



EMPRESAS COPEC

# CLIMATE CHANGE ROADMAP

EMPRESAS COPEC - 2023



# EMPRESAS COPEC

Chilean industrial group focused in natural resources and energy

Business Units

## FORESTRY

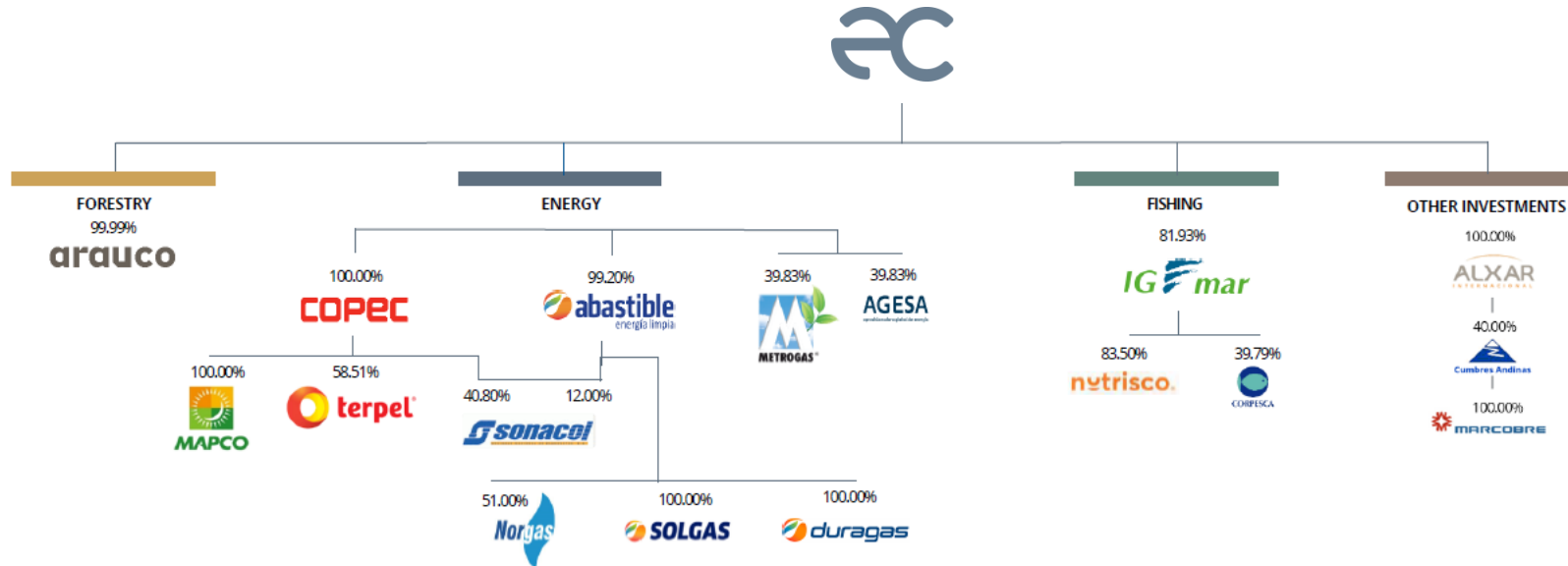
- Second largest global market pulp producer
- Second largest global wood panels producer
- Largest sawn timber producer in LatAm

## ENERGY

- Main distributor of liquid fuels in Chile and Colombia
- Largest distributor of liquefied gas in Chile, Colombia, Peru and Ecuador
- Stake in the largest natural gas distributor in Chile

## OTHERS

- Participates in metal mining
- Relevant operations in the fishing industry



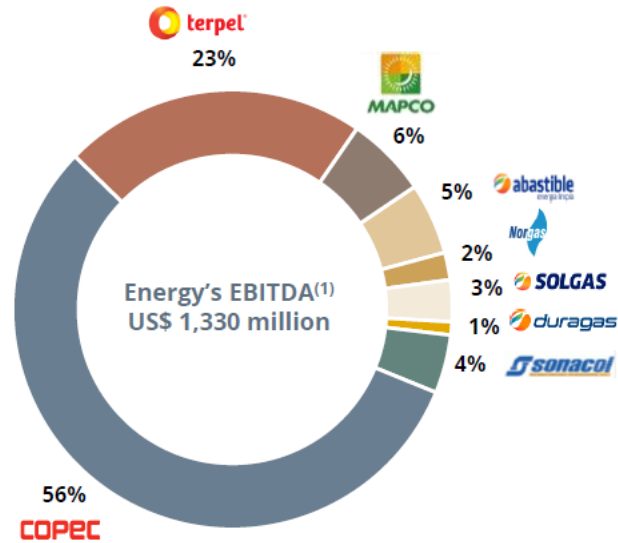


## STRATEGIC FOCUS

Diversification within core businesses of Energy and Forestry

### MULTIPRODUCT ENERGY PLATFORM <sup>(1)</sup>

*Includes liquid fuels, liquid gas, natural gas, and infrastructure*

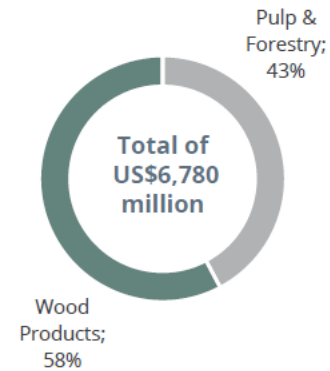


### DIVERSIFIED FORESTRY BUSINESS

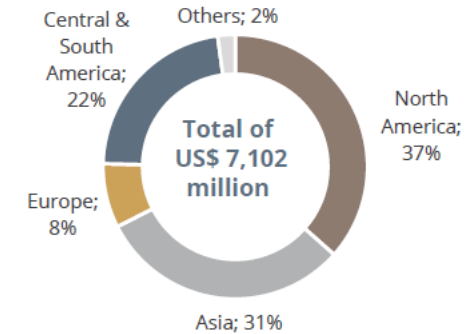
*Exposure to wood pulp, panels and other wood products in the forestry business*

#### Arauco Consolidated Revenues

##### By Product <sup>(2)</sup>



##### By Region <sup>(3)</sup>



(1) Figures as of March 2023

(2) Figures as of March 2023 (L12M)

(3) By country of destination. Includes sales of goods produced in each country plus exports to each country. Figures as of December 2022



## CORPORATE STRATEGY

Empresas Copec is a world-class company that seeks to deliver an attractive level of profitability in the long term to its investors and to contribute to the development of Chile and the different countries where it operates.

