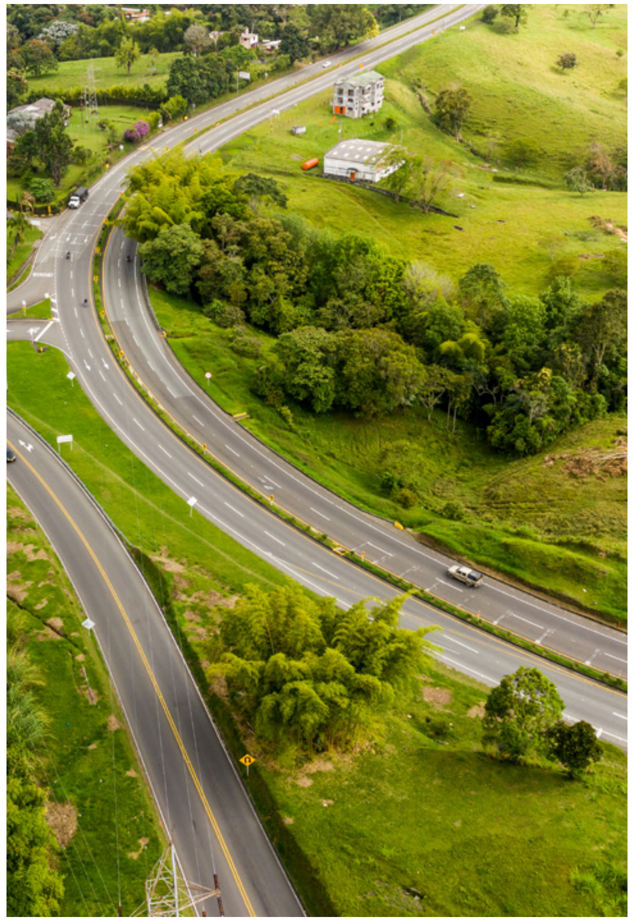
GRUPO ARGOS

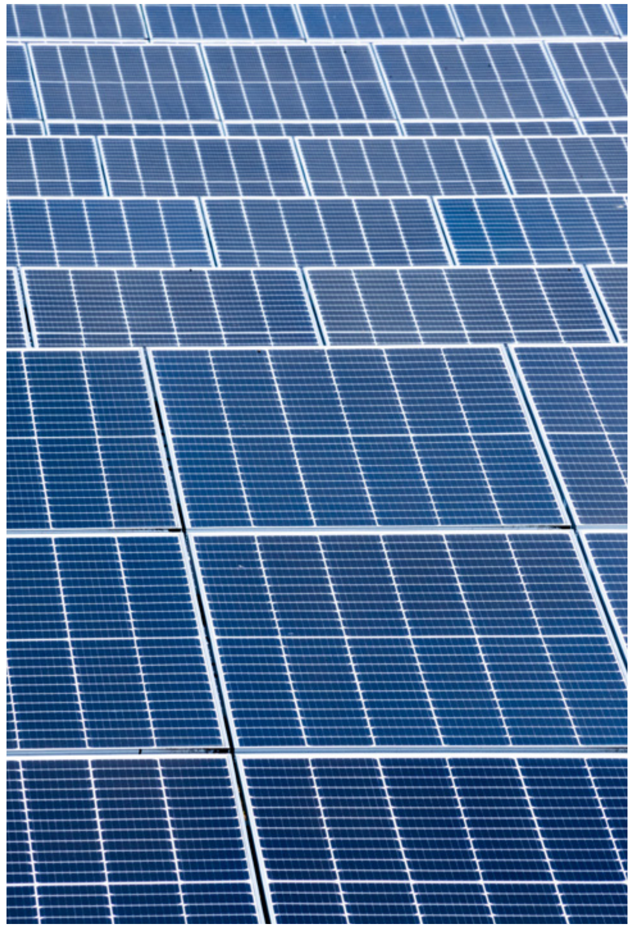
Investments that transform

# TCFD
# REPORT
# ›2022

# Contents







# Letter from the CEO


Outstanding financial performance and value generation for all its shareholders has driven Grupo Argos's consolidation in recent years as a reference infrastructure asset manager in the Americas. This consolidation is the result of a corporate vision that, for close to 90 years, has fed into a virtuous cycle based on the conviction that corporate success is exponentially higher when it creates value for the organization's entire stakeholder group, in equilibrium with the creation of social value and care for the environment.

This is a vision we share with the businesses that make up Grupo Empresarial Argos, and this has allowed us to consolidate sound social equity supported by relationships of trust that allows us to continue maximizing the value of our investments and to continue growing in a profitable and sustainable manner. Along these lines, the organization has a cross-cutting sustainability strategy with environmental, social and corporate governance goals that we work towards collectively and in line with our interest in creating comprehensive value.

