREST TO THE MERKET
Empresas Copec	Χ	Χ	X	X8
Arauco	X	Χ	X	X
Copec	X	Χ	X	Not apply
Terpel	X	Χ	X	Not apply
Abastible	X	Χ	X	Not apply
Orizon	X	Χ	Χ	Not apply

<sup>&</sup>lt;sup>8</sup> The Manual for Handling Information of Interest to the Market was updated in 2018 and is available at: https://www.empresascopec.cl/wp-content/uploads/2017/01/Sensitive-Information-Manual.pdf

#### 3.3.2. CONFLICTS OF INTEREST

The Company, with the aim of ensuring that decisions are taken protecting the interests of all shareholders, has put in place a mandatory procedure for Directors, CEO, Managers, Senior Executives and employees to regulate and control possible conflicts of interest.

This procedure is included in the Code of Ethics and in the Manual for Handling Information, and states that any person who is in a position to influence Company's policies or decisions while holding a significant investment or a director's or management position in another company with business relations, either directly or through spouse or relative up to the second degree of kinship (parents, children, grandparents, grandchildren and siblings), shall refrain from making a decision, communicating it to the direct supervisor.

3.3.3. ANTI-CORRUPTION, ANTITRUST AND REGULATORY COMPLIANCE

Empresas Copec and its affiliates have externally certified Crime Prevention Models, which were updated in 2018 to incorporate the latest crimes under Law No. 20,393, including: private-to-private corruption, incompatible negotiation, misappropriation and unfair management.

Regarding antitrust, Empresas Copec and its affiliates have defined strict procedures to prevent workers from engaging in actions or behaviors that could be interpreted or that imply abusing, in any way, customers, suppliers and contractors, in matters relating to prices, contractual or other similar conditions.

During 2018, Empresas Copec published its Compliance Program of Principles and Regulations on Antitrust Manual and the Board of Directors appointed a Compliance Officer, responsible for implementing this Program; identifying current and possible risks faced by the Company; and including internal mechanisms and procedures in line with the commitment to compliance undertaken.

Abastible, for its part, carried out various regional efforts within the framework of the Compliance Program on Antitrust Regulations. Such efforts include training for workers on free competition and unfair competition, information campaigns, surveys to measure the degree of adherence and setting up Antitrust Committees, composed of members of the Board of Directors, CEO, Legal Manager and responsible for Internal Control, aimed at resolving cases, adapt guidelines and monitor proper compliance of the Manual.





### Company

% of persons trained in antitrust, anti-corruption, crime prevention and compliance with ethical standards

	2017	2018
Empresas Copec	100.0%	100.0%
Copec	100.0%	4.0%
Terpel <sup>9</sup>	100.0%	38.3%
Arauco	90.0%	N/D
Abastible	64.2%	35.5%
Orizon	56.6%	83.6%
Copec Terpel <sup>9</sup> Arauco Abastible	100.0% 100.0% 90.0% 64.2%	4.09 38.39 N/I 35.59

Regarding contributions to the community, Empresas Copec and its affiliates have in place policies that clearly define the emphasis of the initiatives eligible for contributions, as well as the conditions that they must meet in order to apply under the current legislation. In addition, and in accordance with the provisions of Law No. 20,900, contributions to political parties have not been made by the Company in recent years.

# 3.4. Investor relations

Empresas Copec has an Investor Relations Deputy Management, reporting to the Administration and Finance Management, responsible for serving and guiding investors and analysts on the behavior of markets and the course of the Company's businesses. In addition, it is the area responsible for timely earning announcements and issuing statements on subjects that may be of interest to investors. It relies on several information delivery platforms: face-to-face and telephone conferences, publications, an exclusive website for investors (http://investor.empresascopec.cl), and a specific mobile application.

Save the date mechanisms have also been implemented through the web, the app and electronic communications, where financial market stakeholders are notified on the next key dates for issuing earnings reports or conference calls, as well as details to get connected. Dates of press releases and dividend distribution are also included in the website calendar.

The area has a team of four professionals, headed by an Investor Relations Manager (IR), with permanent availability to assist investors and with full command of the English language, to facilitate communication with investors and analysts. This team is responsible for periodically submitting to the Company's Board of Directors inquiries and suggestions resulting from the interactions with investors and analysts.

It should be noted that this area has implemented an important Corporate Governance practice in order to ensure timely delivery of information to all shareholders. This practice is voluntary and consists in establishing blackout periods for investors two weeks prior to earnings announcements in order to safeguard all confidential or sensitive information related to the Company's financial results.

<sup>&</sup>lt;sup>9</sup> Percentage exclusively refers to Colombian employees.

## 04.

# SUSTAINED GROWTH

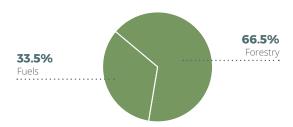
102-10 / 201-1 / 204-1 / 419-1

## 4.1. Key economic

## figures 2018

#### Income

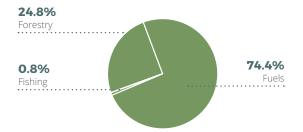
2018



Total: 1,071 million dollars

#### **Consolidated sales**

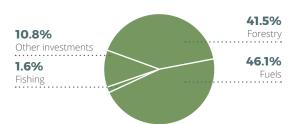
2018



Total: 23,487 million dollars

#### **Consolidated investment**

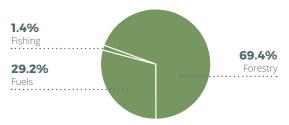
2018



Total: 2,221 million dollars

#### Consolidated EBITDA

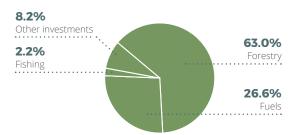
2018



Total: 2,767 million dollars

#### **Consolidated assets**

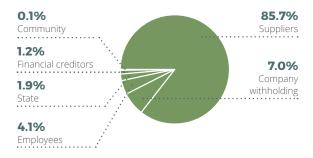
As of December 31, 2018



Total: 23,487 million dollars

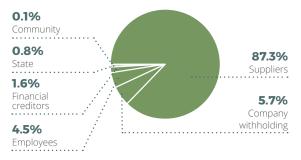
#### 4.2. ECONOMIC VALUE GENERATED AND DISTRIBUTED

### **Economic value generated and distributed** 2018



Total: 23,993 million dollars

### **Economic value generated and distributed**



Total: 20,147 million dollars

In 2018, economic value generated <sup>10</sup> by Empresas Copec and its affiliates was US\$ 23,993 million, 18.9% higher than in 2017. This increase is mainly explained by higher revenues in Arauco's business lines, particularly wood pulp, which experienced better price levels throughout the year. This adds to higher sales for the affiliate Copec, in part due to a better performance of Mapco and the consolidation by Terpel of ExxonMobil assets from the second quarter, in addition to increased sales of liqued-fied petroleum gas by Abastible.

Most of this value generated went to pay suppliers for goods and services, 17.6% higher than the previous year, as a result of higher unit production costs in the forestry sector and higher volumes sold in the fuel sector. Meanwhile, 4.1% went to pay employee compensations.



### 4.3. Main investments,

## expansions and internationalization

## 4.3.1. EMPRESAS COPEC AND ARAUCO'S BOND PLACEMENTS

Empresas Copec completed a UF 1.3 million bond placement in the local market, with a 10-year bullet structure and a rate of 2.26%. The rate was the lowest in the market history for corporate bonds of similar maturity.

Arauco, for its part, issued two series of bonds in the domestic market, one 10-year bond worth UF 3 million and a rate of 2.38%, and one 25-year bond worth UF 5.5 million and at a rate of 2.88%. Proceeds will be fully used to finance the MAPA Project.





<sup>&</sup>lt;sup>10</sup> The economic value generated includes ordinary income and other compensation received by the Company.



#### 4.3.2. MODERNIZATION AND EXPANSION OF ARAU-CO MILL (MAPA) PROJECT

Arauco started its Modernization and Extension of Arauco Mill (MAPA) project, aimed at increasing production capacity of this complex up to 2.1 million tons of pulp per year, with state-of-the-art equipment, and a new modern effluent treatment plant. This is a highly significant effort for Chile and, in particular, for the Biobío Region, since it involves an investment of US\$ 2,350 million and injects dynamism and resources into the economy of the area. It is expected to enter into operations during the second quarter of 2021.

The project includes a set of environmental management measures, such as an ecosystemic research program, extensive monitoring plans (air, water, noise, among other aspects) and socio-environmental measures designed to benefit local communities, including commitments with people, communities and associations of the Mapuche people, hiring up to 8,000 jobs during the construction phase. In addition, it will allow to continue generating clean and renewable energy thanks to a biomass cogeneration power plant, producing a surplus of approximately 166 MW that will be delivered to the National Electric System (SEN), through a Transmission Line, whose construction is also part of the project.





SDG 8: Decent work and economic growth





SDG 16: Peace, justice and strong institutions

## 4.3.3. CITIZEN'S PARTICIPATION FOR THE FUTURE "VIENTO SUR" WIND FARM

Arauco started in 2018 the early voluntary citizen's participation process for the future wind farm called Viento Sur, in the Biobío Region, and submitted the Environmental Impact Study to the Environmental Impact Evaluation Service in March 2019. As part of the initiative, up to 43 wind turbines will be installed with an installed power of up to 200 MW and 60 kilometers of transmission lines. It will demand an investment of close to US\$ 250 million and generation will be equivalent to the consumption of 540 thousand households.





### 4.3.4. DISSOLVING PULP PROJECT AT VALDIVIA MILL, CHILE

Arauco started its Dissolving Pulp Project at Valdivia mill, becoming the first company in the country to produce pulp to be used as a raw material for textile fibers, cellophane and filters, among other products. With an investment of US\$ 185 million, it will produce an innovative product with higher added value, which diversifies Arauco's offer, allowing it to enter a new growing market. During 2018, progress was also made in the socialization of the project with regional and local authorities, representatives of the communities, professionals from research centers and other stakeholders of the project.





SDG 8: Decent work and economic growth



## 4.3.5. ASSET PURCHASE FROM MASISA IN MEXICO AND BRAZIL

In the international arena, Arauco completed the purchase of Masisa's industrial assets in Mexico, after receiving approval from the local authorities. As a result, Arauco added three industrial complexes located in Durango and Zitácuaro, with three agglomerate lines with a capacity to produce 519 thousand m³ per year, an MDF board line with a capacity to manufacture 220 thousand m³ per year, three melamine coating lines, a chemical plant for resins and formalin, and a veneer line.

## 4.3.6. GROWTH OF THE FUEL SALES NETWORK AND VOLTEX NETWORK DEPLOYMENT

Copec continued expanding its fuel stations network, adding new stations in Alto Hospicio, Balmaceda, Colina, Los Angeles, Machali, Pedro Fontova, Quillota and Talca. It also added 10 in Panama, 40 in Colombia, 42 in Ecuador and 8 in Peru, through Terpel. Also, new convenience stores were added under different formats: 8 in Chile, 9 in Colombia, 3 in Panama and 2 in Peru.

Meanwhile, Copec launched South America's largest Voltex electric vehicle fast charging network at the beginning of 2019. This network consists of 23 chargers located between the cities of Papudo and Concepcion, with total coverage of 700 linear kilometers. At the same time, a project was materialized with a passenger transport company

to implement the continent's first 100% electric interurban bus, covering the Santiago-Rancagua route, for which a charging spot was installed at the Alameda terminal.





## 4.3.7. CLOSING OF REGIONAL AGREEMENT WITH EXXONMOBIL

During 2018, Terpel received approval for the regional agreement with ExxonMobil, which was agreed at the end of 2016. As a result, control was taken over the development and distribution of Mobil lubricants in Colombia, Ecuador and Peru; the acquisition of the Callao and Cartagena processing plants (blending), which together with the Quintero Plant in Chile make up a regional network that supports leadership in the lubrication business in the Pacific Coast; ExxonMobil's fuel distribution business in Ecuador, which includes industrial supply and a network of more than 40 service stations; and the exclusive concession for fuel operation at the lorge Chávez International Airport in Lima, as well as commercialization in Peru's competitive aviation market. Thus, the company's presence has led to the establishment today of a continental airport network covering the Dominican Republic, Colombia, Peru and Chile.

#### 4.3.8. ABASTIBLE'S INFRASTRUCTURE EXPANSION

Abastible continued to develop in the region the necessary infrastructure to provide its customers with an efficient, timely, innovative and safe service. Meanwhile, Solgas made progress on the construction of a third liquefied petroleum gas storage sphere in its Ventanilla bottling plant, located in the Callao Region, in Peru, aimed at expanding capacity by 50%. Additionally, Inversiones del Nordeste carried out the commercial, operational, logistics and of all support processes integration of Gasan into Norgas, which involved major benefits in terms of assets, optimization and synergies. At the same time, Duragas made important enhancements in its computer systems to facilitate order management for bulk customers and to make processes more efficient, among other efforts.



## 4.3.9. ORIZON OBTAINED REPRESENTATION OF MEGAMEX AND GENERAL MILLS

Orizon acquired the representation for Chile of the high-pressure processed avocado pulp from the Mexican-American company Megamex, which is marketed in more than 700 hotels, restaurants and casinos; and the national supply of products from the US company

General Mills, including cereal bars brands Nature Valley and Fiber One, Haagen-Dazs ice creams, Betty Crocker pre-mixes and Old El Paso Mexican tortillas and sauces. The acquisition of both representations involved an investment of US\$ 10 million and will result in 20% growth in the company's total sales.