To this end, the Company mainly invests in energy and natural resources and, in general, in business areas where it can create value in a sustainable manner.

In the development of its activities, it strives to be a good citizen, and attends to and respects the interests of shareholders, employees, partners, suppliers, customers, communities and all parties with whom it is involved in one way or another.



### LEADERSHIP

The positioning reached by Empresas Copec, one of the main economic business groups in Chile, is the result of an efficient cost structure, a permanent value offer and a conservative financial profile.



### EFFICIENCY

The Company significantly increases the scale of its operations, thereby achieving important cost reductions, increasing efficiency and having solid competitive positions that allow it to overcome the ups and downs of sectors that are cyclical in nature.



### VALUE PROPOSITION

Empresas Copec operates without borders, exporting its products to more than 80 countries on five continents through market diversification and the development of higher value-added products.



### FINANCIAL CAPACITY

In addition to the significant cash generation capacity of its own businesses, the Company's low level of indebtedness allows it to take better advantage of market opportunities, facilitating the investment process and obtaining new resources when necessary.

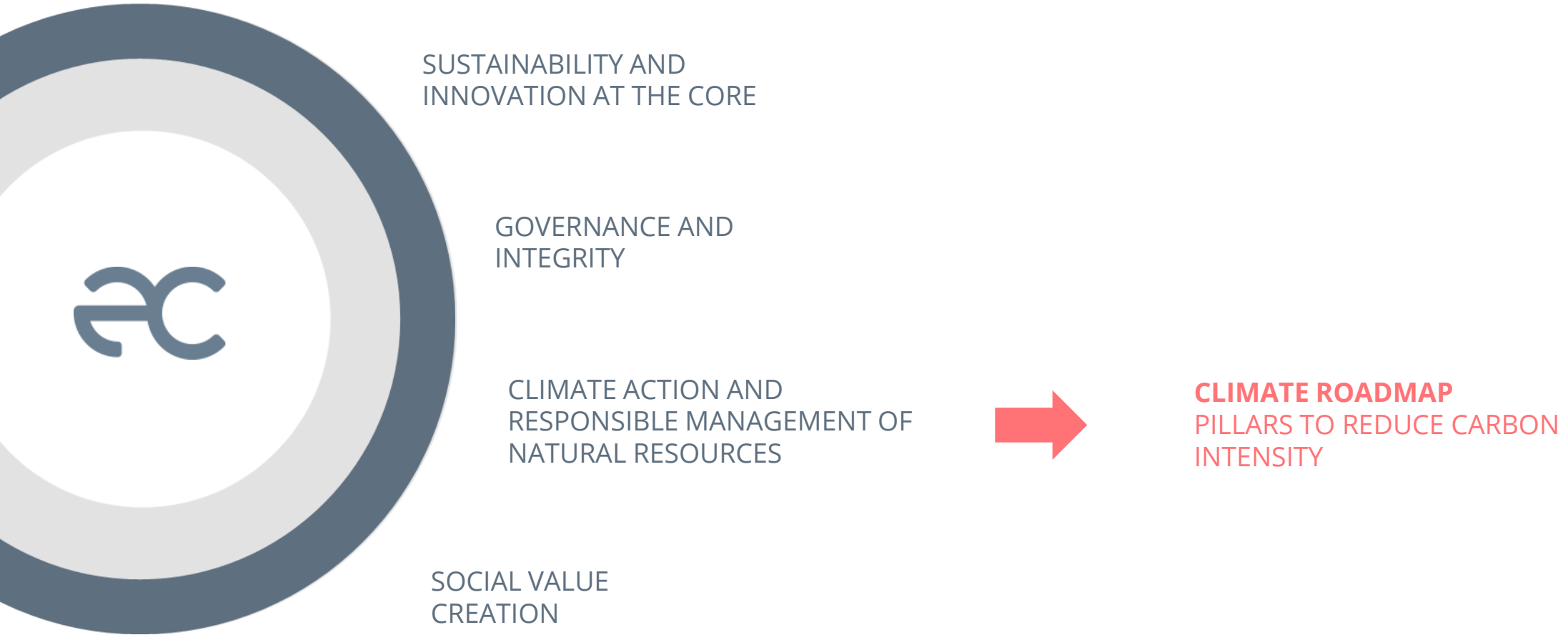


### ONE SPIRIT

The common values and principles shared by Empresas Copec and its affiliates inspire its management throughout eight decades of business activity, favoring leadership and a solid reputation.



## A SUSTAINABLE MANAGEMENT MODEL IN ACTION





## CLIMATE APPROACH OVERVIEW

### MOVING TOWARDS A LOW CARBON ECONOMY



#### FORESTRY SECTOR

Empresas Copec seeks to consolidate a business model that is resilient to climate change, taking into consideration the new scenario, together with the opportunities and physical and transition risks it entails.

To strengthen this commitment, the subsidiaries ARAUCO, Copec and Abastible are in the process of identifying their climate change risks and opportunities under the international methodology of the Task Force on Climate-related Financial Disclosures (TCFD), based on four axes: governance, strategy, risk management, and objectives and metrics.

ARAUCO participates in the supply of renewable natural resources that can drive sustainable growth, replacing polluting alternatives for various uses in the construction, furniture, paper and textile industries.

In addition, its forest assets have the capacity to absorb carbon dioxide and transform it into oxygen, contributing to the mitigation of climate change. Forests are a climate stabilizing force, as they regulate ecosystems, protect biodiversity and play an integral role in the carbon cycle.