Climate change is one of the fronts that interests us, as we understand the importance of managing the effects of this global phenomenon upon our operations and its current and potential impact upon our stakeholders. Thus, and as an exercise in transparency that allows us to provide useful information and contribute to organization's vision and decision-making, and to complement its management reporting mechanisms, this document contains our climate strategy progress, results and management within the framework of the *Task Force on Climate Related Financial Disclousure, TCFD*, and in line with our commitment to the 2030 Agenda and its 17 Sustainable Development Goals.

Although we have full confidence in the power of the articulated operations we have been developing to mitigate our $CO_2$ strategy and adapt to the effects of climate change, we are aware of the size of the challenge we face as an organization and as society. We will thus continue to identify opportunities that will allow us to increase the positive results of our sustainability and climate change strategy.

**Jorge Mario Velasquez**
CEO
Grupo Argos

# Executive Summary

Grupo Argos, as an investment manager of infrastructure assets, operates under a framework of strategic coherence defined in its Sustainability Policy, which is in line with sustainable value creation. Our vision is to become consolidated as the most important infrastructure asset investment manager in the region, known for making highly socially, economically, and environmentally impactful investments. To do this, we firmly believe in the need to understand, prioritize and interiorize the effects of climate change within its business model, along with its physical and transitional risks and its opportunities for both our operations and throughout our value chain.

Thus, in 2022, we continue voluntarily reporting on our climate change management, according to the recommendations of the *Task Force on Climate Related Financial Disclosure* (TCFD), to proactively identify, manage, monitor, and disseminate our efforts and challenges in this area.

This is our third TCFD report, which ratifies our commitment to our stakeholders to transparently reporting our challenges, achievements, opportunities and challenges related to this topic. This report has been organized into four chapters: governance, strategy, risk and opportunity management, and climate change metrics and goals.

Under Corporate Governance, we describe the role of the Board of Directors as the highest executive entity on ESG affairs and for managing climate change related topics at the organization's strategic and tactical levels.

In the chapter on Strategy, we propose 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, and aligns its actions to minimize the impact that different climate scenarios could have on achieving the company's strategic objectives.

Risks and Opportunities describes the methodology used to identify, quantify, and manage these topics, intending to strengthen the organization's informed and timely decision-making, and continue generating value for all stakeholders, increasing the resilience of the Corporate Group's business.

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

Through this report, developed through joint, concerted work from different areas in the organization, we acknowledge 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.

# Governance

# 01

# Governance

## How we manage this from the Board of Directors

The Board of Directors is our highest executive body and has overall responsibility for managing and monitoring all our economic, environmental, and social risks and opportunities. Climate change has been included on its agenda to make it a relevant and strategic part of the organization's important definitions and decisions.

Thus, in 2020, the Board of Directors approved the Corporate Group's climate change strategy, developed together with our businesses, which defined $CO_2e$ emissions reduction targets for 2030 and other commitments assumed in response to trends in our global and national context and our stakeholders' needs and expectations. Our efforts in 2022 have focused on fulfilling this strategy.

Progress and performance regarding fulfillment of the climate change strategy and monitoring the associated risks are reviewed periodically by members of the Sustainability and Corporate Governance Committee and the Audit, Finance and Risk Committee to support the Board of Directors' activities.

For more information on our Board of Directors, the members of each of its committees, and the ESG topics each of them are responsible for, including climate change, please consult the 2022 ESG Databook.

Access our ESG Databook here or scan the QR code

### Board of Directors

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

### CEO

- Steering Committee

### CEO Committee

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

Our Corporate Governance, lead by our Board of Directors and the Sustainability and Corporate Governance Committee, regularly reviews the performance of climate strategy activities.



## How we manage this from the Management level

Implementation of the climate change strategy is the responsibility of Grupo Argos's Steering Committee. This committee ensures the responsible management and monitoring of the risks and opportunities associated with climate change. It's members are the CEO, the organization's C-Group, and the manager of the Urban Development Business. The Comprehensive Risk Management System (SGIR, in Spanish) is the methodological framework used to ensure identification, measurement, evolution, evaluation, and follow-up of the risks associated with the climate change strategy, as well as its alignment with the risk profile defined by the Board of Directors and the Steering Committee.

Additionally, we have a variable compensation system that incentivizes the fulfillment of strategic goals. Depending on the employee's organizational level, two types of variable incentives may apply: (i) short-term and (ii) long-term. In the definition of the compensation system indicators, sustainability elements are included, with a weight of at least 20%. Among the included indicators are those associated with climate change.

