

ARGOS CELSIA ODINSA SUMMA

GRUPO ARGOS

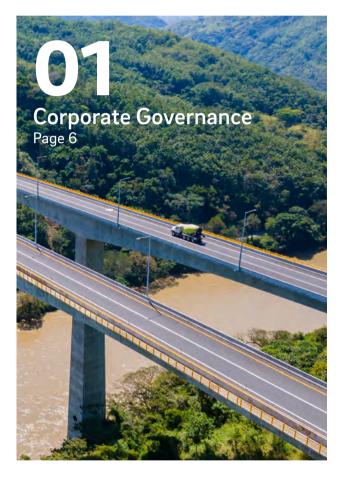
Investments that transform

**T C F D** R E P O R T

A.L

## 2023

## Contents











## Letter from the CEO

In 2024 it will be 90 years since the "Argos Cement Company" was incorporated in 1934, a company focused on the "cement industry and production of any other lime or clay-based materials or articles ...". The raw material of Grupo Argos's history, beyond limestone or clinker, is its creativity, vision of the future and a sense of transcendence that has guided us to create wealth, as important players in the construction materials, energy, concessions and real estate businesses. Simultaneously, we generate comprehensive value for all our stakeholders.

We are proud of our business philosophy, which is consistent with the third consecutive report under the Task Force on Climate-Related Financial Disclosures, TCFD, framework presented publicly by Grupo Argos. This practice involves transparency and accountability, and both ratifies our commitment to climate action as one of the challenges we face as a species, and provides historical evidence for this organization's intent to promote sustainable growth and development through its business activities.

It is worth noting that during 2023 we strengthened corporate governance for managing Grupo Empresarial Argos's climate change strategy, making sure our businesses are aligned with both the challenges and opportunities climate change represents and the priorities set by the company's Board of Directors. Under this, we made progress with building climate scenarios to quantify risks and opportunities, anticipate their effects, and define proactive management measures that put us in a better position over the medium and long term.

One priority is to achieve targeted  $CO_2e$ reductions towards the global targets set for 2050, a milestone made possible by investments in efficiency, technology and emission mitigation and offsetting initiatives. Although we face a



significant challenge, we are proud of the progress we are making and are confident in the organization's ability to continue identifying opportunities to exponentially increase the positive results of our climate change strategy.

Jorge Mario Velasquez

CEO Grupo Argos

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## **Executive Summary**

At Grupo Argos we operate under a strategically coherent framework defined in our Sustainability Policy, which is, in turn, aligned with our higher purpose, namely "We positively transform people's lives through our investments and operations in the territories where we are present," and with sustainable value creation. Thus, our efforts aim to position us as the most important infrastructure asset investment manager in the region, making a significant social, economic, and environmental impact. We are convinced that a fundamental part of achieving this vision is to understand, prioritize and internalize the effects, risks and opportunities of climate change both in our operations and throughout the value chain.

In 2023, voluntarily and following the recommendations of the *Task Force on Climate Related Financial Disclosure* (TCFD), we published our third TCFD report that includes our climate change-related management. We thus intend to transparently communicate to our stakeholders how we identify, manage, and monitor this important topic for the Company.

The Corporate Governance section describes the role of the Board of Directors as the highest executive entity on Environmental, Social and Governance (ESG) affairs and how climate change related topics are approached at the organization's strategic and tactical levels.

In the chapter on Strategy, we put forward Grupo Argos's vision for consolidation as a regionally relevant asset investment manager with a business model that incorporates extensive knowledge of climate change as a strategic, tactical, and operational challenge, analyzing potential strategy impacts of the three scenarios defined for this analysis, as well as in a crosscutting manner across all our businesses: sustainability, commitment and continuity.

Risks and Opportunities describes the

methodology used to identify, quantify, and manage these topics, intending to strengthen the organization's informed and timely decisionmaking, thus helping to generate value for all stakeholders and increase the resilience of the Corporate Group's businesses.

Finally, the chapter on Metrics contains the company's performance on its defined indicators, and the separated and consolidated commitments it has assumed to mitigate  $CO_2e$  emissions by 2030.

This report, developed through joint, concerted work done by different areas of the organization, acknowledges our conviction for proactively managing climate change and the importance of reporting our progress and challenges to our stakeholders in a consistent, reliable and trustworthy manner.

# 01

## Corporate Governance



CREAMOS VALOR SOCIAL

CEMENTO VERDE AMIGABLE CON EL PLANETA

ARGOS



## **Corporate Governance**

#### **Board of Directors**

- » Sustainability and Corporate Governance Committee
- » Audit, Finance and Risk Committee

#### CEO

» Management Committee

#### **CEO** Committee

- » Grupo Argos CEO
- » Manager of the Real Estate Business
- » Cementos Argos CEO
- » Celsia CEO
- » Odinsa CEO

The Sustainability and Corporate Governance Committee **reviews and oversees** all of Grupo Argos' programs, plans and objectives **related to climate action**, to **guide the Board of Directors** in making decisions to increase the Company's climate change resilience and investments.

The Management Committee is responsible for executing, monitoring, and controlling the sustainability and climate change strategy. It is, supported by the sustainability team, which is in charge of implementing, monitoring, and adjusting the company's strategy for Grupo Argos and its investments.

#### Oversight by the Board of Directors

The Board of Directors is our highest executive body and has responsibility for guiding the management and monitoring all our economic, environmental, and social risks and opportunities. Climate change has thus been included on its agenda so that it can become a determining factor in the organization's important definitions and decisions on a strategic level.

We also have the Sustainability and Corporate Governance Committee and the Audit, Finance and Risk Committee, which follow up on progress and performance regarding achievement of the climate change strategy and monitor associated risks, opportunities, and environmental trends that could affect the company's sustainability and competitiveness, incorporating the Board members' vision and experience.