#### ENERGY SECTOR

The fuel industry faces unique challenges driven by the need to harmonize the growing demand for energy with the diversification of the energy matrix and a growing need to respond to climate change and the decarbonization of the economy.

As part of the energy transition, the Company and its subsidiaries have a roadmap to evolve from the distribution of fuels to the distribution of clean energy.

In this regard, Empresas Copec has focused on a diversified offer that includes liquefied gas as a transition fuel, renewable energy, green hydrogen and promotion of electromobility.



#### OTHER DIVISIONS

Copper is a key enabler for the energy transition and its demand is projected to rise significantly over the next decade.

Empresas Copec participates in the production of copper, which is a fundamental input for electromobility, wind and solar energy, energy storage and transportation.



## CLIMATE TARGETS & MILESTONES

**2020**

**ARAUCO:**  
FIRST CERTIFIED CARBON NEUTRAL FORESTRY COMPANY.

**2023 2024 2025**

**DURAGAS:**  
CERTIFY THE CARBON NEUTRALITY OF ITS CORPORATE FOOTPRINT.

**ORIZON:**  
OPERATE WITH 100% RENEWABLE ENERGY.

**TERPEL:**  
REDUCE SCOPE 2 CARBON FOOTPRINT IN COLOMBIA BY 10% COMPARED TO 2020.

**2030**

**COPEC AND ARCOPRIME:**  
ACHIEVE CARBON NEUTRALITY, CONSIDERING ALL SCOPE 1 & 2 EMISSIONS.

**ARAUCO:**  
REDUCE 1 MILLION TONS OF CO<sub>2</sub>EQ, COMPARED TO 2019, ALIGNED WITH SCIENCE BASED TARGETS.

**2050**

**EMPRESAS COPEC:**  
AIM TO BE NET ZERO FOR GHGS, THROUGH A SCIENCE-BASED PLAN, INCLUDING NATURAL CLIMATE SOLUTIONS AND OTHERS. GHGS INCLUDE SCOPE 1, 2 AND THE MOST RELEVANT ELEMENTS OF SCOPE 3.

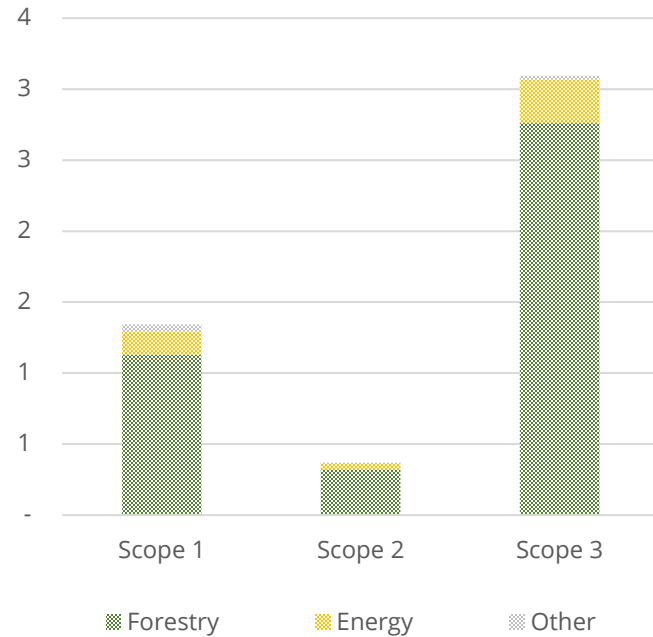
**COPEC:**  
DISTRIBUTE AND MARKET A HIGHER PROPORTION OF RENEWABLE ENERGIES OVER FOSSIL FUELS.

**ARAUCO:**  
BE A NATURE NET POSITIVE COMPANY, THROUGH AN ABC STRATEGY: WATER CARE, BIODIVERSITY CONSERVATION AND REDUCTION OF CO<sub>2</sub> IN THE ATMOSPHERE.

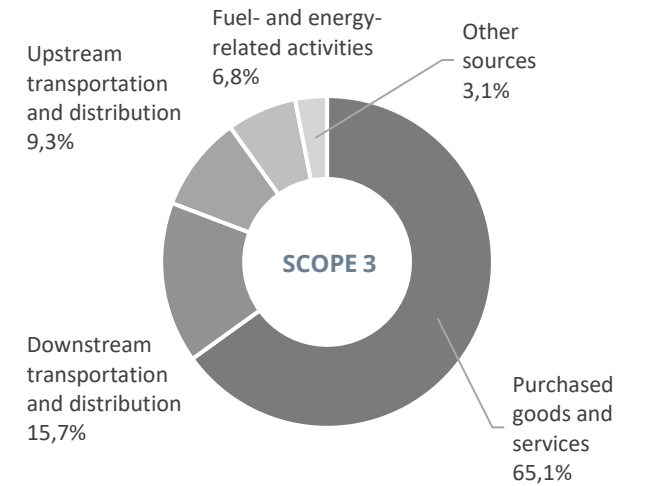
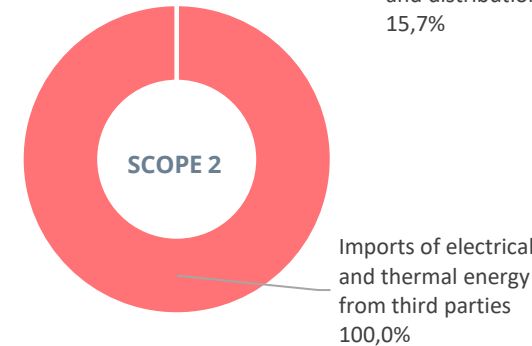
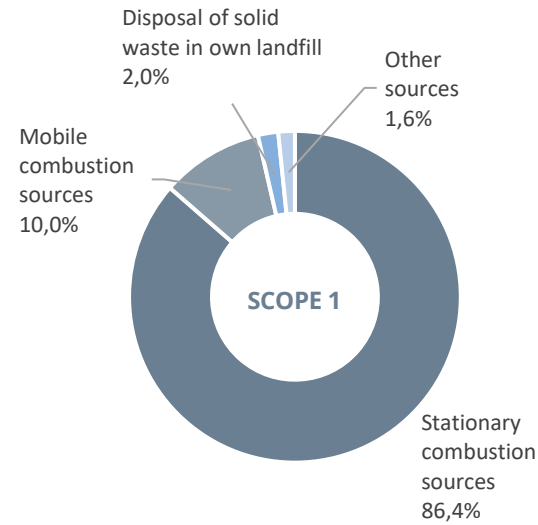