We also support our investments in the Cement, Energy, and Roadway Concessions businesses to make sure climate change risk mitigation and opportunity maximization is consolidated within their business strategies by 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 Corporate Group's CEO Committee meets quarterly to discuss these topics and share good practices, experiences, and action plans, and to generate synergies.

Table 1 describes the main topics discussed, the frequency with which they are discussed, and the risks and opportunities reported to the Steering Committee:

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

| Governing Bodies | Climate change related responsibilities and scope | Frequency | Main topics discussed in 2022 |
|---|---|---|---|
| Board of Directors | Define and follow-up the organization's strategy, including its climate change strategy as one of the organization's strategic risks, and monitor any ESG related risks and opportunities that may arise.<br>Guide the company's CEO on managing the business and the risks it faces.<br>Maintain a general, consolidated perspective of the Corporate Group's climate change strategy. | Semi-annual | Progress with the climate change strategy. Grupo Argos TCFD report. Double materiality and assurance approach. |
| Audit, Finance and Risk Committee | Review and evaluate risk management and propose any improvements deemed necessary, promoting the creation of a risk profile that is aligned with the Company's strategic objectives, including those related to climate change. | Annual | Report on the Internal Audit work plan for evaluating the sustainability area's controls on ESG issues. |
| Sustainability and Corporate Governance Committee | Make sure that Corporate Governance practices, including those associated with climate change, align with the provisions of the Code of Good Governance.<br>Have knowledge of and supervise implementation of the Board's action plan for each calendar year, which includes a session on sustainability.<br>Promote training for managers and directors on corporate sustainability topics. | Annual | Progress with the climate change strategy and goals achieved.<br>Goals of the organization's sustainability work plan.<br>ESG report standards, frameworks, and initiatives.<br>Grupo Argos TCFD report for 2021.<br>Loans associated with Sustainability indicators.<br>Main awards for ESG practices during 2021.<br>Double materiality and assurance approach. |
| Steering Committee | Evaluate Grupo Argos's position and propose action plans for the Corporate Group's climate change strategy.<br>Define climate change related guidelines for the businesses. | Quarterly | Progress with the climate change strategy.<br>Emissions reduction targets, climate risks, and commitments to creditors tied to sustainability indicators.<br>Double materiality analysis results that incorporate the perspective of our different stakeholder groups. |
| CEO Committee | Frame the businesses' strategies within the Corporate Group's climate change strategy.<br>Proactively manage and monitor climate change risks and opportunities<br>Create synergies and share experiences that will allow us to attend to the needs of one business with the capacities available at the others.<br>Identify opportunities related to new businesses or innovations applicable to their business model. | Quarterly | Work plan for strategy implementation.<br>Work plan for implementing the strategy's targets and commitments and following up loans tied to sustainability indicators.<br>Double materiality analysis results that incorporate the perspective of the Corporate Group's different stakeholder groups. |



**Martinsburg Plant Cementos Argos**
United States

## Vision for the Future

In 2023, we will present the following topics to the Board of Directors as part of the follow-up of climate-change initiatives: fulfillment of the Corporate Group's climate change strategy, Scope 3 goals for Grupo Argos, and carbon neutrality.

In 2023, the long-term variable compensation system will measure fulfillment of target $CO_2$ values for the companies in Grupo Empresarial Argos according to approved work plans.


# Strategy

# 02

# Strategy

**Celsia Solar Yumbo**
Valle del Cauca

Grupo Argos's current vision is to become consolidated as the most important infrastructure asset investment manager in the region, known for making highly socially, economically, and environmentally impactful investments. This model will allow us to attract institutional capital to both compensate Grupo Argos's intellectual capital and to leverage future growth and continue building an outstanding story of third-party asset management.

To fulfill this strategy, and understanding the contest and the speed at which we must move considering global environmental needs, social gaps, and corporate governance, we firmly believe in the need to understand, prioritize, and internalize the effects of climate change within our proposed business model.

In parallel, we work permanently with our businesses to mitigate the risks and capitalize on the opportunities of climate change and to design any transformations required by capital assignment processes and short, medium, and long-term financial planning within this context. To achieve this alignment, the Corporate Group assists with and fosters the following processes within its businesses:

- Definition of annual climate change goals based on 2030 roadmaps.
- Make sure executive compensation is aligned with goal fulfillment.
- Define action plans for 2030 to 2050.
- Proactively manage climate change related risks and opportunities, including their alignment with the company's financial affairs.
- Periodically report progress to the Board of Directors' Sustainability and Governance committees and to the Board of Directors at least once a year.