In 2023, our efforts focused on making progress towards achieving the Corporate Group's climate change strategy, developed together with our businesses, which defined  $CO_2e$  emissions reduction targets for 2030.

For more information on our Board of Directors, the members of each of its committees, and their knowledge of these topics, including climate change, please consult the 2023 ESG Databook.



Access our ESG Databook <u>here</u> or scan the QR code

## How we manage this at the Management level

The Grupo Argos Management Committee is responsible for monitoring climate change strategy implementation. It is made up of the CEO and the Vice Presidents. This committee is concerned with responsibly managing and monitoring climate change risks and opportunities, overseeing Grupo Argos's strategic objectives, including those related to climate change, and reviewing and monitoring the achievement of the goals defined in each business's climate change strategies and action plans.

We also have a variable compensation system that promotes the achievement of the organization's strategic and corporate objectives. Depending on each employee's level in the organization, two types of variable incentives may apply: (i) short term, and (ii) long term. In the long term, we incorporate sustainability elements into the incentives that represent at least 15% of the total. These include climate change related indicators, such as meeting the annual CO<sub>2</sub>e emissions reduction target defined for each company in Grupo Empresarial Argos; these, in turn, are aligned with some variables of certain loans acquired by Grupo Argos that are tied to performance in ESG sustainability indicators. Likewise, the short-term incentives of some teams also include climate change related indicators, such as achieving carbon neutrality for Grupo Argos, developing a roadmap to reduce scope 3 emissions, among others.

#### We are strategic architects for Grupo Empresarial Argos

In our asset manager role, we also support our investments in the cement, energy, and roadway and airport concessions businesses to make sure climate change risk mitigation and opportunity maximization are integrated into their business strategies, participating actively in different governance bodies, generating synergies and partnerships, and creating investment vehicles that will allow us to achieve our climate goals and increase the resilience of our operations. Besides participation by Grupo Argos Executives on the different committees that support the operations of the businesses' boards of directors, the CEO Committee meets quarterly to discuss these topics and share good practices, experiences, and action plans and to generate synergies.

There is also Corporate Sustainability Synergy Roundtable, made up of the vice-presidents of sustainability in each business, and Grupo Argos's Sustainability Management. This committee, meets five times a year and oversees each company's more specific sustainability performance, including climate change issues, and guiding local sustainability teams.

In 2020, we also set up the Climate Change Roundtable, where the businesses' tactical and operational levels generate synergies and share good practices, difficulties, and results related to climate change.

Table 1 describes the main topics discussed, the frequency with which they are discussed, and the risks and opportunities reported to the Management Committee. Table 1. Main Climate-Change related topics discussed by the Management Committee and their frequency

Governance Body	Climate change related responsibilities and scope	Main topics discussed in 2023
Board of Directors Frequency: Annual	Define and follow-up the organization's strategy, including its climate change strategy, as one of the organization's strategic risks. Monitor ESG risks and opportunities. Guide the company's CEO on managing the business and the risks it faces. Maintain a general, consolidated overview of the Corporate Group's climate change strategy.	<ul> <li>Provide updates on relevant ESG matters</li> <li>Make progress with the sustainability strategy, including climate change.</li> <li>Approve modifications to the Grupo Argos Bond and Commercial Security Issuance and Placement program, which includes the possibility of issuing bonds linked to sustainable performance that consider key ESG issues, including climate change</li> </ul>
Audit, Finance, and Risk Committee Frequency: Annual	Review and evaluate the risk management system and propose any necessary improvements, promoting the configuration of a control and risk management structure that is aligned with the Company's strategic objectives, including those related to climate change.	<ul> <li>Internal Audit work plan report highlighting a review of ESG issues and the auditor's report on controls on ESG activities</li> <li>Comprehensive overview of Grupo Empresarial Argos's risk management, considering the requirements of Circular 031/2021 and implementation of ESG compliance reports</li> </ul>
Sustainability and Corporate Governance Committee Frequency: Annual	Make sure that corporate governance practices, including those related to climate change, Code of Good Governance provisions. Have knowledge of and oversee the implementation of the Board's action plan for each calendar year, including a session on sustainability. Promote training for managers and directors on sustainability topics, including climate change.	<ul> <li>Make progress with the achievement of the climate change strategy</li> <li>Understand, oversee, and follow-up implementation of Grupo Argos's Environmental Policy</li> </ul>
Management Committee Frequency: Quarterly	Propose and follow up on action plans for the Corporate Group's climate change strategy. Along these lines, the Management Committee defines climate change guidelines for the businesses.	» Monitor and define climate change targets, follow-up to indicators defined for Grupo Argos's material issues in its dual materiality analysis

Table 1. Main Climate-Change related topics discussed by the Steering Committee and their frequency