## **4.4. Fines** and sanctions

Empresas Copec and its affiliates continue to make every effort to fully comply with local legislation in each of the countries and industries where it operates. During 2018, there were no environmental fines and/or sanctions.





## 05.

SUPPORTING
THE VALUE CHAIN

Empresas Copec and its affiliates are permanently focused on delivering goods and/or services to their customers that meet stringent quality and safety standards, while promoting the development of suppliers and distributors.

### 5.1. Customers

Copec is continually implementing solutions to deliver a quality and timely service to its customers. As such, the company has "Llámanos", a communication line to channel claims, inquiries and suggestions. This system is available every day of the year, 24 hours per day, delivering a response to the inquiries within maximum 72 hours.

In addition, Copec has been concerned to carry out important promotions, campaigns and partnerships to deepen customer loyalty. During 2018, the company conducted a joint campaign with Banco de Chile to communicate a new payment method through "MiPago" app. This is in addition to the partnership with Banco Estado, which allowed CuentaRut and debit card holders of this banking institution to pay through the PagoClick app. Meanwhile, the Latam Pass program, which offers the possibility of earning miles when buying fuels, lubricants or products in Pronto stores, already has more than 1.9 million registered customers.

In Addition, in order to simplify and facilitate the benefits of the TaxiAmigo loyalty program, Copec launched a mobile application that replaces the old physical cards. With this system, drivers have a record and control of fuel loads made, in addition to discounts and special promotions.

Terpel, meanwhile, has the Club Terpel LifeMiles loyalty program, with more than 780 thousand users and 46 "altoque" stores and 823 service stations associated. In addition, the company launched its Friend Terpel program, which seeks to reward frequent customers of Va&Ven and Quick Shop convenience stores, Wash'n Go cars wash and service stations. In 2018, this initiative was implemented in 100% of convenience stores and service stations, delivering more than 55 thousand loyalty cards, more than 30 thousand active customers and

nearly 25 thousand downloads of the program's mobile application.

On the other hand, for companies with transport fleets, the company offers the Rumbo Terpel program, which allows customers to control their supply of liquid fuels and vehicular natural gas. As of 2018, this program is accessible digitally, leading to a 12% increase in the number of vehicles registered from the previous year.

Abastible, for its part, has continued to develop initiatives that not only provide a secure service to its customers, but also improve their quality of life. In this sense, the company has sought to enhance its service channels through digital platforms. Thus, and thanks to the implementation of the Abastible Meter, orders via social networks and app increased 30%.

Meanwhile, Abastible Autogas signed a partnership with the Taxicity application to promote the use of clean energy in public transport, offering benefits to taxi drivers with liquefied petroleum gas vehicles that participate in this digital platform.

In the case of Orizon, commercial efforts made during the year allowed it to almost double the number of customers nationwide and increase 42% the number of international customers.

Finally, Arauco has a Claims Management System to respond to the requirements of the different customers, which allows tracking and improving operations, products and services. Customers, on their part, have direct access by telephone lines. In addition, the company has strict labeling and marketing processes for its products, ensuring that its consumers are always informed about the characteristics, composition and technical specifications of the products they purchase.

Thanks to all this, the following metrics were obtained during 2018:



85%

of road customers preferred Copec service stations

64%

Top of Mind for Pronto stores in Chile

43%

of surveyed customers preferred the Terpel brand<sup>11</sup>

8.6 (on 10)

is the general satisfaction level of Terpel customers<sup>12</sup>



352 thousand

fans has Arauco in various social networks



710 points

position Abastible as the preferred brand of excellence in the gas category of Chile 3D

## **5.2. Dealers** and distributors

For Copec and Terpel, dealers, who are responsible for managing a service station, are an essential part of their business strategy. Therefore, both affiliates seek to develop long-term relationships, offering development opportunities and promoting efficient processes and continuous improvement.

Thus, Copec has a specific area in charge of advising dealers on the identification of opportunities, training them in business and personal education programs through various courses and field practices. This area, called "Copec Centro", seeks to enable dealers to commercially develop their business, maintain management excellence, and comply with the goals and parameters of the brand in terms of service, image and security. During 2018, five working days were held between Copec employees and dealers, aimed at sharing ideas and solving common doubts about the image and service, computer or security systems, among others. In addition, the annual Talks for Dealers from the north-central, southern and Santiago areas were held.

In addition, Copec continued to implement its Sites technological platform, a technological architecture developed to facilitate management and operation of service stations. This tool allows to streamline the service process in service stations, providing dealers with remote access to online monitoring and support services. At the end of 2018, Sites was up and running in 606 service stations. At the same time, the company launched an e-Commerce platform for dealers in Santiago, an effort that will facilitate the purchasing processes.

Terpel, for its part, has the Terpel Entrepreneur Network (RET by its Spanish acronym), which brings together 1,346 affiliates and franchisees, in order to encourage the values of integrity, respect and trust that distinguish the company. During 2018, eleven ExpoRet meetings were held, attended by 876 affiliates and franchisees, and nine mini-events in which 63% of the network of service stations participated.



<sup>&</sup>lt;sup>11</sup> Brand Equity Monitor 2018 survey.

<sup>&</sup>lt;sup>12</sup> Service stations customer satisfaction survey, produced by Brand Strat.

In addition, Terpel implemented a task management application to facilitate management of operations at service stations and convenience stores. It is a tool that quickly and efficiently manages fulfillment of activities and allows analyzing trends for decision making. At the end of 2018, 114 convenience stores and stations had this application.

SDG 9: Industry, innovation and infrastructure

Abastible, meanwhile, has an important distributors network in each one of the countries where it has a presence, responsible for delivering a service of clean and quality energy to final consumers. In Chile, the company has a platform called "Familia Naranja", which allows distributors to place orders more quickly and have the financial information of each center.

Meanwhile, in Peru, the number of distributors increased by more than 75% from the previous year, in order to reach the final customer more directly. Likewise, the number of delivery vehicles was increased by 68 trucks and 101 motorcycles.

Finally, in Ecuador, the company worked on the development of the Duragas Family project, which consists of making a mobile and web application available to distributors, starting in 2019, to improve the efficiency in order entry, management and payment.



#### 5.3. Attendants

Copec is permanently concerned to strengthen the bond between attendants and the company, thus reinforcing the commitment to customer service. To this end, the company has an incentive and benefits program, called Pits, through which the attendants earn "Pits Points" for the results of their personal reviews and of their work team, considering factors such as service, image and promotion of campaigns.

Terpel, for its part, has comprehensive education and training programs for its service stations employees, called "Escuela de Isleros" and "Escuela de Administradores," which offer training on areas such as customer service and service excellence. By the end of 2018, a total of 7,769 attendants and 670 managers had been trained in Colombia, Ecuador and Panama.

In addition, the "Escuela de Tiendas" seeks to strengthen convenience store personnel's customer service capabilities and abilities. During 2018, 261 employees were trained in Colombia and Panama.

Additionally, Terpel implemented the Pits program in Peru, aimed at managers, assistants and service representatives of the service stations and Alto stores, in order to guarantee the implementation of the company's strategy in the different outlets. Through this program, employees are recognized for their service, constant work, commitment and leadership.







## 5.4. Supply

#### chain

Empresas Copec and its affiliates have different suppliers in their value chain, which are associated with varied services, materials and supplies.

During 2018, at a consolidated level, US\$ 22,561 million were purchased from suppliers of goods and services, a 17.6% increase from the previous year.

Major suppliers include:

**Arauco Pulp:** Compañía de Petróleos de Chile Copec S.A. (17.0%); Eka Chile S.A. (11.0%); Occidental Chemical Chile Limitada (11.0%).

Arauco Wood: Oxiquim S.A. (16.0%).

% OF PURCHASES FROM SMES (measured in dollars)

Company	2017	2018
Arauco	N/D	27%
Copec	6%	3%
Terpel	0%	13%
Abastible <sup>13</sup>	6%	2%
Orizon	35%	49%
Empresas Copec	41%	22%
Total	3%	10%

It should be noted that during 2018, Empresas Copec obtained the Pro-Pyme Seal, a distinction awarded by Chile's Ministry of Economy, Development and Tourism only to entities that pledge to pay their SME suppliers within 30 calendar days of invoicing. The aim is to guarantee better conditions for the smaller companies in the country.

For its part, Terpel has specific guidelines and processes that promote, facilitate and encourage its suppliers to comply with good ethical behavior, respect for human rights and environmental care, among other best practices. During 2018, the company classified its suppliers according to their level of criticality for the business, in addition to assessing 285 suppliers in Colombia, the Dominican

**Arauco Forestry:** Compañía de Leasing Tattersall S.A. (27.0%).

Copec: Enap Refinerías S.A. (44.0%).

Abastible: Gasmar S.A. (44.0%); Enap Refinerías S.A. (11.0%).

It should be noted that Empresas Copec and its affiliates ensure that their suppliers receive fair and timely payment for their products and services, and that their selection process is primarily based on criteria including usefulness, quality, opportunity and budget.

In Chile, a large part of these suppliers are small and medium-sized companies. During 2018, the percentage of SME suppliers was as follows:

% OF PURCHASES FROM SMES (measured in number of suppliers)

Company	2017	2018
Arauco	N/D	54%
Copec	60%	63%
Terpel	73%	79%
Abastible <sup>13</sup>	21%	8%
Orizon	56%	44%
Empresas Copec	51%	56%
Total	55%	53%

Republic and Panama, with 4 of them terminated for failing to meet minimum standards.

Additionally, Terpel, in order to encourage sustainable development of its supply chain, established a partnership with the Externado University of Colombia and the United Nations Global Compact. As a result, the company trained its suppliers and affiliates in the "First Steps in Corporate Social Responsibility" program, by linking four organizations, who received consultancy and training on sustainability issues.

Terpel also carried out a pilot project, in which 13 high-critically suppliers assessed themselves on issues related to

<sup>&</sup>lt;sup>13</sup> Only information of Abastible in Chile is included.

ethical behavior, human rights, contracting conditions, environmental management, communities, among others. As a result, it was possible to identify that 92% of the suppliers assessed implement best practices, in at least five of the 12 assessed dimensions.

Meanwhile, Orizon has a close relationship with artisanal fishermen, who provide an important part of the raw material processed by the company. Orizon, for its part, provides them with support to improve their boats and fishing nets, and makes technical transfer and information efforts necessary to improve management of the artisanal fishing effort and the preservation of raw material and the environment.

Arauco, meanwhile, favors procurement and purchase of goods and services from suppliers located in the areas where it has forestry and industrial operations, thus contributing to the social and economic development of each region. During 2018, purchases from local suppliers totaled US\$ 2,068 million in Chile, Argentina, Brazil and North America.

At the same time, Arauco continued with its Supplier Development Program, intended to provide continued support to local entrepreneurs from the communities surrounding its production facilities. Through this program, the company incorporates local entrepreneurs into the list of suppliers of goods and services.

	201714	2018
Company	% of local purchases (measured in US\$) <sup>15</sup>	% of local purchases (measured in US\$)
Arauco <sup>16</sup>	53%	55%
Copec	74%	65%
Terpel	90%	87%
Abastible <sup>17</sup>	73%	85%
Empresas Copec	99%	98%
Total	76%	72%

	2017	2018
Company	% of local purchases (measured in number of suppliers)	% of local purchases (measured in number of suppliers)
Arauco	N/D	N/D
Copec	97%	97%
Terpel	97%	96%
Abastible <sup>17</sup>	96%	99%
Empresas Copec	95%	95%
Total	96%	89%





SDG 8: Decent work and economic growth





<sup>&</sup>lt;sup>14</sup> No information from Arcoprime or Orizon is included because of the lack of specific information from local suppliers .

<sup>&</sup>lt;sup>15</sup> Local purchases are those made within the country where each facility is located.

<sup>&</sup>lt;sup>16</sup> Information is included only from Arauco in Chile.

<sup>&</sup>lt;sup>17</sup> Information is included from Abastible in Chile and in Colombia.

## 06.

- INNOVATION
  AND DIGITAL
  TRANSFORMATION
- 102-13

For Empresas Copec and its affiliates, innovation is key to being able to anticipate and adapt to increasingly challenging and constantly evolving environments. As such, companies have incorporated technologies such as Big Data, Artificial Intelligence, Internet of Things and robotics, among others, into their productive and commercial processes.

## **6.1. Management models** for innovation

Arauco has an innovation strategy that revolves around three themes: value creation for the company and its environment, development of an innovative culture and a virtuous relationship with the innovation ecosystem. As a result, the company has managed to lead, materialize and promote important projects that have allowed to encourage a form of open and collaborative innovation work, such as promoting the use of wood in construction; protection and sustainable management of native forest; innovation in panel production, and driving social innovation and shared value projects.

In this vein, Arauco has been holding the Open Innovation Challenge for three years, inviting its workers to propose ideas linked to a specific theme. In 2018, a total of 215 ideas were submitted, from workers in Chile, Argentina, Brazil and North America, which sought to enhance Arauco's global strategy. As a result, 14 prototypes linked to the application of technologies in the workplace and the development of higher efficiency levels were implemented and the digital "road map" for the area of wood and panels was defined.