We have a cross-cutting Climate Change strategy with actions to mitigate and offset the Corporate Group's carbon footprint and to promote actions to adapt our businesses to the effects of climate change. Our targets and commitments are:

**We will reduce our $CO_2e$ emissions by**
**46%**
**per million pesos in revenue compared to 2018**

**We will reduce our direct and indirect $CO_2e$ emissions by**
**37%**
**compared to the 2015 baseline**

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

1. Coordinate teams in the different companies to ensure fulfillment of the climate change strategy defined by the Corporate Group and its alignment with Science Based Targets (SBTi). To date, our roadway and airport concessions and cement businesses have approved Science Based Targets. We will also analyze the viability of defining SBTi aligned targets for Grupo Argos in its capacity as investment manager.
2. Participate in scenarios for building climate change related public policies in our target geographies, ensuring our contributions and understanding are considered by local governments and have a positive effect on climate change policy.
3. Promote the financial structuring of climate change projects that will allow us, as a Corporate Group, to enable short-term climate change solutions, accelerate the development of research and development initiatives for the main challenges of the infrastructure sector, and move forward with the company's conscious investment process so its capital flows are more and more aligned with the targets defined by the Group.

## Scenario analysis

A climate scenario is 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. To support the company's strategies we analyze 6 climate scenarios (table 2) to explore the risks and opportunities in a variety of hypothetical futures and identify potential affectations of our asset management strategy based on scenarios published by the *Network of Central Banks and Supervisors for Greening the Financial System* (NGFS).