Governance Body	Climate change related responsibilities and scope	Main topics discussed in 2023			
CEO Committee Frequency: Quarterly	Make sure the climate change strategy for each business is in line with the corporate group's strategy. This committee also continuously manages and monitors the ESG risks and opportunities that affect each of the industries where Grupo Empresarial Argos operates.	<ul> <li>Climate change strategy work plan for each business, monitoring plan and follow-up of goals and key indicators</li> <li>Socialization of dual materiality exercise results</li> </ul>			
Corporate Group's Sustainability Synergy Roundtable Frequency: Quarterly	Approve during construction the proposal on cross-cutting material issues, including climate change for Grupo Empresarial Argos, prior to its presentation to the CEO committee. Approve defined climate change targets for the Corporate Group Approve the work plans proposed for meeting climate change goals. Provide guidelines, when they deem necessary, on specific actions to create synergies between businesses. Analyze Grupo Empresarial Argos's climate change performance results.	<ul> <li>Approves nature and resource efficiency targets, including the adoption of the TNFD and climate change as a guiding framework on nature-related matters</li> <li>Socialization of dual materiality exercise results, including climate change</li> <li>Sustainability engagement</li> <li>Environmental information system to track performance, including climate change KPIs</li> </ul>			
Corporate Group Sustainability Synergy Roundtable Frequency: Biweekly	Jointly construct the proposal of appropriate climate change indicators and associated targets and the corresponding action plans for achieving their objectives. Identify specific actions of synergy between businesses to promote the achievement of climate change goals defined for cross-cutting material issues. Analyze Grupo Empresarial Argos's climate change performance results.	<ul> <li>» Develop a comprehensive proposal that encompasses the specificities of each business with Grupo Empresarial Argos's climate change vision</li> <li>» Map collaboration opportunities with subsidiaries to help achieve common goals</li> <li>» Develop concrete actions to promote synergy and inter-subsidiary cooperation in strategic areas like climate change</li> <li>» Design environmental performance reporting and monitoring strategies</li> </ul>			

#### **Vision for the Future**

Review the progress of Grupo Argos and Grupo Empresarial Argos' Climate Change Strategy by the Board of Directors and its support committees.

Strengthen the reporting of information disclosed by constantly monitoring the evolution of the most appropriate climate metrics for each of our businesses' strategies







## **Scenario Analysis**

A climate scenario is defined as a potential future based on projections of several variables including greenhouse gas (GHG) emissions, demographic growth, technology availability, cost and assimilation, and economic growth, among others. Three climate change scenarios are analyzed to support the company's strategy. This analysis involves exploring risks and opportunities in a range of hypothetical futures, with the purpose of identifying potential impacts on our strategy as a strategic investment manager.



First sack of Cementos Argos

#### SustainabilityRCP 2.6ScenarioIPCC: 1.3°C and 2.4°C

Low physical risks/high transition risks (more regulation, taxes, increased investment in technology, energy transition opportunities, green products).

#### **Potential Impacts**



- » Ongoing technology and innovation investments to develop lowcarbon products
- $\ensuremath{\mathsf{w}}$  Ongoing investments to expand the renewable energy segment
- » Venture into new technologies like hydrogen
- » Expanding energy storage with second life electrical mobility batteries



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» Assess the impact of future regulations in the transportation and construction sector on its operations

#### Assumptions

- Assumes that climate policies are stricter in the transportation and construction sectors.
- Creates a situation where a lack of coordination between sectorbased policies results in a great consumer burden, while the decarbonization of energy and industrial supplies is less strict.
- » Businesses have difficulty aligning with global targets.
- » Our businesses have mixed results in terms of long-term profitability and competitiveness.
- Increased transition risks, including regulation, market, technology, and reputation risks, which could result in higher costs, constraints, changes in demand, and stakeholder expectations regarding the company's environmental performance
- Increased opportunities for innovation, efficiency and competitiveness, to develop green products and solutions, implement circular economy measures, reduce CO<sub>2</sub> emissions and offset the company's environmental impact

Compromise	RCP 4.5			
Scenario	IPCC: 2.1°C and 3.5°C			

Significantly higher physical risks (more floods, droughts, hurricanes, landslides) and relatively low transition risks, among others (taxes, regulations).

#### **Potential Impacts**



- » Delays or interruptions to the production process due to climatic phenomena that lead to higher costs
- » Higher costs of current fuels like coal and gas for the production process
- » Higher logistics costs for exports and delays due to climate effects
- » Climate phenomena that impact energy availability
- » Potential to increase thermal energy generation
- » Higher costs of fuels like gas for the supplying thermal plants
- » Impacts on roadway traffic due to climate phenomena and potential landslides
  - » Impacts on airport traffic due to adverse weather conditions
  - » Higher costs from repairing roadways impacted by weather conditions

#### Assumptions

- Assumes a moderate and heterogenous climate ambition reflected by Nationally Determined Contributions (NDCs).
- Emissions decrease. However, this leads to 2.6°C in warming associated with moderate to severe physical risks (worsening physical risks associated with extreme weather events, including droughts, floods, storms, and heatwaves, that could affect the company's infrastructure, operations and supply chain, as well as the health and safety of its employees and communities, more severely).
- » Increased inequality gaps between countries and companies with more capital that affects the competitiveness of our businesses



La Castellana Park Atlántico



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Catastrophic physical risks, very low transition risks:

#### **Potential Impacts**

- Reduced technology and innovation investments to develop lowcarbon products, affecting investor and overall market perceptions
- » Delays or interruptions to the production process due to climate phenomena like hurricanes and floods that lead to higher costs
- » Higher logistics costs for exports and delays due to climate effects
- » Price increases or reduced profitability due to higher taxes on using fossil fuels
- » Slower expansion of renewable capacity
- » Increased thermal generation due to lower levels of reservoirs for hydroelectric generation
- » Increased logistics costs for fuel transportation that would increase the cost of thermal generation
- » Increased maintenance costs for generation plants due to weather events

#### Assumptions

- » Lacking or deficient controls for meeting climate change policies
- Increased inequality gaps between countries and companies with more capital that affects the competitiveness of our businesses
- Reduced capacity to access technologies, delayed investments for climate change, and larger costs for transferring risk
- » The organization does not manage to develop and scale businesses in line with climate targets
- » Realization of physical risks associated with extreme weather events, including droughts, floods, storms, and heatwaves, that could irreversibly affect the company's infrastructure, operations and supply chain and the health and safety of its employees and communities, and even lead to loss of human life and ecosystems.
- » Higher carbon taxes that could be passed on to the end consumer
- » Increased frequency of climate phenomena

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» Limited opportunities for innovation, efficiency and competitiveness



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 $\boldsymbol{\ast}$  Greater investments for adapting to climate change phenomena

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Autopistas del Café Coffee Growing Region

#### **Strategy**

Grupo Argos is working to become one of the most relevant infrastructure asset managers in the Americas, standing out by making investments with a high social, economic and environmental value. This model seeks to position the management of climate matters as a conduit for investment capital, driving future growth and building a track record of managing third-party assets.