## CLIMATE METRICS

Greenhouse gas emissions in 2022  
in million tCO<sub>2</sub>e<sub>q</sub>



## MAIN CARBON EMISSION SOURCES



**Scope 1:** Includes fuel consumption at service stations, distribution centers, fuel and distribution plants, maritime transport, land logistics and soil emissions associated with the use of agrochemicals and forest fires. Among the fuels used are considered: diesel, gasoline, natural gas, LPG and light fuel oil.

**Scope 2:** According to the GHG Protocol, it corresponds to the indirect GHG emissions, product of the generation of electricity, heat, steam and refrigeration acquired and consumed by the business units over which there is operational control. Includes electricity purchased by service stations, fuel and bottling plants, distribution centers, offices, laboratories.

**Scope 3:** include the categories of goods and services purchased; fuel or energy related activities; upstream transportation and distribution; waste generated in operation; and business travel. These last two categories are not included in the 2022 measurement.





## APPROACH BY SECTOR



### FORESTRY SECTOR

ARAUCO's forest assets are a source of CO<sub>2</sub> capture, allowing climate change mitigation. The subsidiary became the first forestry company in the world to certify its carbon neutrality in 2020. In addition, it made new commitments to reduce its emissions by 2030 through increasingly environmentally friendly production processes.

Efforts to move towards a circular and sustainable bioeconomy over time, point to a climate action plan with three main focuses:

1. Science-based mitigation of emissions, progressively replacing fossil fuels in productive processes and incorporating a greater share of clean and renewable energies to the matrix.
2. Restoration of 50 thousand hectares of native forest, a goal that will be in line with nationally determined contributions (NDC).
3. Circular bioeconomy, where the company has established the goal of zero waste by 2030.

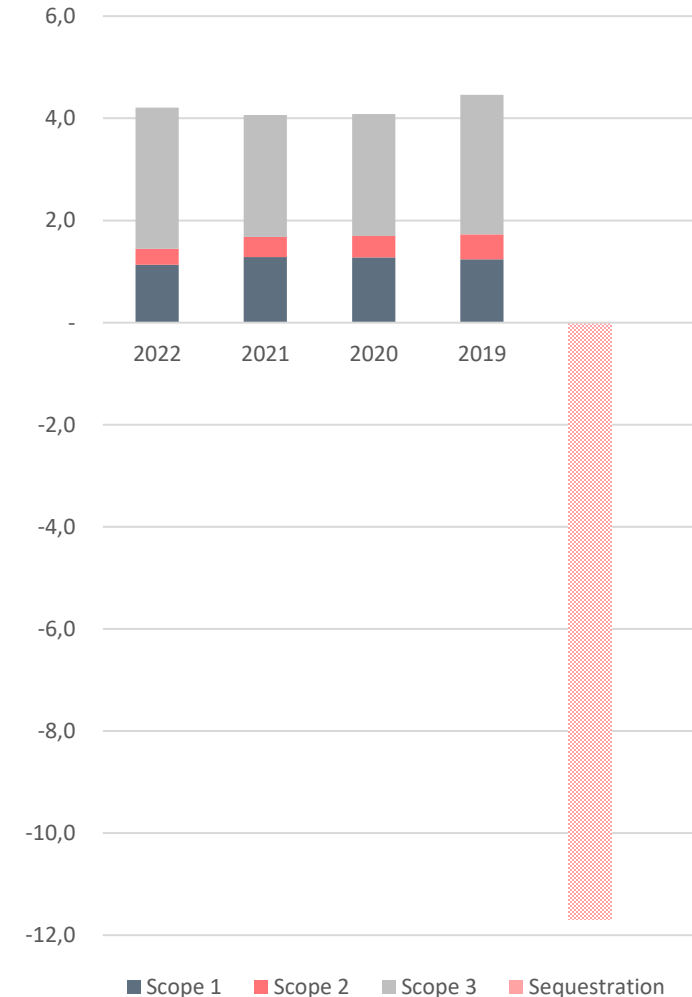
ARAUCO mitigates the risks of climate change by placing special focus on sustainable production, which considers physical risks, including decreased rainfall and extreme events such as forest fires. The company has developed opportunities such as the conservation of native forests and their eco-systemic services that act as a buffer against climate risks in synergy with the generation of carbon credits.

In the wood products business, the company remains committed to reducing emissions through the revaluation of non-industrial solid waste and the generation of carbon credits by planting forests. For every cubic meter of wood used in construction, one ton of carbon is stored.

ARAUCO manages its forestry assets in Chile, Argentina, Brazil and Uruguay under Responsible Forest Management practices, and its production processes are certified under the most demanding environmental, social and economic standards worldwide.

Responsible plantation management reduces pressure on native forests, given that deforestation and degradation of these forests account for 20% of global CO<sub>2</sub> emissions.

FORESTRY  
Greenhouse gas emissions  
in million tCO<sub>2</sub>eq





## ENERGY SECTOR

Copec's Climate Change Strategy covers three areas of action: climate change focused on reducing greenhouse gas emissions; circular economy, and biodiversity.

Based on these areas, the action plans for each one establish goals and metrics, with a permanent monitoring system, aiming at synergies and collaborative networks in all areas.