**Cartagena Plant Cementos Argos**
Bolivar

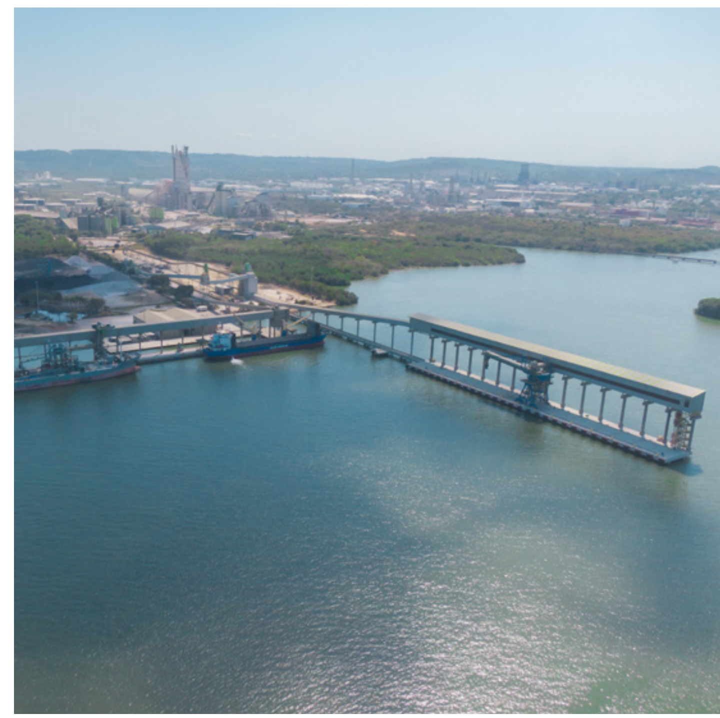


**Table 2** Climate scenarios

| Benchmark scenario | Description | Assumptions | Grupo Argos Response |
|---|---|---|---|
| **Net Zero 2050**<br><br>**(estimated temperature rise: 1.4°C)** | Ambitious scenario that limits global warning to 1.5 °C through strict climate policies and innovation, achieving zero net $CO_2$ emissions by around 2050. | Climate policies are introduced immediately. Net $CO_2$ emissions reach zero by around 2050. Physical risks are relatively low, but transition risks are high. | The technologies required for the transition to low-carbon economies are made viable.<br>The businesses in the portfolio adapt to global targets (e.g., Cement).<br>Our businesses maintain and/or improve their long-term competitiveness and profitability.<br>Our businesses adapt to physical risks (acute and chronic). |
| **Under 2°C**<br><br>**(estimated temperature rise: 1.6°C)** | The rigor of climate policy gradually increases, offering a 67% possibility of keeping global warming under 2°C. | This scenario assumes that climate policies are introduced immediately and become gradually stricter, although not as high as under Net Zero 2050. Net $CO_2$ emissions reach zero after 2070. Physical risks and transition risks are relatively low. | Technologies are not developed cost-efficiently creating a structure with “winners” and “losers”.<br>Our businesses have mixed results in terms of long-term profitability and competitiveness.<br>A diversification strategy allows developing and scaling some businesses in line with climate targets.<br>Physical risks are tolerable and businesses maintain their continuity and capacity for adaptation. |
| **Divergent Net Zero**<br><br>**(estimated temperature rise: 1.4°C)** | Net zero reached by 2050, but with higher costs due to divergent policies introduced across all sectors and a faster elimination of fossil fuels. | Assumes that climate policies are stricter in the transportation and construction sectors. Creates a situation where a lack of coordination between sector-based policies results in a great burden for consumers, while the decarbonization of energy and industrial supplies is less strict. This leads to considerably higher transition risks than under the Net Zero 2050 | Higher costs due to the materialization of transition risks.<br>Difficulty of the businesses to align with global targets.<br>Our businesses have mixed results in terms of long-term profitability and competitiveness.<br>Our businesses adapt to physical risks (acute and chronic). |
| | Ambitious scenario that limits global warning to 1.5 °C through strict climate policies and innovation, achieving zero net $CO_2$ emissions by around 2050. | scenario but, in general, the lowest physical risks of the 6 NGFS scenarios. | |
| **Delayed transition**<br><br>**(estimated temperature rise: 1.6°C)** | Annual global emissions will not decrease until 2030. Strong policies are required to keep warming under 2°C. | This scenario assumes that new climate policies are not introduced until 2030 and that action levels differ between countries and regions according to currently implemented policies. This means that emissions are temporarily higher than expected and reduce rapidly after 2030. This leads to greater physical and transition risks than the Net Zero 2050 and under 2°C scenarios. | Technologies are not developed cost-efficiently creating a structure with “winners” and “losers”.<br>Our businesses have mixed results in terms of long-term profitability and competitiveness.<br>Our businesses suffer important consequences due to the realization of physical risks. |
| **Nationally defined contributions**<br><br>**(estimated temperature rise: 2.6°C)** | Nationally defined contributions (NDC) include all per-country policies and commitments even if they have not yet been implemented. | Assumes a moderate and heterogenous climate ambition reflected by NDCs (low transition risks). Emissions decrease. However, this leads to 2.6°C in warming associated with moderate to severe physical risks. Transition risks are relatively low. | Gaps arise between countries and companies with more capital<br>New businesses are less competitive than global competitors.<br>Our businesses suffer important consequences due to the realization of physical risks. |

| Benchmark scenario | Description | Assumptions | Grupo Argos Response |
|---|---|---|---|
| Current Policies<br><br>(estimated temperature rise: +3°C) | Currently implemented policies are maintained, with high physical risk. | Emissions grow until 2080, which leads to global warming of approximately 3°C and serious physical risk. | Gaps arise between countries and companies with more capital<br>Our portfolio loses profitability due to regulatory responses and/or a lack of access to technology.<br>The organization does not manage to develop and scale businesses in line with climate targets.<br>Our businesses suffer important consequences due to the realization of physical risks. |

Pacifico 2 Operations Control Center
Antioquia

Likewise, an in line with our sustainability strategy, we continue focusing our efforts on different initiatives to ensure the Corporate Group's resilience and competitiveness:

**Nature-based solutions:** We are the private company that has made the most contributions to restoring forests in Colombia. We have planted over 15.2 million native trees from 2016 to 2022. In this way, we contribute to the operation and availability of ecosystem services while helping solve environmental and social issues, including climate change.

**Conscious Investment:** Climate change remains a part of due diligence processes for accepting mergers and acquisitions, including new projections of $CO_2e$ emissions, social impact using our Value Added Statement model, and action plans to make sure transactions are aligned with our climate targets to anticipate potential risks.

**Corporate Innovation and Ventures:** Project management, agreements with universities and research centers, and investment vehicles from Grupo Argos or our business for the early adoption and development of new technologies to improve the portfolio's competitiveness and increase its resilience, including energy storage initiatives, electrical infrastructure, and products and services with sustainable characteristics, among others. Thus, during 2022, together with Cementos Argos, we participated in 2 applied research projects on Climate Change with Universidad Nacional de Colombia.

**Internal carbon price:** We integrated the internal carbon price into the Corporate Group's climate change roundtable to strengthen its use as a climate change risk control and opportunity enhancement tool, also fostering its use in each business where the Group has invested, according to the geography, industry, and regulations in each of the countries where they operate.

## Vision for the Future

We will strengthen the construction of climate scenarios to invest in technologies and business models with high certainty and/or that are early in their development.