To implement this strategy and considering the context and global demands in terms of climate change, at Grupo Argos we are aware of the need to assimilate, prioritize and incorporate the effects of climate change into the business model.

Considering the above, at Grupo Argos we work permanently with our businesses to manage the risks and take advantage of the opportunities of climate change and to design any transformations required by capital assignment and planning processes. The following are the main areas of work:

- » Implement proactive climate change risk and opportunity management, integrating financial considerations that are relevant to the company.
- » Establish annual climate change targes, based on roadmaps defined out to 2030.
- » Develop long-term action plans, covering the period from 2030 to 2050.
- Periodic progress review with the Board of Directors Sustainability and Corporate Governance and Audit, Finance and Risk Committees, with annual reports to the Board of Directors
- Foster alignment between the compensation for the organization's leaders with achievement of these goals

Our cross-cutting climate change strategy includes implementing actions for Grupo Empresarial Argos's carbon footprint and promoting actions to adapt our businesses to the effects of climate change.

We will reduce by

46%

our CO<sub>2</sub>e emissions per million pesos in revenue compared to 2018 We will reduce by





Aeropuerto Internacional Mariscal Sucre Ecuador

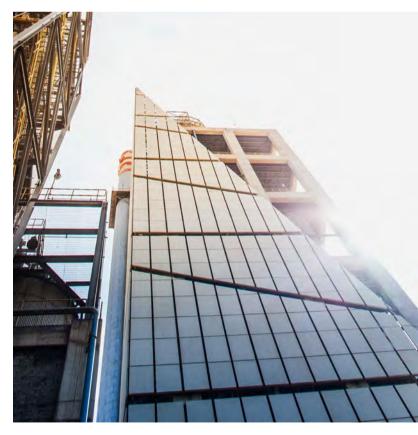
According to this framework of reference proposed by the climate change strategy, we believe our efforts under Grupo Argos's strategy should focus on the following lines:

- » Coordinate teams in the different companies to ensure achievement of the climate change strategy defined by Grupo Empresarial Argos and its alignment with Science Based Targets (SBTi). To date, our roadway and airport concessions and cement businesses have approved Science Based Targets representing around 90% of the organization's scope 1 & 2 emissions.
- Work on designing a financial structuring process for climate change related projects and enable short, medium and long term solutions. Accelerate research and development initiatives aimed at addressing the main challenges of the infrastructure sector, and advance in a conscious investment approach that progressively aligns capital flows with the outlined objectives
- » Actively participate in public climate change policymaking scenarios in its target regions and positively impact their formulation with its experience in and knowledge of the sector
- » Use spaces like the Grupo Empresarial Argos Climate Change Roundtable to promote alliances to share the strategies of each business, risk assessment methodologies, opportunities, internal carbon price and scope 3 emissions, among other issues

With this strategy, Grupo Argos aims to contribute to climate change mitigation and adaptation based on its role as a relevant player in the infrastructure sector, and generate shared value for its stakeholders.

#### **Vision for the Future**

- » Continue to integrate climate change issues into M&A due diligence procedures, ensuring negotiations are aligned with our climate goals and anticipating potential risks
- » Reinforce the construction of climate scenarios to invest in technologies and business models with high certainty and/or in early stages of development.
- » Continue exploring projects and agreements with academic institutions and research centers, as well as the implementation of investment vehicles, to promote the early adoption and development of new technologies to enable us to achieve the proposed goals



To date, the Business has signed

**4 SPECIFIC AGREEMENTS** 

with Universidad Nacional de Colombia to make joint academic - industrial efforts on climate change solutions.

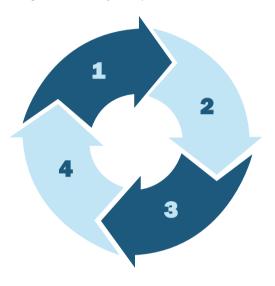
Cementos Argos Plant - Cartagena Colombia





## **Risk Management**

Figure 1. Risk management process



**Risk Identification** 

2

3

4

Identify and review risks that could affect achievement of the strategic objectives

#### **Risk Analysis and Assessment**

Understand the nature and characteristics of the risk, assessing it both qualitatively and quantitatively

#### Risk Management

Implement different options to address the risk according to management objectives and criteria

#### Risk Monitoring

Monitor risk status and any factors that could modify it. In addition to the operations of the key controls to manage it

## Climate change risk analysis process

The achievement of strategic objectives and the good performance of the businesses are the result of a comprehensive management of climate change risks. Identifying and evaluating them in advance is the basis for defining any negative impacts that might arise.

The Enterprise Risk Management (SGIR, in Spanish) is a dynamic, ongoing cycle that feeds into the Steering Committee, the Board of Directors and each area of the organization who, together with the Strategic Planning and Risk teams, make up the consolidated risk landscape. In turn, the result of these processes becomes an input for periodically analyzing strategic risks, seeking continuously improved decision-making.

The above is based on different sources including the materiality analysis (in both directions), conversations with stakeholders and environmental trends, among others, anticipating opportunities and/or threats to the strategic objectives.