Additionally, Arauco Digital LAB is an area designed to accelerate the adoption and understanding of the impact of new technologies and their contribution to the business, both in terms of cost reduction, maximizing production, efficiency improvement and obtaining competitive advantages. Since its creation, solutions to various problems have been developed: manufacturing processes automation, incorporation of data analysis systems, simulations of water flow and plants behaviors in nurseries, or the implementation of new applications and IT tools are some of the concrete contributions of this initiative.

For the affiliate Abastible, for its part, innovation is defined as the ability to continue growing and building a leading company in the region together with its workers. In conjunction with the internationalization of the company, a process of cultural change oriented to innovation was developed, strategically focused on satisfying current and future customer needs. This move required the company adaptation, not only in technology, but in the way of looking at the business and looking for ways to add value. As a result, the i-NOW program was born in 2017, through which Abastible structures and systematizes innovation, while tapping the huge innovation potential in the ecosystem made up of employees, distributors, customers and suppliers. As part of the program, a series of tools, participation channels, training activities, methodologies, workshops and a team dedicated to strengthening innovation management in the company are made available to the organization. During 2018, the "Dale una Vuelta" initiative was developed, where plants and offices were invited to propose creative and original ideas to solve a local problem, encouraging teamwork to find solutions and promote the use of creativity to improve the company's results.



In addition, Abastible promotes innovation culture internally through talks with subject matter experts, called i-Now Talks, which are carried out in offices and plants. Training programs are also developed for supervisors and area managers, and field workshops.

For its part, i-Now Lab is an incubator of innovative solutions for residential customers, that seeks to improve the experience through new products and services. Through a specific method, workers propose ideas that are assessed and eventually can become concrete projects. There is also an Innovation Committee, made up of corporate managers, which decides which project is to be prioritized, developed and implemented, and at the same time ensures financial resources and people required for that purpose.

The efforts made by Abastible in the field of innovation earned it the "Innoweeks" Award from SAP's innovation center, called SAP Leonardo, the most important distinction that a company can receive for its continued effort to make progress in the identification and monitoring of its cylinders.

On the other hand, the affiliate Copec launched Kaleu, a digital transformation project that seeks organizational adaptability, experience design, innovation and the application of "data & analytics". During 2018, three concrete initiatives were implemented that stimulated collaborative work and opened spaces for innovation: Digital Academy and Spaces for Innovation and Omni-channel Experience.

Meanwhile, Golden Omega has a strategy of applied technological innovation, based on the development and implementation of effective technological innovations in the world of Omega-3 fatty acids. It relies on a team of scientists and engineers dedicated exclusively to Research and Development, state-of-the-art laboratories and also a Pilot Facility.

In addition, the company has implemented Delivery Solutions, a collaborative model with the world's best manufacturers, aimed at developing products in which each player provides what they know best: one delivers the Omega 3 concentrate exclusively and the another one applies its technology to transform it into a new product that allows responding to the tastes and needs of the different types of customers.

#### 6.2. INNOVATION CENTERS

Another way to contribute to the development of innovative solutions is through the establishment of specialized centers.

Arauco has Bioforest, a unique scientific-technological research center in South America that develops and applies the best technologies to maximize the productivity of forest and industrial resources, developing research on processes for the Forestry, Pulp and Wood areas in the different countries where it operates. It has 51 highly specialized researchers dedicated to conducting studies in genetics of plantations, quality of wood, productivity of the land and control of pests and diseases. In addition, it is concerned with improving production processes, such as board manufacturing, studying the physical-mechanical properties of products, developing new solutions and designing treatments that add value to the company. During 2018, the center organized the seventh scientific committee, a space for collaboration and promotion of scientific knowledge where national and international experts shared knowledge and ideas.



#### **6.3. PARTNERSHIPS FOR INNOVATION**

For Empresas Copec, investing in R&D and providing support to researchers and entrepreneurs in this area is essential to promote new ideas that become concrete benefits for society. Therefore, the Company has established key partnerships with institutions such as the Copec-UC Foundation, the Copec-UC Fund and the UC Anacleto Angelini Innovation Center.

The Copec - UC Foundation<sup>18</sup> was created in 2002, together with the Pontificia Universidad Católica de Chile, in order to promote scientific and technological development focused on natural resources. Its mission is to promote research and development for solutions that respond to issues relevant to society, through strategic public-private partnerships. Thematic seminars and three competitions to promote research are held every year: R&D Regular Competition to Innovate; R&D Competition to Innovate for Young Researchers, and the Competition for Higher Education Students: 'Apply your idea', providing technical, commercial and financial support to various initiatives.

<sup>18</sup> https://fcuc.cl/

The Private Investment Fund Copec - UC, managed by the General Fund Manager Security, that has the support of CORFO, provides resources via capital to projects based on technological developments and with strong growth potential.

The UC Anacleto Angelini Innovation Center<sup>19</sup>, a multi-disciplinary meeting space that aims to contribute to the country by linking academia, entrepreneurship and the public sector, in order to generate knowledge and applied innovation that respond to the needs of the country. All companies and ventures that wish to promote a culture of innovation and entrepreneurship can participate. Its construction was made possible through the support of Empresas Copec and its affiliates. At the end of 2018, the center had more than a hundred member companies and more than 270 projects had been financed. Key activities of the year include the active par-

ticipation of the center in the 3xi meetings, an initiative promoted by the Chilean Chamber of Production that seeks to contribute ideas and enrich the discussion to face the challenges of an integral and sustainable development, as a task of everyone. Additionally, the center organized the international meeting "Innovation 2050", which through talks, panels and workshops in Santiago and Concepción, addressed the issues of digital transformation, accessibility, aging of the population and sustainable city, in order to position, promote, discuss and install capabilities linked to these megatrends.









<sup>19</sup> http://centrodeinnovacion.uc.cl/

On the other hand, Arauco struck in 2018 a major agreement with the Massachusetts Institute of Technology (MIT), through the Industrial Liaison Program (ILP). Through this partnership, the company seeks to strengthen its competitive position through the use of new technologies and synergies across different organizations, and continue to develop and strengthen its work in innovation, through participation in different activities, forums and research.

Also in terms of associativity, it should be noted in 2018, Arauco in conjunction with ETEX Group, created the company E2E<sup>20</sup>, an initiative that seeks to improve the habitability of people, developing constructive solutions in wood, with cutting-edge technology, environmentally friendly and of high precision.



Industry, innovation and infrastructure



**SDG 11** Sustainable cities and communities

#### c) Liquefied petroleum gas-based power solutions

Abastible consolidated its Power Solutions area, thanks to a service that is available to all production industries in the country, which seeks to establish a partnership with the customer where the company provides comprehensive energy consultancy for its operation to reach maximum economic, technical and environmental efficiency. Thanks to this effort, the company offers specific and comprehensive solutions tailored to the requirements of each client, through a portfolio of ultra-efficient thermal power plants; heat pumps; cogeneration (electricity-heat) and trigeneration (electricity-heat-cold); optimization of steam thermal power plants; generation of photovoltaic solar thermal and electric energy, together with the production of basic or backup electric power for isolated urban or rural areas.





Industry, innovation and infrastructure

#### 6.4. INNOVATION IN PRODUCTS AND SERVICES

During 2018, the different companies incorporated the following improvements and products or solutions in their businesses:

#### a) Dissolving Pulp

Arauco started the Dissolving Pulp project at the Valdivia pulp mill, which will produce the raw material for a variety of products such as textile fibers, characterized by their softness, high quality and ability to absorb water.



Affordable and clean energy



SDG 8: Decent work and economic growth



SDG 9: Industry, innovation and infrastructure

#### b) +Maqui

Innovarauco<sup>21</sup> introduced +Maqui in the US market. This product is the result of an important participation effort with local communities, allowing to add value to the native and endemic forest through sustainable development of a non-timber forest product.

#### d) Telemetry

Abastible installed more than 3,000 telemetry devices to bulk residential liquefied petroleum gas customers. This solution allows real-time monitoring of the customers' gas tank levels. The information is concentrated on a platform connected to the delivery system; when the gas level reaches a defined minimum safety level, a warning signal is generated, triggering an advance delivery. In addition, the company introduced the Bulk Order Tracking functionality into its app to provide its customers with greater clarity and visibility of the waiting times for an order to arrive.

#### e) Natural gas dedicated vehicle

Terpel, in partnership with Hyundai, developed a vehicle with exclusive conversion to natural gas, allowing customers to access economic savings when compared to the costs associated with using gasoline and generate less environmental impact, due to a more complete combustion than that of liquid fuels, significantly reducing the level of particulate matter, unburned hydrocarbons, carbon monoxide (CO) and greenhouse gases.





SDG 9: Industry, innovation and infrastructure

<sup>&</sup>lt;sup>20</sup> http://www.e2echile.com

<sup>&</sup>lt;sup>21</sup> For further information on the program, visit: http://www.innovarauco.cl/



#### f) E-Commerce

Copec implemented an online self-service platform for dealers to make supply purchases needed for service stations. This platform includes a detailed product catalog for dealers and allows them to schedule delivery dates.

#### g) Electronic billing in Panama

Terpel implemented electronic billing in its service stations in Panama, creating efficiencies in the invoice issuing processes, streamlining support and service processes, and contributing to the company's technological innovation.

#### h) Electromobility

In January 2019, Copec launched South America's most extensive electric vehicle fast charging network, consisting of 700 linear kilometers from Marbella to Concepcion and including 23 chargers. The Copec-Voltex network is the result of the company's commitment to serve its customers, where

and with the technology they need, going even further to the service stations, considering public spaces, shopping centers, parking lots and even homes.



#### i) GOgummy, funny Omega-3

Golden Omega launched a new Omega-3 concentrates product, called GOgummy, consisting of a powder to produce children gummies. It is the result of a partnership with the Australian firm NuMega, whose microencapsulation technology allows to produce a powder with up to 100 mg/g of EPA + DHA in five-gram gummies.



07.

# ENVIRONMENTAL RESPONSIBILITY

102-11 / 302-1 / 303-1 / 304-2 / 304-3 / 305-1 / 305-2 / 305-3 / 305-7 / 306-1 / 306-2

Empresas Copec seeks to promote sustainable use of natural and energy resources of the environment, investing in research, technological innovation and training, to prevent and reduce progressively, continuously and systematically the environmental impacts of its activities, products and services.

For their part, each of its affiliates has environmental management systems, policies, improvement and monitoring programs and tracking systems, that are specific to their business areas.

During 2018, at a consolidated level, US\$ 98.4 million were invested in environmental improvements, 6.7% higher than the previous year.

Company	Environmental investment 2017 (US\$)	Environmental investment 2018 (US\$)
Arauco	88,900,000	94,700,000
Abastible	496,503	342,906
Copec	904,000	595,000
Terpel	1,644,147	2,629,085
Orizon	273,424	172,940
Total	92,218,074	98,439,932

The most significant investment was associated with the construction of the new effluent treatment plant at the Arauco Mill, in Chile, as well as upgrades and optimizations in the TRS gas collection and treatment systems of all pulp mills.



## 7.1. Energy



#### **ENERGY CONSUMPTION 2018 (GJ)**

	Fuel consumption - from non- renewable sources	Fuel consumption - from renewable sources	Purchase for electricity, heating, cooling and steam	Generation for electricity, heating, cooling and steam and not consumed	Sale for electricity, heating, cooling and steam	Total energy consumption
Arauco	11,180,000	91,220,000	330,000	-	2,230,000	100,500,000
Abastible	14,336	-	57,546	-	-	71,882
Copec	1,699,916	-	165,591	-	-	1,865,507
Terpel	57,685	-	594,954	517	-	653,157
Arcoprime	13,853	-	173,883	-	-	187,736
Orizon	506,176	-	36,435	-	-	542,611
Empresas Copec	-	-	243	-	-	243
Total	13,471,966	91,220,000	1,358,652	517	2,230,000	103,821,135

#### **ENERGY CONSUMPTION 2017 (GJ)**

	Fuel consumption - from non- renewable sources	Fuel consumption - from renewable sources	Purchase for electricity, heating, cooling and steam	Generation for electricity, heating, cooling and steam and not consumed	Sale for electricity, heating, cooling and steam	Total energy consumption
Arauco	13,370,000	87,600,000	340,000	-	2,070,000	99,240,000
Abastible	13,431	-	58,558	-	-	71,989
Copec	1,758,727	-	150,119	-	-	1,908,846
Terpel	86,419	-	576,471	-	-	662,890
Arcoprime	13,132	-	132,500	-	-	145,632
Orizon	833,179	-	89,297	-	-	922,476
Empresas Copec	-	-	249	-	-	249
Total	16,074,888	87,600,000	1,347,194		2,070,000	102,952,082

Total energy consumption grew 0,8% from 2017, mainly due to a growth in the consumption of Terpel, associated to the integration of the lubricants business ExxonMobil and the incorporation in the calculation of electricity purchase operations in Ecuador, Peru and the Dominican Republic. This was slightly offset by the decrease in Orizon's energy consumption, as a result of the stoppage of the Canning Plant in Coquimbo and the reduction of production at the Fishmeal Plant in that same town.