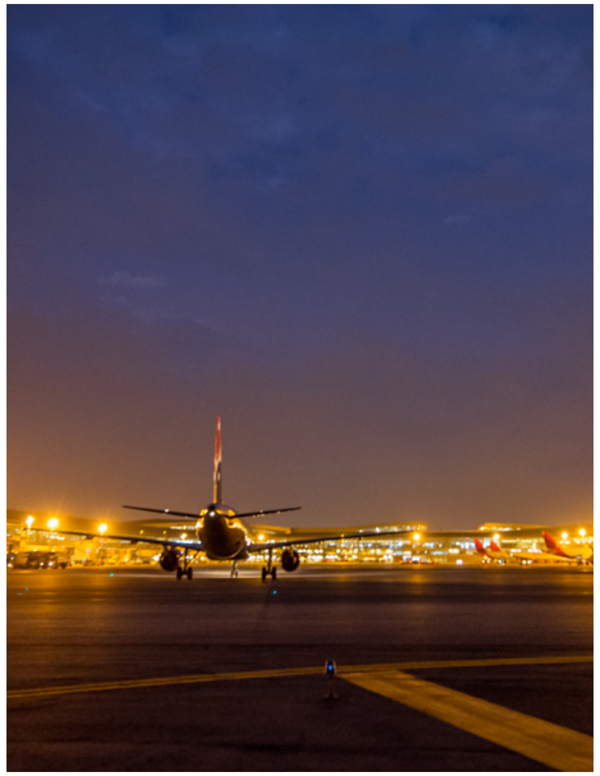
We will continue exploring innovation ecosystems related to $CO_2$ capture and reuse and other fields that allow us to meet our proposed goals.

Cementos Argos Mixer
Antioquia

# Risks and Opportunities Management

# 03

# Risk Management



El Dorado Airport
Bogotá D.C.

## Climate change risk analysis process

Our Comprehensive Risk Management System (SGIR, in Spanish) is an iterative and dynamic process that has the attention and participation of the entire organization and aims to improve decision-making while anticipating opportunities and/or threats to its strategic objectives.

The risk management process (Figure 1) enables identifying, analyzing, appraising, processing and monitoring events that could significantly affect these objectives, according to the following scheme:

SGIR aims to guarantee our companies' proposed long-term objectives by receiving feedback from different areas and sources of information, including strategic planning, strategic business risks, materiality analyses, conversations with stakeholders, and contextual trends.

The company also has a Corporate Risk Policy and Handbook that defines 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 mergers and acquisitions teams are responsible for incorporating climate change risks and opportunities for the industries where they have investments into their appraisal 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 these investment teams with understanding climate phenomena and integration with the business models, ensuring the companies have the tools to monitor and manage them. The risks team builds quantification models to make sure the risk-return relationship is consistent with investment objectives. Finally, risks and sustainability build trend dashboards and make recommendations on reporting standards for communicating risk management to stakeholders.

**Third line:** The 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 its environment, consider long-term trends and specific trends for the business, and define the path to ensuring the company's sustainability.

This exercise was last performed in 2021 and, together with an analysis by the Board of Directors and the Steering Committee, prioritized 6 strategic risks (Table 3), including climate change. Strategic climate change risk is analyzed using the COSO-WBCSD approach to ensure its proper identification, measurement, and management, making sure its impact is contained by our capital assignment and structure models.

### Risk Identification

Find and recognize the risks that inhibit achievement of corporate objectives

### Risk Analysis and Appraisal

Understand the risk's nature and characteristics, appraise it both qualitatively and quantitatively, and support decision-making.

### Risk Management

Implement different risk management options according to the company's objectives and criteria and its available resources.

### Risk Monitoring

Review and improve the quality and efficacy of the process's design, implementation, and outcomes.

**Table 3.** 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 having the required talent. |
| Technology and cybersecurity | Failures in the technological platform that enables asset competitiveness and efficient cybersecurity management. |

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

## Climate change risk quantification

**Physical risks**

According to S&P *Global Sustainable*, S&P Global's central source on sustainability intelligence, 92% of the world's largest companies have at least one asset with high exposure to the physical danger of climate change by the 2050s, increasing to 98% by the 2090s in a BAU trend scenario.

To identify the vulnerability of our physical assets, and with assistance from the Suramericana geoscience area, we have georeferenced and estimated the losses expected by business, geography, and type of risk of the installations where the Corporate Group operates, and evaluated multiple natural threats: hurricanes, floods, droughts, tropical cyclones, electrical storms, among others.

After prioritizing the facilities with the greatest threats and comparing their exposure to the limits insured by each company's insurance programs, their physical and residual impact was calculated in terms of Ebitda (discounting contracted insurance amounts), which are defined as follows (Table 4).