The risk management process (Figure 1) enables identifying, analyzing, assessing, processing and monitoring events that could significantly affect these objectives: the company also has a Corporate Risk Policy and Handbook that define the roles, responsibilities, procedures, and tools for systematic and anticipated risk management. These guidelines are the foundation for integrating climate change risks into our SGIR, based on a "three lines of defense" model:

» First line: the Strategy and the Mergers and Acquisitions teams are responsible for incorporating climate change risks and opportunities for the industries where they have investments into their assessing exercises. In turn, they are responsible for monitoring global and sectoral trends that feed back into the strategic process.

- Second line: the Risks and Sustainability teams assist the Steering Committee with understanding climate phenomena and their integration with the business models, ensuring the companies have the tools to monitor and manage them. Finally, the Risks and Sustainability areas build trend dashboards and make recommendations on reporting standards for communicating risk management to stakeholders.
- Third line: the Internal Audit team independently verifies the control environment and any measures that help improve management controls and plans, including mitigation, adaptation, and compensation activities. It also helps verify risk management goals and metrics with external auditors and verifiers.

To keep our risk matrix updated and current, we perform a trend and risk exploration every 5 years (or before, if necessary) where we compare Grupo Argos's business with the environment, consider medium- and long-term trends and specificities of the industries, and define the steps to be followed to ensure the company's sustainability.



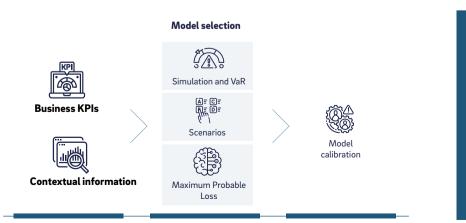
**Celsia Solar San Felipe** Tolima

Grupo Argos currently has six strategic risks (Table 2) that include climate change. Strategic climate change risk is analyzed using the ISO 31000 and COSO-WBCSD approaches to ensure its proper identification, measurement, management, and monitoring, seeking to integrate its impact into our capital assignment and structure models.

Table 2. Grupo Argos strategic risks

Risk	Risk Description		
Allocation and cost of capital	Inability to generate sustainable and profitable growth of the assets under management.		
Social, political, and economic environment	Conditions external to the organization that impact the social, corporate, institutional and regulatory fabric. Unfavorable location within the economic cycle.		
Climate change and other global risks	Low competitiveness in the transition to a low-carbon economy and threats from natural events. Other global risks that compromise the portfolio (e.g., pandemics and wars).		
Reputation	Impacts on reputation and on stakeholder confidence compromising the organization's ability to operate and enable business performance.		
Human Talent	Risks related to attraction, selection, development, and loyalty processes that do not allow the organization to have the talent it requires.		
Technology and cybersecurity	Failures in the technological platform that enables asset competitiveness and efficient cybersecurity management.		

Figure 2. Risk measurement cycle



At Grupo Argos we have decided to manage climate change risks **proactively** by **identifying** the most important variables that affect us, **quantifying** their business impact, and **prioritizing** mitigation strategies.

#### Climate change risk quantification

#### **Physical risks**

Grupo Empresarial Argos's businesses are using tools to identify the vulnerability of our physical assets (the facilities were we operate), to evaluate many different natural threats (hurricanes, floods, droughts, tropical cyclones, electrical storms, among others), georeferencing and estimating expected losses by business, geography, and type of risk. The facilities that face the greatest threats are prioritized for each business, and finally the physical impact is estimated.

The facilities that face the greatest threats are prioritized for each business, and finally the physical impact is estimated.

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#### Scenario 1

SSP1 – 1.9 + NZE: there would be at least a 50% chance of limiting global warming to below  $1.5^{\circ}C$  by the end of the century.

#### Scenario 2

SSP1 – 2.6 + APS: only economies that have the current goal of achieving net-zero emissions by 2050 will achieve it, while those that do not are expected to achieve carbon neutrality after 2070.

#### **Scenario 3**

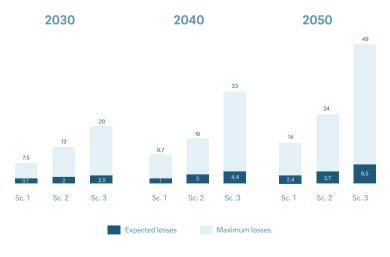
SSP2 – 4.5 + STEPS: a temperature increase of 2.7°C is expected by 2100.

#### **Physical risks**

**Risk description:** extreme rainfall, hurricanes, landslides derived from extreme weather events, tornadoes, forest fires, depletion of water resources for the ongoing operations due to climate change and ecosystem degradation.

Approach: for physical risks, changes in the associated variables are analyzed for each relevant asset in each scenario and time horizon, using the most up-to-date databases and climatological models from the *Coupled Model Intercomparison Projects* (CMIP6), which analyze climate variation throughout the world incorporating a specific spatial resolution and are being developed by large climate change study organizations.

Image 1. Physical risks Cementos Argos (USD millions)



Source: TCFD 2023, Cementos Argos

#### **Transition Risks**

The short-, medium- and long-term impacts are projected using qualitative analyses and quantitative estimations. These projections are based on variables and analyses derived from the climate scenarios. This allows us to objectively measure the impact of transition risks and assess the effectiveness of the mitigation measures implemented.

#### **Transition Risks**

#### **Risk Description:**

- » Tax burdens associated with the implementation of trading systems
- » Increased costs of raw materials
- » Uncertainty in energy markets
- » Increased risk retention and transfer costs
- » Depreciation or early replacement of existing assets due to technological obsolescence
- » Restrictions on access to capital, credits and the like, as the production process is CO<sub>2</sub> emissions intensive

Methodology: the quantitative impacts that make up the climate change risk map for 2023 are estimated using scenarios based on stochastic models under the Value at Risk (VaR) approach. Assumptions are made on random variables on a case-by-case basis, and Montecarlo simulations are used to generate distributions of potential deviations in the budgeted corporate EBITDA for the year.