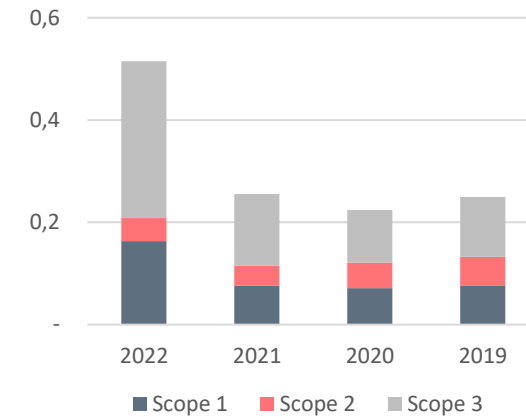
Copec is implementing a mitigation plan that seeks to directly reduce its greenhouse gas emissions through the implementation of more sustainable practices and technologies. With respect to their indirect carbon footprint, Copec and Terpel have commitments to move towards a more sustainable product and service offering. Additionally, Copec allows its customers to offset their footprint through the purchase of carbon credits.

Copec set the goal of distributing and selling a higher proportion of renewable energies than fossil fuels by 2050. Copec is developing business opportunities in renewable energies and in the promotion of electromobility.

On the other hand, Abastible's objective is to deliver clean energy through liquefied gas, which produces less CO<sub>2</sub> from its combustion, thus contributing to the development of a low-carbon economy. This has been an opportunity for Abastible, which is developing liquefied gas projects combined with NCRE.

## ENERGY

Greenhouse gas emissions<sup>1</sup>  
in million tCO<sub>2</sub>eq



<sup>1</sup> Scope 3 emissions reported excludes use of sold products category.



## PILLARS TO REDUCE CARBON INTENSITY



**1.**  
**ENERGY EFFICIENCY  
& LOW-CARBON  
SOURCES**

*SCOPE 1 & 2 REDUCTION*



**2.**  
**LOW-CARBON  
PORTFOLIO**

*SCOPE 3 REDUCTION*



**3.**  
**CARBON CAPTURE  
& STORAGE**

*POSITIVE CONTRIBUTION*



## PILLARS TO REDUCE CARBON INTENSITY



### 1. ENERGY EFFICIENCY & LOW-CARBON SOURCES

#### a. Energy efficiency in operations

- Certified environmental management systems (ISO 14,001 standard)
- Environmental investments to optimize operations (US\$58 million)

#### b. Renewable energy sources

- Self-sufficient renewable power in forestry operations
- Renewable generation and supply in service stations
- Renewable supply in fishing operations

#### c. Carbon credit schemes

- Certified Emission Reductions issued in forestry operations
- Emission offsets



### 2. LOW-CARBON PORTFOLIO

#### a. Leading electromobility

- Copec Voltex is EV charging infrastructure leader

#### b. Moving towards renewable energies

- Flux Solar develops photovoltaic solar energy
- Abastible expands role as electricity trader
- ARAUCO relevant renewable energy supplier
- Energy integrated solutions (storage)

#### c. Exploring early-stage value creation opportunities

- WIND Copec is an innovation platform with investment focus on Energy, Mobility and Convenience
- Affordable green hydrogen production at scale
- Green hydrogen in Chile's air transport sector

#### d. New developments to complement existing assets

- Producing critical inputs for energy transition (copper mine)
- Copec enters high growth potential markets that complement its business model



### 3. CARBON CAPTURE

#### a. Atmospheric carbon sequestration

- Forests and forest-based products sequestered carbon in their direct operations as well as along their value chain

#### b. Carbon storage in products

- Innovation and R&D to consolidate wood-based solutions in the market and their value for the construction, furniture and interior design sectors, as an alternative to polluting products



# 1. ENERGY EFFICIENCY & LOW CARBON SOURCES

## a. Energy efficiency in operations

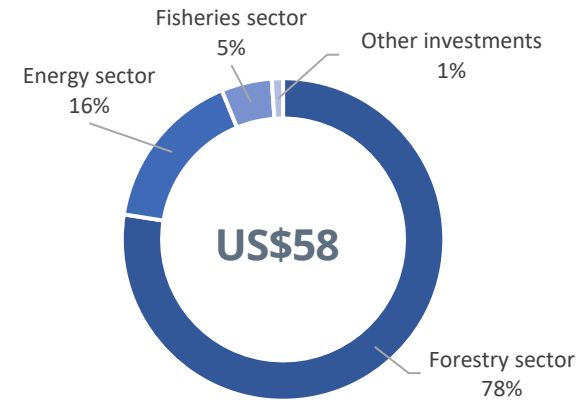
### *Certified environmental management systems*

- Empresas Copec and its subsidiaries are firmly committed to operating responsibly and in harmony with the environment. To this end, they frame their performance in management systems that seek to go beyond regulatory compliance, promoting innovation, the sustainable management of resources and the reduction of emissions at a global level. It should be noted that ARAUCO, Copec, Terpel, Abastible and their subsidiaries have environmental management systems certified under the ISO 14,001 standard.

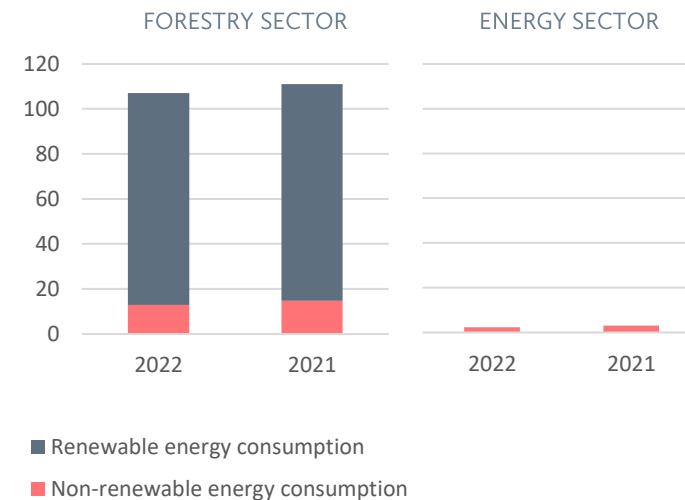
### *Environmental investments to optimize operations*

- On aggregated basis, the Company's subsidiaries made investments of US\$58 million in environmental improvements in 2022. Includes investment projects for the control and management of hazardous liquids, the energy optimization of the waters in industrial plants, the expansion of industrial solid waste landfills for future waste management, among other environmental improvements.