**Table 4.** Impact from the physical risks of climate change

| Company | Threat | Impact of physical risks (USD mn) | Residual risk (USD mn) |
|---|---|---|---|
| Cementos Argos* | Floods Landslides Hurricanes Atmospheric discharges Freezes Forest fires Intense rains Heatwaves Droughts Gales. | 70 | 20 |
| Celsia** | Hurricanes Landslides Floods Forest fires Atmospheric discharges. | 180 | 1.3 |
| Odinsa*** | Floods Intense rains Hurricanes Landslides Electrical discharges Gales Droughts Forest fires Earthquakes Storms. | 22 | 16 |

** Cementos Argos decided to prioritize the quantification exclusively of its Cement plants, since they represent the highest cumulative exposure and, therefore, the greatest strategic risk for the company.*

*** Corresponds to the estimated losses from analyzed affected and uninsured distribution and transmission lines. Drought-associated losses, estimated at USD 48 million, are contained in the transition risk evaluation performed by the CELSIA team.*

**** The valuation of Odinsa does not consider physical risk estimations for the Pacífico 2 concession.*

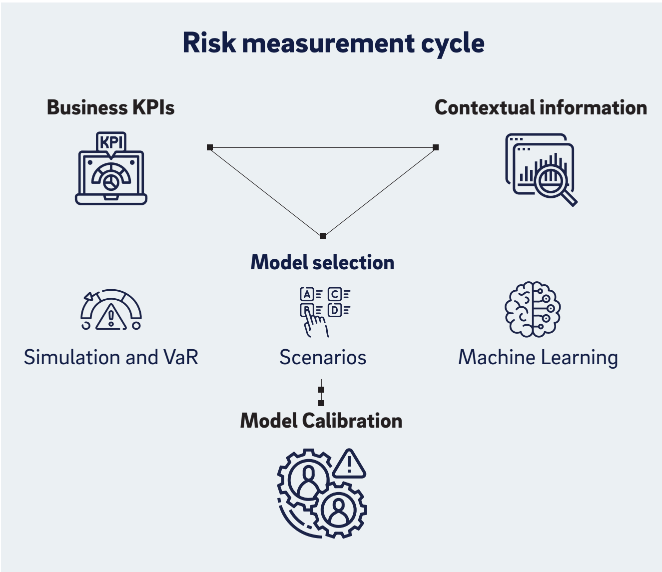
*No material risks associated with climate change were identified for Grupo Argos.*

*Residual values correspond to limited coverage and deductibles.*

**Transition Risks**

Our qualitative analyses are complemented by quantifications that allow us to estimate short, medium and long-term impacts based on variable projections and narratives deriving from climate scenarios, to use objective criteria to define the impact of transition risks, and to evaluate any mitigation actions implemented by the organization.

The following diagram (figure 4) shows the risk measurement dynamic:




As regards the risk quantification approach, Celsia calculates the Value at Risk (VaR) using Montecarlo simulations in its financial models, incorporating extreme phenomena and changes in hydrological contributions and identifying their short-term effects upon generation, market prices, taxes associated with emissions reductions, and Transmission and Distribution quality indicators. In the long term, the variables considered mainly affect energy availability and contract prices. The opportunities identified and quantified during this exercise include the inclusion of a renewable portfolio (mostly solar and wind) which, as they complement the water cycles of its generation plants, are a natural alternative for coverage. Parametric hedges are included to mitigate financial and other risks associated with climate change, alongside high-efficiency thermal coverage like El Tesorito.

Cementos Argos bases its assessment on a heat map of climate change risks that shows annual impacts under a certain percentile, and a climate VaR model that quantifies the financial gains and losses of the potential materialization of climate change risks and opportunities in the short (2030), medium (2040), and long term (2050). Risk materialization is modeled based on a definition of climate scenarios, random variables, and key assumptions, either through expert opinion, or by analyzing historical and prospective patterns, and sensitive mostly to carbon tax, fuel use, and ETS: *Emissions Trading Systems* according to each country's regulations.

**Martinsburg Plant Cementos Argos.**
Georgia

To quantify its climate change risks, Odinsa carried out sensitivity analyses for each concession, according to each one's characteristics and specificities. To do this, it applied a qualitative risk appraisal approach to prioritize the risks that 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 appraised 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. Given this, for physical and transition risks, 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.