Source: TCFD 2023, Cementos Argos

Transition risks are highly relevant even in those scenarios that are closest to the current reality, as the construction materials industry's high dependence on fossil fuel extraction exposes those businesses to business circumstances inherent to the availability and cost of these inputs.

#### Scenarios (Representative Concentration Pathways - RCPs):

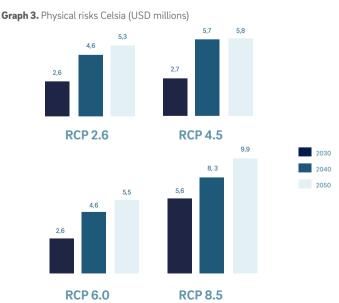
RCP 2.6: target <2°C

**RCP 4.5:** global warming limit of about 2°C **RCP 6.0:** high greenhouse gas emission rate (higher than that considered under scenario 4.5) **RCP 8.5:** no major global effort to limit emissions

#### **Physical risks**

**Risk description:** atmospheric data related to temperature, precipitation, drought, forest fires, and other data related to coastal flooding, tropical cyclones, water stress and river basin flooding are processed and analyzed to provide risk estimates under various conditions and different RCP scenarios.

Approach: to quantify climate change risks, the model uses *The Climate Service* (TCS) Climanomics® platform and considers a time horizon between 2020 and 2100. A representative sample of 19 assets in operation (4 hydro plants, 1 natural gas-fired thermal plant, 1 solar farm, 6 distribution assets, 5 transmission assets) and 2 wind farms in the pipeline were selected.



Source: TCFD 2023, Celsia

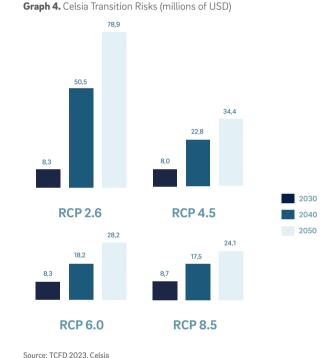
Climanomics® results represent the expected increase or decrease (delta) in financial risk due to climate change, and, using the last half of the 20th century as a reference, it assumes zero risk when measured threats are at the historical levels associated with this time period.

Overall, for the 2040s, physical risks account for 0.5% of the value of the sampled assets (USD \$8.3 million in modeled average annual losses) for the RCP 8.5 scenario.

#### **Transition Risks**

Risk description:  $CO_2$  emissions tax, legal and regulatory issues, reputational damage, new technologies and market.

Transition risks represent 1.1% of the value of the assets in the sample (USD \$17.5 million in mean modeled annual losses) during the 2040s for an RCP 8.5 scenario, with emissions taxes the risk with the greatest economic impact arising from thermal plant generation.





#### **Physical risks**

Risk Description: intense rainfall, lightning strikes, landslides, floods, gales, forest fires

Approach: with assistance from the Geoscience area of Seguros Suramericana S.A., we have georeferenced and estimated the expected losses in the concessions where Odinsa operates, by geography and type of risk, and evaluated multiple natural threats including hurricanes, floods, droughts, tropical cyclones, and electrical storms, among others.

#### Quantification:

Impact on roadway concessions: ~ USD 88.5 mn (residual impact: ~ USD 16 mn) Impact on airport concessions: ~ USD 2.8 mn (residual impact: ~ USD 54 mn)

#### Source: TCFD 2023, Odinsa

#### **Transition Risks**

Risk Description: changes to technical design and construction conditions, changes to conditions external to roadway and airport operations that modify the infrastructure usage model.

Approach: to quantify its climate change risks, Odinsa carried out sensitivity analyses for each concession, according to each one's characteristics and specificities. It applied a qualitative risk assessing approach to prioritize which risks should be quantified, according to their probability and impact. After performing a qualitative assessment of 100% of its identified risks and scenarios for 100% of the concessions, it performed quantification and sensitivity analyses for the financial models of those assessed as high or very high and considering their probability of occurrence. Certain concessions have no assessable or critical risks due to their specificities and existing mitigation measures.

Quantification: the analysis returned a result that fell between "very low" and "low", because their effect upon revenue, expenditures, and operations are less than 5%. This is as a result of the mitigation measures put in place by the operations and concession contracts, and mean that this effect is not material.



#### **Physical risks**

Risk Description: no material risks associated with climate change were identified for Grupo Argos.

Approach: with support from the Geosciences area of Compañía de Seguros Suramericana S.A., expected losses due to natural events associated with climate change were estimated at Grupo Argos's facilities, including Real State Business.

Quantification: non-material.

#### **Transition Risks**

Risk Description: limited access to capital due to climate change requirements, impaired value of investments or assets due to changes in regulations, operating standards, or other stakeholder requirements.

Approach: assumptions are made regarding potential carbon pricing scenarios, and, potential deviations from the budgeted corporate EBITDA are calculated using an analysis of actual emissions.

Quantification: the analysis returned a result of "very low", because effects on EBITDA are less than 1%. As such, this effect is not material.