Environmental investment in 2022  
in million US\$



Energy consumption  
in million GJ





## **b. Renewable energy sources**

### *Self-sufficient renewable power in forestry operations*

- For more than 20 years, ARAUCO has produced non-conventional renewable energy from forest biomass. This has been considered a clean energy source valued for being safe, efficient and with lower emissions.

### *Renewable generation and supply in service stations*

- In 2022, Copec neutralized the emissions of its 678 service stations throughout Chile, which will allow it to achieve total carbon neutrality before 2030. It has 19 stations with wind turbines, 10 with photovoltaic panels, four with solar thermal panels and two with geothermal energy.
- Additionally, 63 service stations and five plants were supplied with renewable energy from Cerro Dominador, one of the world's most innovative solar thermal projects located in the Atacama Desert.

### *Renewable supply in fishing operations*

- In 2023, Orizon will be operating with 100% renewable energy, thanks to an agreement with Emoac, a Copec subsidiary and leader in Integrated Energy Intelligence, which will provide electricity supply for a period of at least four years. Orizon installed economizers in boilers and worked on waste management at its plants.



### c. Carbon credit schemes

#### *Certified Emission Reductions issued in forestry operations*

- ARAUCO has developed emission reduction projects that generate certified carbon credits and has five renewable energy generation plants under the Clean Development Mechanism (CDM). These projects allow the annual reduction of around 650,000 tons of CO<sub>2</sub>.
- In 2022, 267,720 Certified Emission Reductions (CERs) issued in previous years to corporate businesses were traded under the CDM, directly and through intermediaries, as well as 456,905 million Verified Carbon Units (VCU) from the Viñales cogeneration plant, registered under the internationally recognized Verra standard.
- To seize this opportunity, ARAUCO has undertaken continuous investments in R+D+i aimed at the development and implementation of CDM-type projects. For example, the development of the Viento Sur wind farm project, located in the Arauco area and consisting of the installation of 43 wind turbines of up to 5 MWh of power.

#### *Emission offsets*

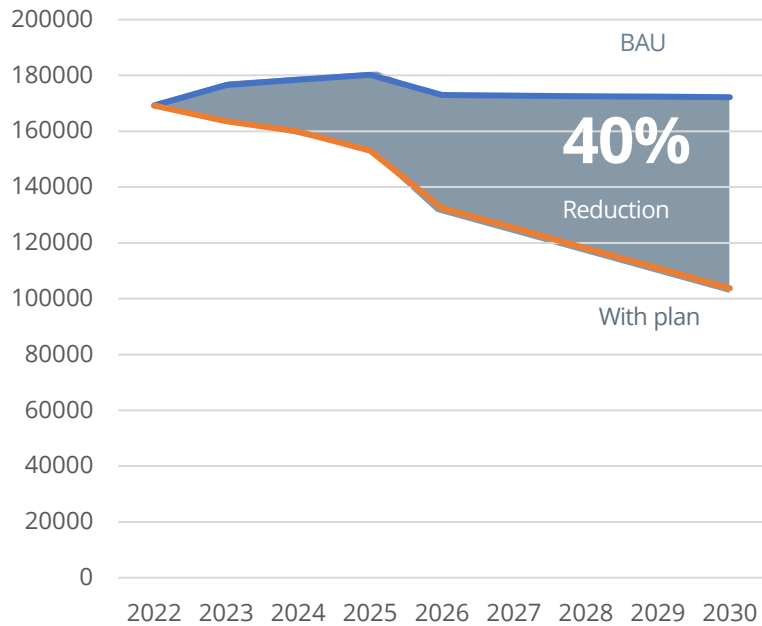
- Copec invests in renewable energy projects to neutralize the balance of the carbon footprint of Copec service stations and that of Copec's customers. The 2021 emissions were offset during 2022 through the purchase of verified carbon credits from a combination of solar energy, wind energy and reforestation projects in Latin America.
- Similarly, Duragas invests in carbon credits and is the first company in the liquefied gas sector in Ecuador to be certified carbon neutral.



**EXAMPLE OF BEST PRACTICE:  
MITIGATION PLAN IN THE ENERGY SECTOR**

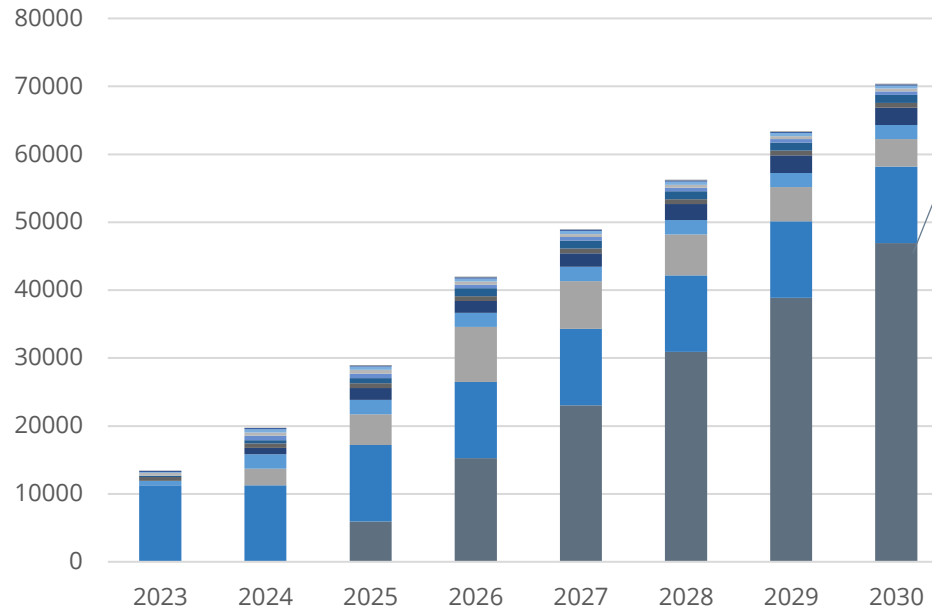
Copec is implementing a mitigation plan that seeks to directly reduce its greenhouse gas emissions through the implementation of more sustainable practices and technologies.