In terms of energy, Arauco has been producing clean, renewable energy from forest biomass for more than two decades. As a result, the company is self-sufficient in electricity and surpluses from its industrial plants are delivered back to the energy matrix of the countries in which it operates. Currently, Arauco is one of the leading producers of Non-Conventional Renewable Energy (NCRE) in Chile, with an installed capacity of 606 MW, which allows it to contribute 219 MW to the National Electric System (SEN, by its Spanish acronym). In addition, the affiliate has power generation plants in Argentina and Uruguay, with an installed capacity of 82 MW and 91 MW, respectively. It is worth noting that the company has permanently invested in additional power generation capacity above the usual industry practice.

During 2018, net excess power delivered by Arauco plants totaled 951 GWh, 6% higher than the previous year. In Chile, excess production accounted for approximately 1.3% of the SEN's total generation and its installed power was 0.9% of the grid's total installed capacity.

Additionally, the company implemented various initiatives to reduce steam and electricity consumption. An example of this was the Valdivia mill project in Chile, where a continuous monitoring plan for steam generation was developed to detect potential deviations from the original design.

At the mills of Nueva Aldea, Ponta Grossa and Eugene, in Chile, Brazil and the US, respectively, reductions in energy consumption were achieved thanks to changes in equipment and production processes. Meanwhile, at the St. Stephen plant, in North America, the integrated energy management system was implemented, improving electricity use per m³ by 21% from 2015 to 2018.

Meanwhile, Copec continued to make progress with its Renova program, which seeks to incorporate non-conventional renewable energies and energy efficiency systems into its service stations network. During 2018, photovoltaic panels were installed at the San Francisco de Mostazal Oriente service station and wind turbines at the Pozo Almonte station. To date, 19 service stations have wind energy and 5 of them have also solar energy. In addition, 7 service stations have photovoltaic panels, 4 with solar thermal panels and 2 geothermal energy. During 2019, 3 stations are expected to implement wind turbines and 3 photovoltaic panels.

At the same time, Terpel, in Colombia, installed solar panels at the Baranoa (Atlantic) plant, succeeding to replace 22% of the total energy required by the plant and avoid the emission of almost 11 thousand kg of  $\rm CO_2$  into the environment. Additionally, solar panels were installed at three service stations, accounting for 4.3% of the total energy consumption, thus reducing the emission of more than 4,000 kg of  $\rm CO_2$ . In Peru, meanwhile, the project to switch to LED lighting was implemented, achieving between 25% and 40% savings in service stations for vehicular natural gas.

On the other hand, Inversiones del Nordeste, Abastible's affiliate in Colombia, implemented an energy management system, allowing it to reduce 39% annual electricity consumption. In Peru and Ecuador, lighting was switched to LED technology.





#### 7.2. Water



#### WATER CONSUMPTION 2017 (THOUSAND M<sup>3</sup>) WATER CONSUMPTION 2018 (THOUSAND M<sup>3</sup>)

	Surface water	Ground water	Municipal supply	Total consumption	Surface water	Ground water	Municipal supply	Total consumption
Arauco	159,500	3,100	3,300	165,900	157,500	4,600	2,300	164,400
Abastible	2	67	91	160	9	51	118	178
Copec	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D
Terpel	-	-	1,182	1,182	5	67	1,567	1,638
Arcoprime	-	-	925	925	-	-	1,058	1,058
Orizon	10,480	-	311	10,791	11,147	-	525	11,673
Empresas Copec	-	-	0	0	-	-	0	0
Total	169,982	3,167	5,809	178,958	168,661	4,718	5,568	178,947

At a consolidated level, water consumption was similar to the previous year, with a decrease close to 5.6% in the intensity of specific water consumption at the Arauco pulp mills. This was offset by a 38.6% increase in Terpel water consumption, due to an increase in the number of convenience stores in Panama; and an increase of 14.4% in Arcoprime, consequence of higher consumption in Pronto and Punto stores.

For Arauco, continuous improvement and efficient use of water are key for its performance. Therefore, the company has an Integrated Management System of water resources, which is oriented towards correct management and protection of water courses. In addition, the company monitors the availability of water in the basins from which its facilities are supplied and develops various initiatives to maximize the use of water and study the effects of climate change on the watersheds that constitute its source of water supply. In this regard, it should be noted that water used by Arauco in its production processes comes mainly from surface and groundwater.

Additionally, the company is working on monitoring the water supply/demand ratio in each basin, as well as collaborating with neighboring communities to find solutions due to lack of water. For this purpose, it has the "Desafío Agua" program, an initiative that seeks to create collaborative solutions that facilitate access to water in a climate change scenario, through training, local development strategies based on innovative ideas, research and investment. For example, in Brazil, it has a continuous monitoring

program for watersheds in the province of Paraná. In Argentina, actions are carried out to recover water basins and other critical or sensitive areas, associated with steep slopes, areas associated with hillsides and watercourses, and/or biological corridors, necessary to provide continuity and avoid fragmentation of the landscape.

Meanwhile, Terpel, carries out awareness-raising campaigns among employees about the efficient use of natural resources, while adapting its infrastructure to collect and make best use of rainwater. In Peru, the affiliate launched the Water Efficiency project, involving the installation of faucet regulators to minimize water consumption.

In the case of Terpel, most of the consumption of water comes from the municipal aqueduct or other public or private services. Only in Colombia, water from shallow sources such as wetlands, rivers, lakes and oceans, or groundwater is captured in a smaller proportion.

Orizon, meanwhile, uses for its processes mainly water from surface sources, and in none case to groundwater or wastewater from another organization.







### 7.3. Biodiversity



For Empresas Copec and its affiliates, preservation of ecosystems and protection of biodiversity are priority areas. Thus, affiliates invest every year in various preservation programs and in the development of research studies in these areas.

For its part, Arauco has a Biodiversity and Ecosystem Services Policy that emphasizes assessment and management of the potential effects of production on biodiversity, under the highest responsible forest management international standards. This adds to continuous monitoring and assessment systems, from which specific work plans are established, ensuring continuous improvement of their processes.

Additionally, the company protects existing native forest in its lands, which account for about 25% of its forest heritage. In Chile, for example, these lands are managed through High Conservation Value Areas (HCVA), i.e. forest areas of exceptional or critical importance, where identification, management practices and monitoring are carried out, in order to maintain or increase its conservation value.

In Brazil, meanwhile, native forest is protected by Brazilian legislation, being considered Permanent Preservation Areas and Legal Reserve. On the other hand, in Argentina, the affiliate has more than 118 thousand hectares con-

served as natural areas, including native forests, HCVA, ecological strips, wetlands, drainage areas and protective forests.

During 2018, the company promoted various bio-diversity protection programs, including a research agreement signed with the Universidad de Concepción, in Chile, to study and conserve the Valdivia Gayana species. It is a small subshrub, unique in its type and native to our country, which is present in five HCVA in the Valdivia area. This is in addition to a fauna monitoring program (mastofaunal and avifaunal) in the Arauco forests, a monitoring project of the Yaguarete and Zorro Pitoco (in conjunction with the Saint Louis Zoo-Wild Care Institute), an endangered species declared a natural monument, in Argentina, and monitoring of watersheds in the forests in Brazil.

#### AREA OF NATIVE FOREST AND HCVA

Country	Native Forest Area (in ha)	Native Forest % of forest heritage	HCVA (in ha)	Number Biological HCVA	Number Social, cultural or religious HCVA
Chile	218,516	19%	59,820	37	90
Argentina	118,582	45%	55,771	16	31
Brazil <sup>22</sup>	98,962	40%	10,434	10	7
Total	436,060		126,025	63	128

<sup>&</sup>lt;sup>22</sup> Brazil has a total of 15 HCVA, two of them with biological and social HCVA characteristics at the same time.

In addition, Arauco is committed to not replace native forest and has developed a restoration plan to increase this area favoring threatened species and key sectors for biodiversity or of great importance for the surrounding communities. During 2018, restoration physical area in Chile increased by 2,399 hectares, totaling 4,399 hectares in the process of restoration.

On the other hand, in forest plantations a constant effort is made to monitor and detect the presence of threatened plant and animal species, with specific safeguard measures in the event of finding or sighting of these species in these productive sectors.

## NUMBER OF CONSERVATION LIST SPECIES (IUCN AND OTHERS) FOUND IN ARAUCO'S PROPERTIES

	CHILE		ARGENTINA		BRAZIL	
Category	Fauna	Flora	Fauna	Flora	Fauna	Flora
Critically endangered	0	3	0	1	3	1
Endangered	31	32	3	3	9	12
Vulnerable	1	1	31	0	29	10
Near threatened	0	0	18	2	37	6

Meanwhile, affiliates Copec and Terpel seek to minimize the environmental impact of their fuel storage and distribution processes. For this purpose, they have policies and guidelines for strict environmental compliance, which require operating with the highest safety and control standards in each of the operational phases. In addition, in order to prevent incidents that may damage the environment or human environment, personnel training programs and periodic internal audits are carried out.

Specifically, in the Copec plants, cross-sectional analysis of security breaches, eventual incidents investigations and adoption of concrete measures for a "zero fault" model are carried out.

Terpel, for its part, has an Environmental Management System, which seeks to prevent events, control operating standards, invest in research and development of environmentally friendly products, permanently train those responsible for processes, restore natural habitats in case of negative impacts caused by its activities, and promote environmental awareness among all employees.

On the other hand, Orizon, since 2018 is part of the Environmental and Social Recovery Program of Coronel, which brings together the social, private, governmental sectors and regional government, to carry out specific activities to address issues associated with pollution, the company-community relationship and urban improvements. In addition, the company conducted the audit of its fish meal and fish oil plants in Coquimbo and Coronel, in accordance with the IFFO-RS standard, "The Fishmeal and Fish Oil Organization; Responsible Supply of The Marine Ingredients Organization" and its new IFFO-RS 2.0 Standard, which has greater emphasis on the management of renewable natural resources, the composition of its catches, the requirements associated with the health and safety of people, labor laws, transparency and the concept of the good neighbor and environmental matters. Likewise, the Puerto Montt aquaculture plant received recertification of its operations under the ASC (Aquaculture Stewardship Council) standard.

In addition, Orizon conducts or requests private and state research centers studies that allow it to make its fishing operation compatible with the care and sustainability of marine resources and the environment. The company also participates in the Fisheries Research Institute (Inpesca, by its Spanish acronym), a private non-profit organization that depends on the Fisheries Research Corporation, whose main objective is to develop studies on the major national fisheries and their impact on the coastal marine environment.









### 7.4. Spills

One of the main environmental risks in the productive operations of fuel distributor affiliates is product spills. That is why Terpel and Copec have contingency plans that allow them to act promptly in an event of this kind, have emergency brigades and carry out drills and training to prepare their staff for such situations. The objective is to minimize environmental impact and risks to the safety of people.

Terpel also has spill kits for service station staff, transporters and suppliers; an Environmental Log to track operations; overfill alarms in tanks to prevent spills on plants; and, in 2018, began the construction of mini-dykes in the tanks that receive fuel through multi-purpose pipelines, in order to retain the liquid in case of leaking. Thanks to all this, volume of spills was reduced by 90.7%.

During 2018, the following spill events were recorded:

- **Copec** suffered two spill events. The first one was 0.005 m³ of kerosene dumped into the water, in the town of Quintero; and the other happened during the loading process in the Mejillones plant, where 8 m³ of diesel were spilled on the beach. It should be noted that all these events were quickly contained and remediation work of the affected areas was immediately initiated.
- **Terpel** suffered 32 spill events in Colombia, 9 in Panama and 4 in the Dominican Republic. Specifically, in Colombia, total spill volume was 2,733 gallons, and only two events affected a natural resource. In Panama, meanwhile, 2,794 gallons were spilled, with only one case involving a natural resource. For its part, in the Dominican Republic, there were no events involving natural resources and spills totaled 7 gallons. It is worth noting that no product spill situations occurred in operations in Peru and Ecuador.
- **Arauco** suffered two spill events. One of them occurred in Chile, as a consequence of a minor event due to an effluent seepage from the sewage pipe of the Nueva

Aldea Pulp Mill. The second occurred in Brazil due to a spill of industrial effluent into the rainwater channel at the Ponta Grossa Mill.

• **Orizon** suffered one spill event at the Coronel Sur mill, as a result of the leakage of an industrial liquid waste into a fishing discharge line, leading to 40 tonnes of horse mackerel spilled. As required by regulations, the report was made to the authority, and no probe or complaint was received for the episode.











### 7.5. Climate

### change

Empresas Copec affiliates calculate their carbon footprint annually taking into consideration the standard established by the GHG Protocol.

Greenhouse gas		
emissions	2017	2018
(ton CO <sub>2eq</sub> )		

	Scope 1	Scope 2	Scope 3	Scope 1	Scope 2	Scope 3
Arauco	1,241,591	472,196	2,505,345	N/D	N/D	N/D
Abastible <sup>23</sup>	16,686	N/D	N/D	136,343	N/D	N/D
Copec <sup>24</sup>	62,009	70,280	73,701	54,856	44,969	81,345
Terpel <sup>25</sup>	3,276	17,277	249,816	3,547	17,753	252,222
Arcoprime <sup>26</sup>	3,362	34,079	4,659	N/D	N/D	N/D
Orizon <sup>27</sup>	58,238	8,423	N/D	35,757	8,521	N/D
Total	1,385,162	571,759	2,830,100	230,503	71,243	333,567

During 2018, Arauco measured its carbon footprint considering scopes 1, 2 and 3, an indicator that rose significantly as a result of the fires of that year; 1,194,479  $\rm tCO_{2eq}$  (CH4 and  $\rm NO_2$  gases emissions) and 19,075,590  $\rm tCO_{2eq}$  by biogenic emissions.