Company Mitigation and adaptation Company Mitigation and adaptation Grupo Empresarial Argos Climate Renewable energy generation » **Change Strategy** Energy efficiency portfolio » GRUPO ARGOS CELSIA Grupo Argos carbon neutrality Sustainable mobility infrastructure » certificate in 2022 » Carbon markets Strengthening the conscious ReverdeC Program (watershed >> » investment process improvements, which translate into water resource conservation and contributes to capturing  $CO_2e$ ). » Technical and financial roadmap » 2022 Carbon neutral certified **Climate Change Adaptation Plan** » » Increased use of alternative fuels ARGOS Reduced clinker/cement factor » » Increased thermal efficiency » Increased renewable energy use -PPAs Efficient operations » Increased electrical efficiency in Renewable energy use » » ODINSA production processes » Sustainable procurement Native tree planting » » Habitat protection and restoration along our concessions

Table 3. Description of some mitigation and adaptation strategies for physical and transition climate change risks

## **Opportunities**

Complementing the risk identification exercise, Grupo Argos monitors the opportunities that climate change may offer, understanding their relevance and alignment with the business strategy.

In line with efforts to drive sustainable financing at Grupo Empresarial Argos and our commitment to achieving ESG targets, we ended 2023 with COP 4 trillion in consolidated sustainable debt, or 29.7% of overall debt. After including the sustainable debt of the Celsia and Odinsa platforms, the total amount would be equal to COP 4.5 trillion.

On a separated level, achievement of loans tied to climate change and gender equality indicators enabled savings of over COP 5 billion out to 2026, which is when the loan matures.

The corresponding risks and achievement, together with their quantification, appear below.

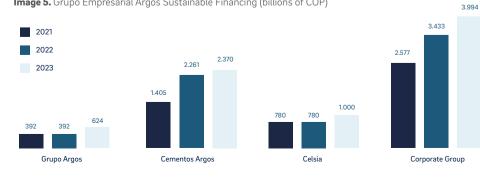


**Calima Hydroelectric - Celsia** Valle del Cauca

Table 4. Climate change opportunities identified in the short-, medium- and long- term for Grupo Argos and its subsidiaries.

Company	Short-Medium Term (<5 years)	Long-term (>5 years)			
GRUPO ARGOS	<ul> <li>Sustainable financing</li> </ul>	<ul> <li>Take advantage of our role to attract long-term investors thanks to our sectoral positioning and ESG knowledge.</li> </ul>			
Gains of between USD 15 and 1713 mn expected by 2050 depending on the climate change scenario that materializes	<ul> <li>Increased supply of sustainable products and solutions</li> <li>Reduced clinker/cement factor</li> <li>Increased use of renewable energy sources</li> <li>Maximized waste co-processing</li> <li>Use of alternative fuels</li> <li>Advances in technological developments associated with CO<sub>2</sub> capture and use</li> </ul>	<ul> <li>Customer portfolio of green solutions</li> <li>More efficient production and distribution processes.</li> <li>Emissions capture and use (CCU)</li> <li>Electric kilns</li> <li>Hydrogen use</li> <li>Access to climate change-aware capital markets that "assist" the efforts being made by different sectors</li> </ul>			
CELSIA	<ul> <li>Sustainable Energy Solutions E-Mobility</li> <li>Energy efficiency</li> <li>Self-generation using renewable energy resources</li> <li>Efficient lighting</li> <li>Carbon markets</li> <li>Renewable energy certificates of origin</li> <li>Tax benefits and access to capital for non-conventional renewable energy Sustainable Credits</li> </ul>	<ul> <li>» Hydrogen projects</li> <li>» Green Urea Project</li> <li>» Innovation initiatives including second-life batteries</li> </ul>			
ODINSA	<ul> <li>» Circular economy for building roadway projects and optimizing costs</li> <li>» Energy efficiency at airports</li> <li>» Sustainable financing</li> </ul>	<ul> <li>Transport infrastructure to support E-Mobility</li> <li>Development of climate-resilient infrastructure.</li> </ul>			

Image 5. Grupo Empresarial Argos Sustainable Financing (billions of COP)



- » Grupo Empresarial Argos's overall DEBT has decreased 18% between 2021 and 2023
- Sustainable financing went » from having a weight of 16% of total debt in 2021 to 29.7% in 2023

#### Business engagement process according to their climate change risks

Besides the process described in the Corporate Governance chapter, the main engagement mechanism between Grupo Argos and its businesses associated with climate change risks arises from the high-level participation by Grupo Argos's Steering Committee on the businesses' Boards of Directors, where they discuss management mechanisms implemented by the administrations and follow up on the company's climate change strategy in the delegate Committees (Audit, Finance and Risk, and Sustainability and Corporate Governance).

Grupo Argos' climate change risks are also aligned with the businesses' risks, making sure business fundamentals and trends are connected to the managed portfolio and sharing synergies and good practices. Grupo Argos' risk team is also interacts constantly with the risk teams of its strategic businesses, according to the following principles:

#### 1

Quarterly reports to the Grupo Argos's Risk area on the status of strategic risks at its businesses.

#### 2

Monthly meetings between risk areas to monitor the performance of risk management measures.

#### 3

Expanded risk committees for monitoring global and business risks.

Our strategic businesses have business continuity and disaster recovery plans that are reviewed and approved by their governing bodies with participation from the Grupo Argos Steering Committee.



Pacífico 2 Operations Control Center Antioquia

#### **Vision for the Future**

- » In 2024 we will continue actively managing climate change risks and opportunities. We will also perform a trend review, to identify whether we should adjust the company's risks and, specifically as regards climate change risk, review and understand it in depth, to strengthen its prevention, measurement, and mitigation management.
- » We will continue to strengthen debt substitution with ESG credits and increase the overall share of sustainable funding used.





## **Metrics**

At Grupo Argos we affirm our commitment to the transition to a low-carbon economy, understanding climate change as a challenge and an opportunity. Accordingly, we focus our efforts on minimizing the adverse impacts of our investments and operations, while seeking to maximize their positive benefits.

We strive to accelerate a transition to more sustainable energy sources, promote the growth of decarbonization solutions, and transform carbon-intensive businesses into models aligned with global expectations. This approach creates value for all our stakeholders and increases the resilience of our businesses.