Scope 1 & 2 Trend Analysis  
in tCO<sub>2e</sub>q



- Business as usual
- With plan

Estimated Reduction with Mitigation Plan: Scope 1 & 2  
in tCO<sub>2e</sub>q



- Electric trucks
- Efficient driving
- Solar panels - plants
- Electric vans
- LEED Construction Criteria
- Energy management system
- Renewable energy contract
- Solar panels - service stations
- Efficient navigation
- LED lighting
- Turntide Efficient air conditioning
- Flair Air Conditioning

**Electric Trucks**

Since the transport of fuels and lubricants is one of the main sources of emissions for the company, replacing the current fleet of primary transport trucks with battery-electric trucks would lead to a significant reduction in emissions. There are currently limited options on the market, but this is expected to change in the short term. Suppliers such as Volvo are already delivering cargo trucks with sufficient capacity and autonomy to meet the needs of the operation.





## 2. LOW-CARBON PORTFOLIO

*A clear strategy for future growth:*

*Leading energy transition and enabling third-parties to reduce their carbon footprint in the energy use-phase.*

### a. Leading electromobility

*Copec Voltex is EV charging infrastructure leader*

- Network covers +1,400 kilometers in Chile.
- Most extensive in South America.
- Main energy supplier for electric buses in Chile.
- Largest network of charging stations in shopping malls in Chile.
- Serves industrial segment via electric charging points, mainly in mining sector.
- Operates largest terminal in Latam.
- Runs first network of fast charging stations in Panama, Ecuador and Colombia.

### b. Moving towards renewable energies

*Flux Solar develops photovoltaic solar energy with a focus on distributed generation and self-consumption projects*

- In 2022, first PMGD (Small Distributed Generation Means) project in Chile. +20 solar PMGD projects expected for 3Q23 (146 MWp).
- Serves industrial clients through solar plants built on their facilities.
- Attends residential homes through solar panels installation.
- +1,200 executed projects in Chile.
- +35 MW of installed capacity.

*Abastible continues to consolidate its position as an electricity trader*

- With more than 16 customers totaling 35 GWh, in addition to the implementation of a solar PMGD.

*ARAUCO is one of the main generators of non-conventional renewable energy in Chile*

- Produces biomass energy production to become self-sufficient and contribute surpluses to the energy matrix of Chile, Argentina and Uruguay, providing 1,293 GWh to the electric system.

*Energy integrated solutions*

- Roda-e by Abastible provides integrated solutions in energy efficiency, renewable energy and sustainability. Announced the expansion of its operations in Peru.
- Ampere Energy by Copec develops digital solar energy storage and management solutions (devices and software) to make solar energy as profitable as other energies. Leader in smart energy storage in Spain, with operations and distribution agreements in 7 countries.



### c. Exploring early-stage value creation opportunities

*WIND Copec is an innovation platform with investment focus on Energy, Mobility and Convenience*

- AI-based energy management and storage.
- Technology based on IoT, electromobility, fleet and energy management.
- Investment portfolio of +15 companies.

*Affordable green hydrogen production at scale*

- Copec's WIND Venture H2Pro develops electrolyzers to produce green hydrogen at a lower cost and energy consumption.
- Abastible obtained one of the first permits granted in Chile by the authority (SEC) for hydrogen fuel applications, focusing on thermal applications in mixtures with liquefied and natural gas.

*Green hydrogen in Chile's air transport sector*

- Copec signed a memorandum with Nueva Pudahuel, so the airport will use green hydrogen in 2025 for ground operations and it will be able to receive zero CO2 emissions planes in 2035.

### d. New developments to complement existing assets

*Producing critical inputs for the energy transition*

- Mina Justa completed its first full year of operations with a production of more than 120 thousand tons of fine copper, in concentrates and cathodes, a very significant contribution to face the deficit foreseen for this commodity in the global market.

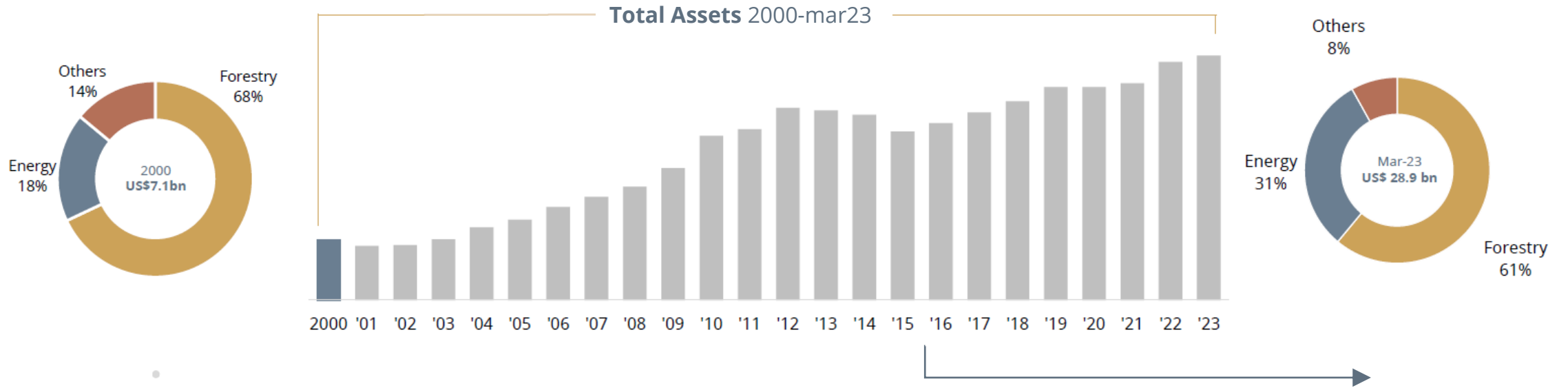
*Copec enters high growth potential markets that complement its business model*

- Acquisition of Blue Express, a last mile company specialized in logistics and courier services.
- Approval for entering the digital payment methods market.