Arauco is committed to reducing greenhouse gases and mitigating their impacts, as well as fighting climate change. In that sense, the company's forestry heritage fulfills the natural function of carbon storage, capturing  $\mathrm{CO}_2$  from the atmosphere and releasing oxygen into the air.

In addition, emission reduction of residual forest biomass cogeneration projects has been certified in five power plants in Chile and one in Uruguay (Joint venture with Stora Enso). These plants are registered under internationally recognized standards such as the Clean Development Mechanism (CDM), and enable an annual reduction of around 650 thousand tons of CO<sub>2</sub>. It should be noted that the Viñales project is registered under the Verified Carbon Standard.

During 2018, Arauco certified emission reductions for 754,364 CERs of its projects in Chile. Of this amount, 506,776 were certified under the Verified Carbon Standard and 247,588 under the CDM. In addition, during the year, the initial emission reduction certification for 66,006 CERs of the Punta Pereira project, located in Uruguay, registered under the CDM, was carried out. Meanwhile, 658,512 CERs issued by projects under the CDM were sold in the regulated market (EU Emission trading scheme) and in the global voluntary market.

In the period 2007-2018, the company has contributed in 7.8% of the emission reduction certifications accumulated, under the category of residual biomass power generation projects, registered under the CDM.

For its part, Copec certified the carbon footprint of its operations in Chile, thus complying with international ISO 14064-1: 2006 standard, in accordance with the voluntary verification of its greenhouse gas emissions.

<sup>&</sup>lt;sup>23</sup> Includes CO<sub>2</sub> emissions. It is worth mentioning that the 2017 information only includes Chile, while 2018 incorporates Chile and Peru.

 $<sup>^{\</sup>rm 24}$  Includes  ${\rm CO_{\rm 2},\,CH_{\rm 4},\,HFCs,\,N_{\rm 2}0}$  emissions.

<sup>&</sup>lt;sup>25</sup> Includes CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SO<sub>2</sub>, NO<sub>2</sub> emissions.

<sup>&</sup>lt;sup>26</sup> Includes CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC, SF<sub>6</sub> emissions.

 $<sup>^{\</sup>rm 27}$  Includes  $\rm CO_{\rm 2},\, CH_{\rm 4}$  and  $\rm N_{\rm 2}0$  emissions.

Terpel, meanwhile, has proposed to cut by 10%  $\rm CO_{2eq}$  emissions by 2025, which come from electric power consumption of its own processes. In Colombia, the company managed carbon credits with 112 customers, representing 11.2 million gallons neutralized per month. In Peru, Terpel implemented electrical equipment to reduce greenhouse gas emissions and encouraged switching to vehicular natural gas in transportation to reduce  $\rm CO_2$  emissions per kilometer traveled. In Panama and Ecuador, the company saw an increase in emissions due to the fact that air transport and ExxonMobil facilities were included in the measurement as of this year.

Meanwhile, Orizon continued making improvements in its infrastructure and equipment aimed at achieving a more efficient production and minimizing emission of air pollutants by its boilers and generators. Therefore, polluting gas abatement systems, fuel switching, hydrocyclone systems for particulate matter and atmospheric dispersion studies, among others, where installed.



SDG 3: Good health and well-being



SDG 9: Industry, innovation and infrastructure



SDG 13: Climate action



## 7.6. Other emissions

#### **OTHER EMISSIONS (IN TONS) 2017** NOX SOX COV MP **TRS** CO 10,841 2,558 2,119 4,084 7,055 Arauco 30 Abastible N/D N/D N/D N/D Chile Copec N/D N/DN/D N/D 73 Terpel 1,218 64 244 20 Orizon 114 4

NOX SOX COV MP **TRS** CO 9,704 2,390 2,106 35 7,262 Arauco 5,609 Abastible 157 469 N/D 2 Chile 53 Copec 2 2 98 520 127 Terpel Orizon 244 114 4 20

**OTHER EMISSIONS (IN TONS) 2018** 

Arauco continuously monitors its TRS gas emissions from pulp mills, and has operational controls to minimize any odor events that may occur when these gases are emitted into the atmosphere.

On the other hand, atmospheric emissions of particulate matter are controlled through mitigation equipment, such as gas scrubbers and electrostatic precipitators with efficiencies close to 100%. Emissions generated in wood, sawing process and remanufacturing mills are minimized by sleeve filters, which collect them to be used as biomass.

At the same time, and as part of the investment plan, the company has continued to make significant investments to improve performance of emission abatement equipment and install new equipment.

During 2018, Arauco managed to reduce the number of TRS gas venting by approximately 28% and investments of more than US\$ 13 million were made to upgrade the collection and treatment system for diluted and concentrated non-condensable gases. In Brazil, a gas abatement system was implemented in the impregnators, reducing formaldehyde emissions. Meanwhile, in Argentina, a project was developed to treat gaseous emissions.

On the other hand, Orizon has continued developing studies and implementing projects to reduce odor emissions in its processes, in accordance with the best international practices.





## 7.7. Waste and effluents

Waste from the different processes includes hazardous and non-hazardous waste. That is why its removal, transportation and disposal must be done in compliance with current regulations, while seeking to minimize its generation.

<b>TONNES OF WASTE</b>	<b>TONNES OF WASTE</b>
GENERATED	GENERATED
2017	2018

Company	Hazardous	Non- hazarhous	Hazardous	Non- hazarhous
Arauco	9,880	467,869	11,543	498,719
Abastible <sup>28</sup>	472	395	711	1,526
Copec	N/D	N/D	N/D	N/D
Terpel	1,289	8	3,753	55
Arcoprime	N/D	2,474	N/D	1,526
Orizon	63	2,094	292	2,117
Total	11,704	472,840	16,299	503,943

In the case of Arauco, the largest amount of waste generated in its processes are non-hazardous. In the pulp mills, ash, sands, solid residues from the causticizing process, calcium carbonate, sludge from effluent treatment plants, barks unfit to be burned and others are produced. All of them are kept in its own non-hazardous waste deposits. During 2018, 29% of these wastes went to external companies for their re-evaluation in alternative uses, such as agricultural soil improvers, composting, among others. For 2019, the company set an industrial solid waste re-evaluation target of 45% compared to those kept in waste deposits of each plant.

For its part, at the Arauco Plywood mill in Chile, initiatives were carried out to reintegrate discarded ply into the process and manufacture boards for covers, thus reducing waste generation by 250 tons per year between 2016 and

2018. Additionally, at the Trupan mill the lubricating oil was recovered in the pressing process, reducing 30% the generation of this waste. In Brazil, in the Jaguariaiva panel mill, industrial waste was reduced by 50 thousand m³, thanks to a rehabilitation project in the composting area.

Copec, meanwhile, has the affiliate Via Limpia<sup>29</sup>, which operates from Arica to Punta Arenas offering a solution to customers for spent oil management and removal of wastes that contain oil. It relies on trucks with high-safety technology that remove used lubricating oils, fats, containers, water and solids free of charge, and then place them in environmentally certified sites for storage or recycling.

Arcoprime implemented a Recycling Project in its highway Pronto stores that seeks to invite customers to participate in the sustainable management of their waste. During 2018, this initiative was developed in 3 stores and it is expected to increase to 12 stores in 2019.

Terpel has an alliance with the Used Oil Fund of the Colombian Petroleum Association, through which authorized operators collected 2.9 tons of used oil from the company's work centers. The oil is then place in a processing plant to be used as fuel for industrial use. In addition, the company collects used lubricant drums, which translates into recycling 1,640 drums.

Finally, Orizon is part of the Clean Production Agreement with other fishing companies in the area, reaffirming its commitment to reducing waste. Through this program, companies participate in beach cleanup activities, in order to contribute to a waste-free environment and create awareness in neighboring communities on protection of the aquatic environment.

<sup>&</sup>lt;sup>28</sup>Includes Abastible in Chile and Colombia.

<sup>&</sup>lt;sup>29</sup>www.vialimpia.cl



#### THOUSAND M<sup>3</sup> OF EFFLUENTS

Company	2017	2018
Arauco	130,300	132,400
Orizon	12,812	13,265
Terpel	540	956
Abastible	22	6
Total	143,674	146,627

Monitoring of liquid industrial waste is another cornerstone of the companies' operational management.

In this sense, Arauco has technology for primary and secondary treatment of liquid effluents in all its pulp facilities. In addition, the Valdivia mill has permanent tertiary treatment, and the Nueva Aldea mill when effluents are discharged into the river and not to the sea. Meanwhile, mills of the Wood business treat their effluents either in the systems of the pulp mills or in their own systems.

In Argentina, in the Piray Complex, effluents are treated with a biological reactor, sedimentation tank and equalization lagoon for their discharge into Los Angelitos Stream. Meanwhile, the Chemical Division Mill discharges its effluents into the Parana River after receiving biological treatment. On the other hand, in Brazil and North America, panel mills have biological treatment and their effluents are discharged into the rivers or to nearby water treatment systems.



SDG 6: Clean water and sanitation



SDG 9: Industry, innovation and infrastructure

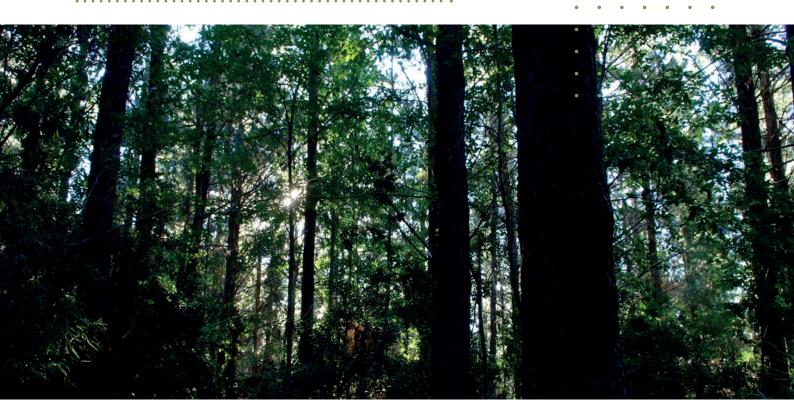




SDG 12: Responsible consumption and production

## 7.8. Enviromentally

## friendly solutions



At the beginning of 2019, Copec opened 23 Voltex fast charging points for electric cars, connecting 700 linear kilometers between Marbella and Concepcion, as well as linking Santiago with Viña del Mar and Santiago with Santo Domingo. This effort responds to a commitment by the company to serve its customers, where and with the technology they need.

Copec also decided to accompany industrial and transport customers in this new path. Thus, the company completed with a passenger transport company a project to implement the hemisphere's first 100% electric interurban bus that covers the Santiago-Rancagua route, for which a charging point was installed in the Alameda terminal.

Abastible, for its part, has an agreement with the Ministry of the Environment for the promotion of the firewood stove replacement program. As a result, this initiative has been implemented in several southern cities, particularly in areas where particulate matter pollution from firewood reached worrying levels. Abastible has already replaced

nearly 300 stoves, in addition to many installations in Family Health Centers, rural posts, schools and foundations. Likewise, the company signed a partnership with the Municipality of Aysen to replace wood-fired heating systems for liquefied petroleum gas heating systems in the commune's educational facilities. The agreement will benefit several schools including la Escuela Almirante Simpson de Chacabuco; Liceo Politécnico A1 of Puerto Aysén; Liceo Raúl Broussain; Escuela Aysén; Escuela Poetisa Gabriela Mistral; Escuela Litoral Austral; Escuela E8 of Mañihuales, in addition to the Aysén sports center. Thanks to this initiative, people has a heating alternative with a heating power 244% greater than certified firewood, while being a clean fuel that does not generate indoor pollution.





SDG 9: Industry, innovation and infrastructure





## 08.

COMMUNITY
411-1/413-1

#### Contribution

## and community dialogue

For Empresas Copec and its affiliates, building ongoing relationships and mutual collaboration with communities is key to create value for both the business and the communities. Thus, through a social investment strategy, various initiatives are promoted that allow generating positive impacts on the quality of life and well-being of people.

During 2018, Empresas Copec and its affiliates contributed US\$ 22.4 million for the development of these initiatives, 5.3% higher than the amount invested in 2017. These contributions, as established by the Corporate Governance Policies in force on donations and sponsorships, were approved by the respective Boards.

Company	Community Investment 2017 (US\$)	Community Investment 2018 (US\$)
Arauco	13,000,000	13,933,950
Copec	4,860,496	5,050,045
Terpel	1,970,443	1,827,355
Empresas Copec	1,134,447	1,065,842
Abastible	158,128	433,981
Arcoprime	39,157	29,837
Orizon	74,998	18,270
Total	21,237,669	22,359,280

## 8.1. Community relations

Encouraging a long-term relationship between communities and companies requires setting up clear, permanent dialogue mechanisms.

Therefore, Copec has a social-community management system, which seeks to go beyond regulatory requirements and contribute to improving the quality of life of neighbors living near its fuel storage plants.

During 2018, major infrastructure projects developed by the company included a community relations plan. These plans were intended to contribute to local development with concrete efforts in the areas of health, infrastructure, access to services and organizational strengthening. More than 1,400 residents took part in the event and 970 working days were held with fishermen's coves, neighborhood associations and other relevant actors, which required an investment of nearly ThUS\$ 210.