Metrics accuracy is essential for translating climate change risks in a reliable and understandable way, allowing effective monitoring over time with a view towards continuous improvement. In 2023, we developed a roadmap to reduce scope 3 greenhouse gas (GHG) emissions. This roadmap is based on four key programs:

- » Quality data: data collection and management systems to increase the accuracy and reliability of information related to scope 3 GHG emissions, providing a solid basis for informed decision-making
- Setting goals and ambitions: we set specific and ambitious targets for scope 3 GHG emissions reduction in line with our vision of achieving an emissions intensity of 12 kg CO2e/COP million in revenue
- » Identifying reduction drivers: we have identified and are implementing effective strategies and practices to reduce our emissions, focusing on critical areas and significant opportunities
- Engaging with critical suppliers: acknowledging the importance of the supply chain in the proper management of the company's Greenhouse Gas (GHG) emissions, we have made an active commitment to strategic suppliers to promote collaborative practices that help reduce emissions throughout our value chain and contribute to achieving our goal

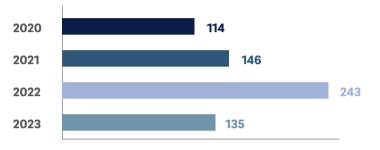


With the commitment to actively promote and contribute to the transition to a low-carbon economy, and in line with its sustainability strategy, in 2023, Grupo Argos received carbon verification for its 2022 Scope 1, 2 and scope 3 category 6 emissions, in accordance with the PAS 2060 standard requirements. This standard defines a four-stage process including the assessment of greenhouse gas (GHG) emissions based on accurate data, emissions reduction through a management plan, offsetting excess emissions, and documentation and verification through explanatory statements and public disclosure.

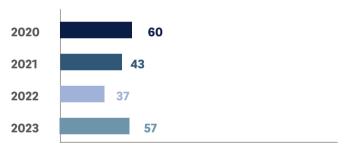
This was certified by the Carbon Trust, a global climate consulting firm, driven by the mission of accelerating the pace towards a decarbonized future, reinforcing Grupo Argos' leadership as an organization with high quality and sustainability standards and ratifying the work that has allowed it to reduce the amount of scope 1 and 2 emissions by 31% to date compared to the same levels of the previous year, through quantification, monitoring and process optimization efforts. We are committed to transparency and continuous improvement in our climate change response, and we believe these initiatives will help us move toward our goals.

Image 6. GHG emissions indicators for Grupo Argos

#### Direct GHG emissions (Scope 1) / tCO2e



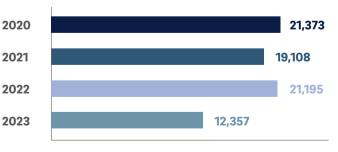
Indirect GHG emissions (Scope 2) / tCO2e



Other indirect GHG emissions (Scope 3) / tCO<sub>2</sub>e

#### In 2023

- We verified Grupo Argos's carbon neutrality for 2022. This included scope 1, 2 and scope 3 category 6 emissions.
- We made progress towards reducing scope 3 emissions for Grupo Argos and achieved a result of 8.7 kg CO₂e/Million COP in revenue (a 74% reduction compared to the 2021 baseline).



\*Material categories for Grupo Argos are: 1, 3, 5, 6, 7, 10, and 13.

#### Grupo Empresarial Argos Climate Change Strategy

In 2023 we achieved a 23% reduction in absolute scope 1 & 2  $CO_2e$  emissions, compared to our 2015 baseline. This reduction translates to a decrease about 2.8 million t $CO_2e$  in the carbon footprint at the end of 2023. Grupo Empresarial Argos's carbon footprint is publicly disclosed in the Grupo Argos Annual Integrated Report, as well as in each company's report.

#### **Vision for the Future**

- » In 2024, we will continue to monitor the results of the most appropriate climate metrics for our strategy as an infrastructure asset manager. This process is essential to ensuring that these indicators are precisely aligned with both the specific reality of the company and prevailing global trends
- » We will implement the activities defined in the Grupo Argos scope 3 emissions management roadmap to reduce emissions throughout our value chain.

## Over **90%**

of our corporate group's scope 1 & 2 emissions have science-aligned (SBTi) reduction targets.



Hogares Saludables Cementos Argos Project

#### Table 5. GHG emissions indicators for Grupo Empresarial Argos consolidated

Indicator	Unit	Baseline year values					Target year values
			2020	2021	2022	2023	2030
Direct GHG emissions (Scope 1)	tCO₂e	11,969,756 (2015)	8,112,524	8,959,958	9,056,450	9,057,185	
Indirect GHG emissions (Scope 2)	tCO₂e	415,605 (2015)	501,957	526,327	462,546	467,627	
Total GHG emissions (Scope 1 + Scope 2)	tCO₂e	12,385,362 (2015)	8,614,481	9,486,285	9,518,996	9,524,811	7,803,358
Reduction in absolute direct and indirect CO2e emissions (2015 baseline)	%		-30%	-23%	-23%	-23%	-37%
Intensity of direct and indirect emissions (2018 baseline)	tCO₂e / MM COP	0.72	0.62	0.60	0.46	0.43	0.39
Variation compared to the 2018 baseline	%		-13%	-17%	-36%	-40%	-46%

\* For more information on Grupo Empresarial Argos climate change indicators and details for the different companies, please contact www.argos.co - www.celsia.com - www.odinsa.com

\*\* Some of the indicators included in this chapter were audited by BDO Audit S.A.S. as part of the 2023 Integrated Report process of Grupo Argos S.A. and the businesses. This is evidenced in the verification letter included in each of the Integrated Reports of Grupo Argos, Cementos Argos, Celsia and Odinsa.





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