## PORTFOLIO EVOLUTION – STRATEGIC FOCUS

GROWTH CONCENTRATED IN CORE SEGMENTS, WHILE KEEPING OTHER OPTIONS FOR VALUE CREATION



IN THE ENERGY SEGMENT,  
EMPRESAS COPEC HAS INVESTED  
AROUND

**US\$ 1.5 BILLION**

IN NON-FOSSIL FUELS

WHILE IT'S IN THE PROCESS OF  
DIVESTING  
FOSSIL FUEL ASSETS FOR MORE THAN

**US\$ 1 BILLION**





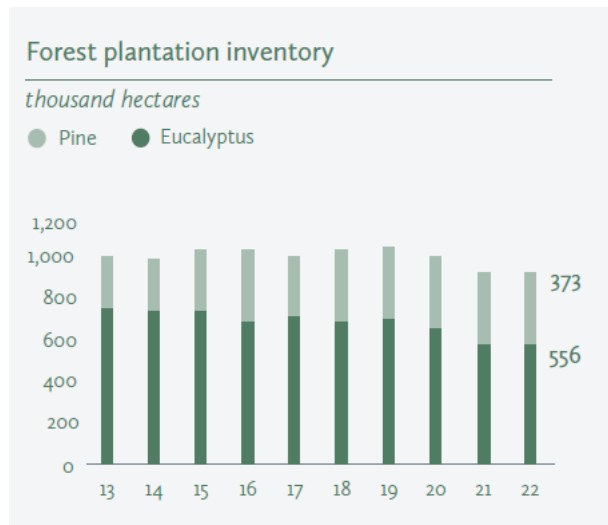
### 3. CARBON CAPTURE

#### a. Atmospheric carbon sequestration

*Forests and forest-based products sequestered carbon in their direct operations as well as along their value chain*

ARAUCO is one of the largest forestry companies in South America. It has 1.7 million hectares of forestland in Chile, Argentina, Brazil and Uruguay. Within this asset, 30% is native forest and protection and conservation areas of high social and environmental value, duly protected and preserved for future generations. Its forestry assets are managed under Responsible Forest Management practices and with production processes certified by the most demanding environmental, social and economic standards worldwide.

During photosynthesis, plants remove carbon (as CO<sub>2</sub>) from the atmosphere and store it in plant tissue. Until this carbon is cycled back into the atmosphere, it resides in one of a number of "carbon pools." These include above and below ground biomass, and biomass-based products both while in use and when stored in a landfill.



**97.2%**

FSC AND/OR PEFC  
CERTIFIED



CARBON SEQUESTERED BY  
FORESTS

**-6.7 MILLION**

TONS OF CO<sub>2</sub><sup>3</sup>



CARBON STORED BY PRODUCTS

**-5 MILLION**

TONS OF CO<sub>2</sub><sup>4</sup>



EMISSIONS OF ARAUCO'S  
OPERATIONS

**4.5 MILLION**

TONS OF CO<sub>2</sub><sup>5</sup>

ARAUCO HAS A POSITIVE BALANCE SHEET OF



**-7.2 MILLIONS**

TONS OF CO<sub>2</sub>

3. Negative values indicate the net removal of CO<sub>2</sub> from the atmosphere. Calculated by PWC based on the carbon neutrality protocol certified by Deloitte.

4. Carbon capture from ARAUCO's plantations includes, pools of native forest conservation, post-harvest forest soil, and forest plantation stock.

5. Carbon emissions for 2020 include scopes 1, 2 and 3 plus forest fires within its property. All emissions of the three scopes are corroborated and certified by AENOR.



## **b. Carbon storage in products**

*Innovation and R&D to consolidate wood-based solutions in the market and their value for the construction, furniture and interior design sectors, as an alternative to polluting products*

Wood-based products have the remarkable capacity to store CO<sub>2</sub>, making it a great alternative to materials of fossil origin. Each ton of wood results in the capture of two tons of CO<sub>2</sub> from the atmosphere. In contrast, producing the same number of other materials such as concrete, plastic or aluminum require a lot of energy from fossil fuels to produce.

*Empresas Copec and subsidiaries offer products and services with low embedded emissions that contribute to the transition of a low carbon economy, as well as those that allow our clients to reduce their environmental footprint and avoid emissions.*

- ARAUCO's VESTO are bare particle boards with melamine coating sold, used to manufacture furniture. This was the first melamine board in the world to certify its carbon footprint, being certified as carbon neutral under the PAS 2050 and PAS 2060 standards by the Carbon Trust. The CO<sub>2</sub> emissions generated over the life cycle of these products, from procurement of the raw materials to final disposal of the boards, are offset and exceeded by the CO<sub>2</sub> captured by ARAUCO's forests, where the main raw material for the products is sourced.
- ARAUCO's HILAM is a structural laminated wood product designed to drive the transition to sustainable architecture and construction.
- ARAUCO invested approximately US\$190 million to produce dissolving pulp from eucalyptus, which has environmental and production advantages over cotton. Is marketed mainly in Asia and is used as a raw material in the manufacture of viscose or rayon fabrics. In 2022, the product reached a production of 361,061 tons (Adt), achieving a market share of 5.3%.
- E2E was established by ARAUCO and ETEX Group with the purpose of designing and producing an industrialized construction system based on timber panels, with high thermal, acoustic and resistance performance, and with a strong commitment to the communities and the environment. The company manufactures the products through a dry process, being less invasive in terms of noise, time and number of trucks.



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