Arauco also carries out shared value programs, through a model based on participation and dialogue, the development of high standard and technical excellence projects, collaboration and the development of partnerships.

During 2018, more than 50 local development programs were carried out in 220 municipalities, exceeding US\$ 14 million in social investment. In Chile, for example, the Arauco Local Reputation Index was applied in order to know the assessment of the neighbors about the present and future of the municipalities defined as priority. Additionally, the company carried out more than 33 processes of participation and dialogue with its stakeholders, involving more than 77 thousand people.

On the other hand, Orizon has a Community Relations Policy under which it seeks to integrate into the social and cultural environment where it operates, establishing collaborative networks, developing shared value projects with communities and promoting its development. During 2018, the company's efforts focused on carrying out programs such as "Labor Scholarships", cleaning the coastal area, holding traditional festivities and celebrating locally and nationally important dates, promoting sports, among others.





#### 8.1.1. RELATIONSHIP WITH INDIGENOUS PEOPLES

In Chile, Arauco has a Policy of Relationship with Mapuche Communities<sup>30</sup>, which seeks to create training and employment opportunities for communities located close to its forest operations. The policy sets out the need to maintain ongoing dialogue and consultation processes in order to identify impacts, concerns and opportunities; and together with the communities, establish the way to manage them.

During 2018, and in order to directly involve the community in the development of the Viento Sur wind farm, the company held 128 meetings with neighbors and Mapuche communities, visits to 8 schools and 3 health posts, and 18 communication campaigns with workers, totaling 3,789 people.

In Argentina, meanwhile, Arauco has a Program of Relationship with Guarani Communities, which seeks to create ties between the company and the Mbyá Guaraní community, who circulate and make use of the resources within the company's woodlands in that area.

On the other hand, in Chile, Arauco has a Mapuche Employment Stimulus Program, aimed at neighboring indigenous communities, which allows reporting on the different activities and training programs in which they can participate.



## 8.2. Contribution to local development



#### **8.2.1. RESTORING DREAMS PROGRAM**

Terpel, through its Restoring Dreams program, provides tools and creates spaces to promote reinsertion into the job market for people in a vulnerable situation. To this end, it has defined four lines of action: labor relations, productive projects, shared value and trade fairs.

As regards to labor relations, the company has an alliance with the Agency for Reintegration and Normalization, through which job opportunities were created for 137 people in 2018, who joined as service station workers.

With regard to productive projects, Terpel offers administrative, legal and customer service training for at least one year to people of this condition who seek to start a venture, as well as seed capital to boost their business units. During 2018, the company contributed three projects: a motorcycle workshop in Valledupar; a bakery in Bucaramanga; and a business of baked goods in Natagaima. The number of projects are expected to double in 2019.

On the other hand, in the area of shared value, the company began in 2018 a pilot project to support reincorporated people in the city of Cali, for the creation of its service stations maintenance company. Terpel provided them with technical, administrative and legal training, on recruitment and creation of work teams, service strategies and seed capital. Once incorporated, the company engaged them as paint, cleaning and signaling suppliers through an initial contract to support eight service stations.

Finally, in the field of trade shows, Terpel held eight meetings where 40 entrepreneurs presented their projects to different companies.





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<sup>&</sup>lt;sup>30</sup> For further information in Spanish on the Policy of Relationship with Mapuche Communities, please refer to: Política de Relacionamiento con comunidades mapuches: https://www.arauco.cl/chile/wp-content/uploads/sites/14/2017/07/22-Poli%CC%81tica-Mapuche-FASA-Junio-2012.pdf



#### **8.2.2. RECONSTRUCTION PLAN**

Arauco signed a working agreement with the Government of Chile for the reconstruction of the towns of Santa Olga, Los Aromos and Alto Los Morán, affected by wildfires in 2016 and 2017. This plan included drinking water supply programs, civil works and buffer strips and firewalls. In addition, it considered making land available for emergency equipment, and financing for the construction of a soccer field in Santa Olga.



#### 8.2.3. HOUSING PLAN

Arauco implemented a Housing Plan aimed at providing a definitive housing solution for company employees, contractors and service related companies, and for residents located in the vicinity of its commercial and industrial operations, through high quality villas with innovation in wood, with standards of excellence in municipalities where there is little housing supply.

This is achieved through technical support programs for the application for public subsidies, financial support for hiring third-party experts for the development of projects, search and technical assessment of land for residential purposes, and collaboration and partnership with public and private organizations.

To date, houses have been built in the towns of Curanilahue, Yungay, San José de la Mariquina, Constitución and Los Álamos. Currently, the company is working with 11 committees, which benefited 2,846 people, 2,236 of which are direct and indirect workers and 610 are families of the community.



#### 8.2.4. "RAÍCES" PROGRAM

Copec's "Raíces" Program is an initiative that seeks to promote and rescue the local identity of the different places where its service stations are inserted through technological exterior walls featuring the attractions of each area. To date, there are already 22 service stations that have implemented it.



#### 8.2.5. "PRECONTRATO" PROGRAM

Abastible, through the Emplea Foundation of Hogar de Cristo, provided job training to vulnerable women and migrants, in order to enhance their employability and prepare them for work.





### 8.3. Contribution

### to quality education



#### 8.3.1. BELÉN EDUCA FOUNDATION31

Empresas Copec and its affiliates provide financial resources and actively participate in various initiatives of the Belén Educa Foundation, an institution that has 12 educational institutions located in vulnerable districts of the Metropolitan Region, totaling more than 14,000 students.

One of the most relevant initiatives is the Tutoring Program, which was designed to guide fourth-grade students (equivalent to senior year) in their professional development, guiding their future academic decisions. For this, 40 executives of Empresas Copec and its affiliates meet with the students for one hour every month.

On the other hand, the "Charlas Magistrales" allow executives to visit a school of the Foundation to talk and guide high school students in their process of choosing a career. During 2018, 12 executives from Empresas Copec and its affiliates participated, who gave simultaneous talks to students from the last four years, in order to motivate them to project and expand their horizons.

In addition, the Company collaborates with the Anacleto Angelini Fabbri Scholarship, which is awarded

every year to the most outstanding student of each institution who continues his/her studies in a Technical Training Center or a Professional Institute. The scholarship provides a monthly allowance and professional accompaniment to avoid student desertion.



#### 8.3.2. ENSEÑA CHILE<sup>32</sup>

Empresas Copec supports Enseña Chile, an institution in charge of selecting and training young professionals who wish to devote their first working years to teaching in vulnerable schools, in order to build a network of change agents with the conviction and perspective necessary to impact the educational system, first from the experience in the classroom and then from different sectors. Enseña Chile has supported more than 60 thousand students from educational institutions in the regions of Aysén, Biobío, La Araucanía, Los Ríos, Los Lagos, Metropolitana, Tarapacá and Valparaíso.



<sup>31</sup> www.beleneduca.cl

<sup>32</sup> www.ensenachile.cl

#### 8.3.3. ARAUCO EDUCATIONAL FOUNDATION

Arauco contributes to education through the Arauco Educational Foundation, an organization that designs, develops and implements teachers training programs in the municipalities of Maule, Biobío and Los Ríos to provide better development opportunities for children and young people. In its 29 years, the foundation has held programs in 34 municipalities, benefiting more than 575 schools and more than 5,000 teachers, who teach about 100,000 students every year.

In addition, public-private partnerships have been established with the Ministry of Education and the municipalities, carrying out a work in which all parties involved contribute to the implementation of the teacher's development programs.



#### 8.3.4. TERPEL FOUNDATION<sup>33</sup>

The Terpel Foundation seeks to promote education, encouraging children, youth and adult leadership, and the transformation of environments that benefit communities, being an important ally along the path towards quality education in Colombia.

The Foundation develops five high-impact educational programs, aimed at strengthening competencies in children and young people in vulnerable situations.

- **ESCUELAS QUE APRENDEN®**, seeks to strengthen leadership in the institutional management of schools in managerial, academic, pedagogical and community aspects, and thus improve the effectiveness of the teaching process of children in mathematics and language. During 2018, the program reached 49 educational institutions, closing the year with more than 1,800 teachers and 89,000 students benefited.
- DISEÑA EL CAMBIO®, a global competition between public educational institutions, which aim to offer children and young people the opportunity to express their own ideas to change the world and give space to put

them into practice. A collaborative work that allowed in 2018 to develop socio-emotional competences among more than 391 students from 16 municipalities.

- EL LÍDER EN MÍ®, a leadership model based on effective management habits aimed at teachers to put into practice topics such as proactivity, planning, goals achievement and teamwork in educational activities for primary school children. During 2018, 1,246 teachers and 87 deans from 72 institutions participated in the program, benefiting more than 119 thousand students.
- ¡AVENTURA DE LETRAS!, seeks to promote reading habits in children and young people, parents and teachers, through the donation of public school libraries in different municipalities of the country. To date, more than 17 thousand students from 11 educational institutions have been benefitted by the program.
- MI FUTURO AHORA, a program that supports education in technical, technological and technical-labor careers for attendants (or their children) at service stations, financing 80% of the tuition. During 2018, 132 new participants joined the program, reaching a total of 393 beneficiaries.



#### 8.3.5. CAMPUS ARAUCO

The higher education center, Campus Arauco, was developed from an alliance between Arauco and the Duoc UC Professional Institute, to provide an education of excellence under the work-based learning model for young people in the Province of Arauco in the Biobío Region. It includes more than 30 teachers and 18 collaborators, as well as a Training Center to train the workers of the company Arauco. In 2018, 83 students graduated in Maintenance, Management and Risk Prevention.





<sup>33</sup> http://www.fundacionterpel.org/

#### 8.3.6. "VIVA LEER" PROGRAM

Copec, together with the La Fuente Foundation, carries out the "Viva Leer" program, which seeks to encourage and promote children's reading, through the donation of libraries to vulnerable schools, sale of books in service stations, a volunteer program within the company and its dealers, and a virtual platform to support schools, families and the community.

In its first stage, between 2011 and 2015, 75 libraries were donated from Arica to Punta Arenas, and during its second phase, to be implemented between 2018 and 2022, 45 libraries will be added and a monitoring plan will be developed in all schools that participated in the program in its first years. During 2018, 15 libraries were implemented and the pilot monitoring plan was implemented in 12 schools.

Additionally, and in order to enhance the program, the "Cuento Contigo"<sup>34</sup> project was developed, an initiative that seeks to give free mass access to reading, and to foster the affective bond between parent and child through digital stories available on a web-based platform. Similarly, the company has provided a collection of high-quality books at affordable prices at service stations, allowing to bring more than 2 million books to Chilean homes.

Meanwhile, in 2018, Copec launched the project "Abre un libro, abre tus alas" (Open a book, open your wings), aimed at promoting reading among people deprived of liberty and their families. Thus, 346 thousand books were donated, which were distributed by Gendarmerie to Correctional Centers, families of the inmates and prison officers.



#### 8.3.7. OTHER CONTRIBUTIONS TO EDUCATION

Orizon, in conjunction with Duoc UC, is working on the implementation of a Dual Alternation Program, in order to participate in the professional training of some technical careers and integrate students into the activities of industrial plants to facilitate their learning and degree of specialization.

Additionally, during 2018, Orizon signed a collaboration agreement with the Catholic University of the North Education and Training Center (CEDUC, by its Spanish acronym), which seeks to strengthen ties for the development of joint collaboration projects, aimed at improving competencies and capabilities of the employees, and enhance the employability of future qualified professional technicians, through the development of their internships in the different areas of the company.

At the same time, the company established an agreement to support the nomination of Teupa Rural School, located in Chonchi, Los Lagos Region, to the environmental certification granted by the Ministry of the Environment. For this purpose, Orizon joined the efforts of professionals and employees from its Puerto Montt facility and from the fish farming sites, complemented by the participation of Nodo Chile to support the certification management.

In Peru, meanwhile, the affiliate Solgas, together with the Pachacútec Foundation and its center for studies and community development (CEDEC, by its Spanish acronym), holds intensive theoretical-practical courses to train liquefied petroleum gas installation technicians. Students are trained in the installation of networks and handling of gas equipment in residences and shops, according to current safety regulations. The aim is to develop skills and abilities in young students in a real work environment, giving them greater employability. In the tenth edition developed during 2018, 28 students graduated, totaling 206 since the beginning of the program.





<sup>34</sup> www.cuentocontigo.cl

### 8.4. Corporate

### volunteering



2017 2018

Company	Number of Participants	Volunteer Hours	Number of Participants	Volunteer Hours
Arauco	400	N/D	300	N/D
Abastible	95	2,075	762	1,607
Copec	-	-	144	576
Terpel	527	14,723	724	7,566
Orizon	27	126	39	318
Empresas Copec	5	30	7	42
Total	1,054	16,954	1,976	10,109

During 2018, 1,976 employees of Empresas Copec and its affiliates participated in corporate volunteer initiatives.

Notably, the Arauco Solidarity Marathon in Argentina, a volunteer project for the benefit of institutions in the north of the province of Misiones, considered one of the most important social and sporting events in the north of the province. It was attended by 4,700 participants and

300 volunteers from Arauco, making possible to help 187 community institutions.

Terpel, meanwhile, held 12 volunteer days with 440 workers, who participated in activities to improve the infrastructure of public educational institutions. In total, 4,185 hours were dedicated, benefiting more than 10,500 people.

## 09.

## COMMITTED STAFF

Empresas Copec and its affiliates value those who make up their workforce and are strongly commitment to their occupational health and safety. Similarly, they seek to create the right conditions for the development of all its members, promoting work environments based on values such as respect and honesty, as well as professional quality, training, teamwork and good interpersonal relationships.

This is confirmed by a range of awards and distinctions granted by external entities, and more importantly, it is also ratified by the results of internal employee climate surveys.

On the other hand, respect for the dignity of people and the rejection of discriminatory attitudes on grounds of

race, religion, gender, age, sexual orientation, nationality, marital status and disability, should prevail both in relations with employees and in recruitment processes.

In this sense, arbitrary discrimination cannot be part of recruitment or hiring processes, nor of the definition of terms and conditions of employment, such as tasks to be performed, training, compensation, benefits, promotion, transfer and internal discipline. To ensure compliance with this commitment, the Company and each of its affiliates have made available to employees effective channels to file claims, guaranteeing whistleblowers' identity protection.

## 9.1. Job creation and promotion of diversity<sup>35</sup>

#### **HEADCOUNT BY COMPANY**

		2017			2018		
	Men	Women	Total	Men	Women	Total	Change
Arauco	13,521	1,858	15,379	14,745	2,507	17,252	12%
Abastible	2,684	753	3,437	3,258	808	4,066	18%
Copec	675	254	929	712	263	975	5%
Terpel	1,560	1,339	2,899	1,588	1,379	2,967	2%
Arcoprime	1,674	2,898	4,572	2,050	3,047	5,097	11%
Orizon	682	273	955	793	318	1,111	16%
Empresas Copec	23	7	30	19	7	26	(13%)
Total	20,819	7,382	28,201	23,165	8,329	31,494	12%

<sup>35</sup> Employee data for 2017 varied compared to the previous Sustainability Report as a result of the incorporation of the affiliate Arcoprime.

#### **HEADCOUNT BY COUNTRY**

		2017			2018		
	Men	Women	Total	Men	Women	Total	Change
Chile	11,937	4,654	16,591	13,427	5,449	18,876	14%
Colombia	1,833	773	2,606	2,272	852	3,124	20%
Brazil	2,619	381	3,000	2,563	310	2,873	(4%)
Argentina	1,365	129	1,494	1,396	139	1,535	3%
Mexico and USA	1,373	299	1,672	1,558	307	1,865	12%
Panama	466	555	1,021	436	561	997	(2%)
Peru	557	376	933	614	381	995	7%
Ecuador	348	77	425	364	86	450	6%
Uruguay	215	106	321	458	228	686	114%
Other	106	32	138	78	15	93	(33%)
Total	20,819	7,382	28,201	23,166	8,328	31,494	12%

Headcount reached 31,494 people in 2018, a 12% growth from the previous year. This is mainly explained by changes in headcount calculation at Arauco's joint venture in Uruguay; an increase in Orizon fixed-term staff due to greater fishing availability; a rise in the

number of employees in Abastible's commercial and operational areas; and an increase in the number of employees at Inversiones del Nordeste as contract workers were engaged.

2017 2018

Headcount by Type of Contract	Men	Women	Total	Men	Women	Total
Permanent	92%	83%	90%	92%	86%	90%
Fixed-term	8%	17%	10%	8%	14%	10%

Meanwhile, the greater share of women holds technical or professional positions, reaching 31% of the total work force in 2018. At the executive level, this proportion reaches 19% which represents an increase of 1% over the previous year.

2017	2018

Headcount by position	Men	Women	Men	Women
Executives and managers	82%	18%	81%	19%
Professionals and technicians	71%	29%	69%	31%
Other workers	75%	25%	75%	25%
Total	74%	26%	74%	26%

In terms of age range, 41% of total employees were over 40 years old, and 33% between 30 and 40 years old. The percentage under 30 was unchanged at 25%.

2017	2010
2017	2018

Headcount by age range	Men	Women	Total	Change	Men	Women	Total	Change
Under 30 years old	4,648	2,435	7,083	25%	5,199	2,699	7,898	25%
30 <age<40< td=""><td>7,526</td><td>2,557</td><td>10,083</td><td>36%</td><td>7,756</td><td>2,774</td><td>10,530</td><td>33%</td></age<40<>	7,526	2,557	10,083	36%	7,756	2,774	10,530	33%
Over 40 years old	8,645	2,390	11,035	39%	10,211	2,855	13,066	41%

With regard to people with disabilities, at the end of 2018, they reached 1.01% of total headcount, upper from 2017. Out of the total, 77% were men.

Employees with disabilities	2017	2018
Arauco	120	214
Abastible	14	22
Copec	1	2
Terpel	12	19
Arcoprime	-	51
Orizon	7	9
Total	154	317

In Chile, Arauco is part of the Inclusive Business Network (REIN by its Spanish acronym), a private group focused on strengthening inclusion. During 2018, the affiliate worked on strengthening its inclusion program, training people management teams and leaders, promoting work of people with disabilities, and considering a special benefit plan.

For its part, Terpel, within the framework of its "Amigos del Alma" program, engages people with disabilities and helps them develop communication skills, leadership and work habits. In addition, and as a result of the program, the company sensitized its work force on this matter.

Abastible, meanwhile, launched its Inclusion and Diversity Policy, and implemented a Diversity Program, which will address the inclusion of migrants, people with disabilities and women. With regard to migrants, the company is working with the Jesuit Migrant Service in structuring the work program.

Additionally, Copec promotes the application of family members of workers who have a disability. The candidate search process is supported by the Best Buddies Foundation, an institution that aims to develop socio-labor skills in people with intellectual disabilities and developmental disorders.

On the other hand, for those employees who have cognitive disabilities, the company conducts monitoring or carries out on-the-job tutorials and, in addition, the direct workforce receives an informative talk to support the integration process.







SDG 8: Decent work and economic growth



Industry, innovation and infrastructure



Reduced inequality

Empresas Copec and its affiliates pay their employees salaries above the National Minimum Wage in each of the countries where it operates. It should be noted that the minimum compensation paid by Empresas Copec during 2018, without considering bonds and other variables, was equivalent to 232.8% of Chile's minimum gross salary, which was Ch\$ 288,000 as of December 31, 2018.





## 9.2. Contract employees



As of December 31, 2018, Empresas Copec and its affiliates had 29,055 contract employees, up 6% from the previous year<sup>36</sup>.

Company	2017	2018
Arauco	21,208	23,673
Abastible	2,985	3,010
Copec	736	N/D
Terpel	1,763	1,755
Arcoprime	N/D	N/D
Orizon	590	616
Empresas Copec	1	1
Total	27,283	29,055

Arauco has a significant number of contract workers, approximately 80% of the total staff. Therefore, the company has implemented tools to ensure proper management and engagement. Accordingly, the company requires its contracting companies to pay its employees higher compensations than the national minimum wage, and that all those who provide services in works, facilities and operations have life insurance.





<sup>&</sup>lt;sup>36</sup> Copec and Arcoprime contract employees are not included since data was not available as of this writing.

### 9.3. Turnover

## and internal mobility

Employee turnover and new position opportunities for current employees are other human management indicators that are tracked.

The recruitment rate measures the number of workers who join the company against headcount as of December 31, while the turnover rate measures the accumulated number of employees who leave the company against headcount at the end of the year.

#### **RECRUITMENT RATE<sup>37</sup>**

	2017			2018		
	Men	Women	Total	Men	Women	Total
Arauco	N/D	N/D	7%	18%	37%	21%
Abastible	16%	24%	30%	22%	19%	28%
Copec	10%	7%	9%	11%	10%	11%
Terpel	28%	37%	32%	28%	43%	35%
Orizon	13%	12%	12%	5%	7%	6%
Empresas Copec	26%	0%	20%	0%	0%	0%
Total	4%	9%	12%	16%	21%	19%

#### **TURNOVER RATE<sup>37</sup>**

	2017			2018		
	Men	Women	Total	Men	Women	Total
Arauco	N/D	N/D	0%	11%	15%	11%
Abastible	12%	16%	20%	15%	18%	14%
Copec	7%	8%	7%	6%	6%	6%
Terpel	21%	27%	24%	31%	47%	39%
Orizon	6%	7%	6%	8%	8%	8%
Empresas Copec	22%	0%	17%	11%	0%	8%
Total	3%	7%	5%	11%	14%	12%

During 2018, a total of 5,868 persons were hired, exceeding by 79% previous year's recruitment. Out of this total, 28% were women.

On the other hand, 3,835 employees left the company, with 30% of them being women. The higher turnover rate is mainly explained by Terpel, due to employee leaving because of budgetary adjustments at service stations, low staff performance and contractual changes in the Company in Peru.

Of the total available positions, 23% were filled with internal applicants.

#### Positions filled with internal applicants:

	2017	2018
Arauco	70%	N/D
Abastible	18%	18%
Copec	88%	71%
Terpel	13%	22%
Orizon	20%	29%
Empresas Copec	0%	0%
Total	36%	23%

In the case of Copec, it is worth noting that the company conducts internal selection processes. In that sense, during 2018, a total of 25 internal selection processes were held.

<sup>&</sup>lt;sup>37</sup> Due to the dynamics of the business, the affiliate Arcoprime tracks its contracting rate with another indicator, therefore, it does not appear.

## 9.4. Occupational health and safety

Protection of workers' health and safety is a priority for Empresas Copec and its affiliates. Therefore, during 2018, significant improvements were implemented to reduce the specific risks of each operation.

Arauco has a security management model called "Juntos por una vida major" (Together for a better life), which was developed with the contribution of workers from different business areas of the company. This model identifies three principles: empowered workers, safe teams and a job well done. For their part, employees must make commitments related to security, self-care and mutual care.

Specifically, in the pulp mills and power plants, during 2018 the advances in the model were related to the importance of becoming aware of high potential incidents. This was achieved by working with team leaders to design key behaviors that led to a cultural change, such as cross-visits between the different units to know the model in situ; on-site recognition of work well done; and communicate the model to contractor businessmen, among others.

Meanwhile, Arauco carried out in Chile a safety campaign with forest truck drivers, aimed at eradicating bad driving practices and improving safety.

Additionally, the company informed that the annual performance bonuses of its employees will include the occupational health and safety assessment.

Abastible, for its part, continued to make progress in the regional implementation of a Management and Operational Integrity Model, which considers improvements to ensure safety of people and processes.

In addition, the company trained 1,510 employees in manual handling of loads; launched the regional campaign "Vive la Seguridad", which aims to homogenize the culture of safety and environment within the organization, addressing critical work, defensive driving, UV radiation, recycling and caring for resource issues; and, in Peru, the second regional meeting on safety and operational integrity was held, where each affiliate presented its indicators, management analysis and work plan.

Additionally, a strict Security Management System lays down requirements for gas storage, transport and delivery, and a Transportation Emergencies Integrated System, aimed at preventing accidents in the process of gas transportation and prepare the organization for possible emergencies.

Copec, meanwhile, carried out improvements in its systems and processes in order to minimize security risks, with a clear focus on prevention. Therefore, the company has an area of Environment, Prevention and Safety at its plants, responsible for conducting a cross-sectional analysis of security breaches, investigating possible incidents, and adopting concrete measures for a faultless model. Regarding transportation, Copec has implemented digital systems to measure the level of driver fatigue, sleep quality and incompatibility of work shifts.



#### **IN-HOUSE PERSONNEL ACCIDENT AND LOSS INDICATORS:**

	201	17	2018		
Company	Loss Rate	Accident Rate	Loss Rate	Accident Rate	
Arauco	N/D	4.40	N/D	3.20	
Abastible: Chile Peru Colombia Ecuador	3.28 1.14 0.37 19.00	68.52 68.19 0.00 145.00	2.40 3.07 6.76 7.92	18.79 28.88 41.22 99.73	
Copec	0.65	12.11	0.47	1.39	
Terpel <sup>38</sup>	7.37	6.82	5.60	8.96	
Arcoprime	3.97	54.60	3.90	61.61	
Orizon	2.18	45.85	2.55	29.09	
Empresas Copec	0.00	0.00	0.00	0.00	

During 2018, Arauco's Frequency Index fell 27% and the Severity Index 2 was down 55%, compared to 2017. In addition, 15 facilities had severity and/or frequency rates at World-Class level and 11 facilities are accident-free for more than 1 year.

Copec, for its part, showed positive accident rates, closing 2018 with 17 accidents (AMIK accident rate 50% lower than in 2017: 0.22 accidents per million kilometers traveled, including third-party liability accidents) in a total of 78,425,322 kilometers traveled. In the plants, meanwhile, the average accident rate (AMIM) was 0.0069 accidents per million m³, which compares positively with 0.008 recorded in 2017. This translates into 5 consecutive years of casualties in the accident rate.

On the other hand, Abastible closed the year with a sustained improvement in its safety indicators, reaching the 30% goal as an indicator of total frequency and 26% of severity indicator.

With regard to fatal occupational accidents, Arauco saw the death of a contract driver in the forest business and a contract worker in the cellulose area. It is worth mentioning that the rest of the affiliates and Empresas Copec did not suffer fatalities during 2018. Finally, it is important to note that affiliates have the support of 132 Joint Hygiene and Safety Committees to identify, analyze and prevent accidents and occupational diseases risks.

Joint Hygiene and Safety Committees	2017	2018
Arauco	29	33
Abastible	24	24
Copec	5	7
Terpel	5	5
Arcoprime	54	58
Orizon	4	4
Empresas Copec	0	1
Total	121	132



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<sup>&</sup>lt;sup>38</sup> Only data from Terpel Colombia is included.

## 9.5. Human rights and freedom of association

Empresas Copec and its affiliates respect internationally agreed Human Rights.

The complete rejection of child labor, harassment, discrimination in all its forms and respecting the legal rules on freedom of association is expressed in Empresas Copec's Code of Ethics and in the recent Human Rights Policy. Additionally, the Company promotes work environments based on safe work, respect, honesty, professional quality, training and teamwork.

Terpel, for its part, has a Human Rights Policy in line with core international instruments: Universal Declaration of Human Rights, International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work, Principles of the United Nations Global Compact and Guiding Principles on Business and Human Rights. During 2018, the company added a new clause,

which expresses the value of diversity, inclusion and the principles of equal opportunities.

In addition, Terpel made progress in the development of a pilot self-assessment process of 13 highly critical suppliers in areas related to ethical behavior, human rights, contracting conditions, environmental management, communities, among other aspects.

Arauco, meanwhile, has adhered to the Global Compact initiative in Chile, thus demonstrating its resolute commitment to Human Rights.





#### UNIONIZATION

At the end of 2018, Empresas Copec and its affiliates had 63 unions, which together represent 28% of total employees. This percentage rose over the previous year, mainly due to an increase in unionization of Arauco.

2017 2018

	No. of Unions	No. of union workers	Unionization %	No. of Unions	No. of union workers	Unionization %
Arauco	36	4,561	30%	43	6,413	37%
Abastible	6	937	27%	6	1,139	28%
Copec	3	469	50%	3	508	52%
Terpel	1	45	2%	1	42	1%
Arcoprime	6	197	4%	4	156	3%
Orizon	6	380	58%	6	348	57%
Empresas Copec	-	-	-	-	-	-
Total	58	6,589	24%	63	8,606	28%

On the other hand, the number of employees covered by collective agreements reached 38%.

#### Percentage of employees covered by collective agreements

Company	2017	2018
Arauco	63%	40%
Abastible	43%	40%
Copec	96%	97%
Terpel	77%	76%
Arcoprime	4%	3%
Orizon	10%	17%
Empresas Copec	0%	0%
Total	52%	38%

It should be noted that Copec signed a 3-year collective bargaining agreement during this period.

Meanwhile, Abastible made an important breakthrough with the consolidation of its Labor Relations Management Model, which led to a successful early collective bargaining with the different union groups of the company in Chile.



### 9.6. Employee

### development

Investment in employee development takes the form of initiatives related to training and career development.

#### PERCENTAGE OF TRAINED EMPLOYEES

	2017			2018		
	Men	Women	Total	Men	Women	Total
Arauco	51%	51%	51%	N/D	N/D	65%
Abastible	84%	88%	85%	94%	98%	95%
Copec	81%	85%	82%	84%	81%	83%
Terpel	100%	100%	100%	100%	95%	100%
Arcoprime	N/D	N/D	98%	68%	68%	68%
Orizon	70%	44%	62%	57%	32%	50%
Empresas Copec	100%	100%	100%	100%	100%	100%
Total	58%	47%	71%	31%	54%	73%

#### **AVERAGE TRAINING HOURS**

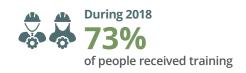
	2017					
	Men	Women	Total	Men	Women	Total
Arauco	20	19	20	N/D	N/D	19
Abastible	58	61	59	60	64	60
Copec	45	49	46	42	38	41
Terpel	33	20	27	46	21	34
Arcoprime	N/D	N/D	7	7	7	7
Orizon	51	55	52	43	19	36
Empresas Copec	20	69	31	41	38	40
Total	28	31	25	41	20	25

During 2018, 73% of people received training, higher than the previous year. On the other hand, 54% of female headcount was trained at least once a year, while the number reached 31% in male headcount.

On the other hand, each employee received an average of 25 hours of training, involving an investment close to US\$ 4.5 million, 33% higher than the previous year.

Specifically, Copec has a training program aimed at strengthening managerial, organizational and technical skills of its employees. In this context, during 2018, 345 courses were given, attended by more than 2,500 participants. On average each employee attended 2.65 courses during the year.

Terpel, meanwhile, has a virtual training platform in Colombia and the Dominican Republic, through which language programs and technical and leadership courses are taught.



In addition, the company implemented, in Colombia, courses in the Class T mobile application. Meanwhile, in Peru, the affiliate started an Executive Coaching program to develop communication and leadership skills for managers.

Meanwhile, Arauco worked on a new technical training model for high-performance workers, establishing ongoing and continuous cycles and using a learning methodology close to the job.

Abastible, for its part, and in line with its new competency-based management model, developed training programs, through which the necessary knowledge and skills can be delivered to employees throughout their working life.



#### **PERFORMANCE REVIEW**

	2017			2018		
	Men	Women	Total	Men	Women	Total
Arauco	N/D	N/D	54%	N/D	N/D	63%
Abastible	16%	28%	19%	18%	34%	21%
Copec	N/D	N/D	98%	N/D	N/D	93%
Terpel	59%	34%	48%	12%	10%	11%
Arcoprime	N/D	N/D	49%	N/D	N/D	49%
Orizon	16%	8%	14%	12%	7%	10%
Empresas Copec	43%	57%	47%	95%	100%	96%
Total	30%	29%	48%	16%	18%	50%

During 2018, Arauco modified its performance assessment process, establishing a unique model for all the countries where it operates, which is simpler and focused on priority skills for the company.

Copec, for its part, has the "Programa Crecer" (Grow Program), designed to identify and manage growth and development opportunities for all its employees. Through voluntary online self-assessments and subsequent reviews by managers, development and training needs are detected, and action plans are defined to enhance work skills in accordance with the profile of the specific position.

Terpel, meanwhile, designed a 180-degree assessment in Colombia, in which employees will be able to evaluate the performance of their immediate supervisor. This methodology will be implemented in the first half of 2019.

On the other hand, Abastible has a program for young professionals, which identifies talents within the company, preparing them to assume greater responsibilities, through individual development plans that include involvement in projects, visibility actions and training. During 2018, this program was launched at the regional level, identifying talents in Peru, Colombia and Ecuador. The implementation, at the regional level, of a skill management model related to security was added.

## 9.7. Work climate



A good working climate is a central part of the business strategy. Therefore, working climate surveys have been consolidated as a global process that allows for the detection of strengths and improvement opportunities, while providing leaders with relevant information to optimize the performance of the teams.

During 2018, Arauco conducted the climate survey in Chile, Brazil, Argentina and North America, while introducing it in its commercial offices in Peru, Mexico, Colombia and the Netherlands.

For its part, Copec carried out a new climate assessment, which resulted in an overall satisfaction of 74.5%, higher than the previous year.

During 2018, a 25-day management program was developed, in which employees participated in the design of action plans by work teams, and an accompaniment system was developed for certain areas with satisfaction gaps.

Terpel, meanwhile, assessed its work environment conducting the Great Place to Work® survey in which 1,236 employees participated, accounting for 88.1% of the company's total employees. As a result of this survey, action plans will be developed for each vice-presidency during 2019.

On the other hand, Abastible conducted in Chile its annual organizational climate survey, obtaining 88% of favorable responses and 96% global satisfaction.

2017 2018

Company	Response %	Favourability %	Response %	Favourability %
Arauco	79%	N/D	77%	72%
Abastible: Chile Peru Colombia Ecuador	86% 82% 100% 98%	83% 79% 95% 92%	88% 87% 98% 98%	88% 81% 94% 93%
Copec	89%	74%	91%	76%
Terpel	-	-	88%	66%
Arcoprime	83%	N/D	84%	N/D
Orizon	92%	69%	100%	73%
Empresas Copec	-	-	-	-

## 10.

# ABOUT THIS REPORT

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#### **SCOPE AND COVERAGE**

Empresas Copec's fourth Sustainability Report gives an account of its economic, social and environmental performance for the period January 1 to December 31, 2018 (for previous reports, go to www.empresascopec.cl)

It includes operations in each of the countries where it operates, and unless otherwise indicated, consolidates information from the following affiliates: Arauco, Abastible, Copec, Terpel and Orizon, namely, those companies where the Company holds more than 50% interest. Also, as of this year, the result of Copec affiliate Arcoprime's performance is included in a detailed manner.

#### **METHODOLOGY**

This report has been prepared in accordance with the Core option of GRI Standards (Global Reporting Initiative.)

The process to draft the report was led by Empresas Copec Corporate Affairs Division, responsible for collecting and consolidating the data of each of the companies. The document was internally validated by the same division.

For the definition of the contents and material matters, the GRI guidelines were followed, particularly in relation to the application of the principles of content and quality.

#### **GRI PRINCIPLES**

Below is a brief description of the procedures applied to respond to each of the principles:

#### GRI PRINCIPLE MAIN ACTIVITIES CARRIED OUT TO COMPLY WITH

Including stakeholders	The document's content includes the information requirements from the financial market and sustainability indexes most important to the Company.
Sustainability context	As of this year, Empresas Copec's contribution to United Nations Sustainable Development Goals, which are stated in each chapter, are included.
Materiality	Opinions of stakeholders and the Company and its affiliates' strategic objectives were considered to identify the topics included in this document. In addition, specific interviews were conducted with executives of the parent company and its affiliates, and annual reports and sustainability reports published by each company were taken into consideration.
Completeness	This report includes cross-cutting material and particular issues of each company. All material events occurred in 2018 of the affiliates described in the scope are also included.
Accuracy	The quantitative information included in this Report has been collected by staff from each of the affiliates. Description of the qualitative indicators results from the collection of internal records and specific interviews with representatives from each of them.
Balance	This Report incorporates the positive and negative results of the management, with the aim of giving the reader a comprehensive view of 2018 performance.
Clarity	This document was prepared considering that the information is easily accessible. Therefore, it is published on the website: www.empresascopec.cl, in the sustainability section. In addition, a direct and clear language was used to facilitate reading and understanding of what was reported. Techniques and bases for measuring data, as well as significant changes compared to previous periods, are reported throughout the Report where appropriate.
Comparability	This document includes information on the 2017 and 2018 financial years, in order to assess the progress made between both periods. For indicators and affiliates that had specific management goals, such KPIs were included.
Reliability	The information contained in this document has not been subject to verification by a third party. However, the information was prepared by the responsible area of each company, and consolidated in the matrix, by a specialized team.
Timeliness	The document is released in August 2019.

For further information about this report, please contact:

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#### **MATERIALITY**

The Materiality exercise required by the GRI methodology was carried out considering the results of the interviews conducted with key executives of Empresas Copec and its affiliates included in the Report. From these meetings, the most important milestones, impacts and aspects were identified in each of the companies during the period (internal analysis).

On the other hand, queries, questionnaires and questions raised by one of the Company's key stakeholders were included: investors and market analysts (external analysis).

From these two dimensions, the material or relevant issues to be included in this document were defined, as well as their degree of coverage, namely, where the impacts are generated.

Topic	Priority for stakeholders	Empresas Copec	Arauco	Copec	Terpel	Abastible	Orizon	Chapter in the Sustainability Report
Water	Medium		•				•	07
Anti-corruption	High	•	•	•	•	•	•	03
Contribution to Local Development	Low	•	•	•	•			08
Support of Local Communities	Medium		•	•	•		•	08
Biodiversity	Medium		•				•	07
Socioeconomic Compliance	Low	•						04
<b>Economic Performance</b>	High	•	•	•	•	•	•	04
Diversity and Equal Opportunities	Medium	•	•	•	•	•	•	09
Education	Medium	•	•	•	•			08
Effluents and Wastes	Medium		•					07
Emissions	High		•	•		•		07
Employment	High	•	•	•	•	•	•	09
Energy	High		•	•	•	•	•	07
<b>Human Rights Assessment</b>	Medium	•			•			09
<b>Education and Training</b>	Medium	•	•	•	•	•	•	09
Risk Management	Low	•	•	•	•	•	•	03
Corporate Governance	High	•	•	•	•	•	•	03
Innovation	Medium	•	•	•	•	•	•	06
Internationalization	Medium	•	•	•		•		04
Freedom of Association and Collective Bargaining	High		•	•	•	•	•	09
Antitrust	High	•	•	•	•	•	•	03
<b>Procurement Practices</b>	Medium		•		•			05
Relationship with Indigenous Peoples	Medium		•					08
Investor Relations	High	•						03
Occupational Health and Safety	High	•	•	•	•	•	•	09
<b>Customer Satisfaction</b>	Low			•	•	•		05

#### GRI

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Anti-corruption	GRI 205: Anti-corruption, 2016	25	GRI 205-2	Communication and training about anti- corruption policies and procedures	25
Contribution to Local Development		71		Own indicators	71
Support of Local Communities	GRI 413: Local Communities, 2016	69	GRI 413-1	Operations with local community participation, impact assessments and development programs	69
Biodiversity	GRI 304: Biodiversity, 2016	55	GRI 304-2 GRI 304-3	Significant impacts of activities, products and services on biodiversity Habitats protected or restored	55
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