*The following table (Table 5) summarizes the descriptions and impacts of transition risks, together with certain mitigation and adaptation strategies.*

**Cartagena Plant Cementos Argos**
Bolivar

**Table 5.** Impact of transition risks

| Company | Transition Risk Description | Potential impact Transition risks | Mitigation and adaptation |
|---|---|---|---|
| Cementos Argos | • Implementation of Emissions Trading Systems in the company's countries of operations<br>• New or higher carbon taxes on fossil fuel emissions or consumption<br>• Increased costs of raw materials<br>• Uncertainty in energy markets<br>• Increased cost of retention and risk transfer<br>• Depreciation or early replacement of existing assets due to technological obsolescence<br>• Restrictions on access to capital, credits and the like, as the production process is $CO_2$ emissions intensive | • ~ 8% of Cementos Argos's Annual EBITDA | • Technical and Financial Roadmap<br>• Climate Change Adaptation Plan |
| Celsia | • Regulatory<br>• Technological<br>• Market | • ~ 7% of Celsia's Annual EBITDA | • Renewable energy generation<br>• Energy efficiency portfolio Sustainable mobility infrastructure<br>• Carbon markets<br>• ReverdeC Program (watershed improvements, which translate into water resource conservation and contributes to capturing $CO_2$).<br>• 2022 Carbon neutral certified |
| Odinsa | • Changes to technical design and construction conditions.<br>• Changes in conditions exter-nal de roadway and airport operations that modify the infrastructure usage model | • ~ 1% of Odinsa's Annual EBITDA | • Efficient operations<br>• Renewable energy use<br>• Sustainable procurement<br>• Native tree planting<br>• Habitat protection and restoration along our concessions |
| Grupo Argos | • Limited access to capital due to climate change requirements.<br>• Impaired value of investments or assets due to changes in regulations, operating standards, or other stakeholder requirements. | • ~ 1% of Grupo Argos's Annual EBITDA | • Corporate Group climate change strategy<br>• Grupo Argos carbon neutrality<br>• Conscious investments |

**Newberry Plant - Cementos Argos**
United States

# Opportunities

Besides the risk identification exercise, we also explored our opportunities, analyzing which could materialize in the short, medium and long term (Table 6):

**Table 6.** Quantification of opportunities arising from climate change

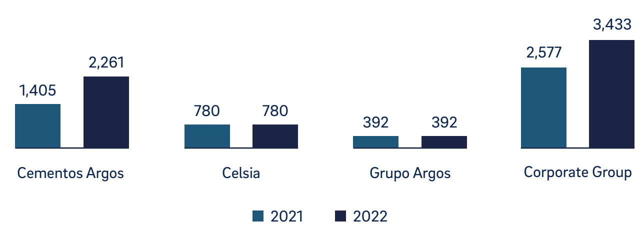
| Company | Short-Medium Term Opportunities (<5 years) | Long-term opportunities (>5 years) |
|---|---|---|
| Celsia | • Massification of non-conventional energy generation sources<br>• Distributed generation<br>• Energy efficiency services | • Massification of electric mobility<br>• Microgrids<br>• Batteries and energy storage<br>• Intelligent measurement and use systems<br>• Hydrogen<br>• Carbon markets participation<br>• Emissions capture and use (CCU) |
| Cementos Argos | • Access to new markets through climate change adaptation solutions.<br>• Energy efficiency (biofuels, renewable sources and alternative fuels)<br>• Waste reuse and circular economy<br>• Sustainable financing | • Development and/or expansion of low-emission products<br>• More efficient production and distribution processes.<br>• Emissions capture and use (CCU)<br>• Electric kilns<br>• Hydrogen |
| Odinsa | • Circular economy for building roadway projects<br>• Energy efficiency on roads and airports<br>• Sustainable financing | • Transport infrastructure to support electric mobility<br>• Use of adjacent plots to generate renewable energy or for forestry projects<br>• Development of climate-resilient infrastructure. |
| Grupo Argos | • Sustainable financing | • Take advantage of our role to attract long-term investors thanks to sectoral positioning and ESG knowledge. |

**Túnel Aburrá Oriente**
Antioquia

In line with efforts to drive sustainable financing at our Corporate Group and our commitment to achieving ESG targets, we ended 2022 with COP 3.4 trillion in consolidated sustainable debt, or 20.7% of overall debt, a 33% increase compared to 2021. Additionally, and although it is not consolidated, it is worth mentioning that in 2022 we concluded a COP 840 million loan with social certification for the Pacifico 2 concession and a COP 235 billion ESG credit for the Celsia solar platform. Adding these loans together, the Group's total sustainable debt would be COP 4.5 trillion.

On a separated level, fulfillment of loans tied to climate change and gender equality indicators enabled savings of over COP 900 million in 2023.

The evolution of the Corporate Group's sustainable funding can be found below:




## Subsidiary relations according to their climate change risks

Besides the process described in the Governance chapter, the main relationship between Grupo Argos and its businesses associated with climate change risks arises from participation by Grupo Argos's high level Steering Committee on the businesses' Boards of Directors, where they discuss management mechanisms implemented by the administrations and follow up 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 business risks, to make sure business fundamentals and trends are connected to the managed portfolio and share synergies and good practices, understanding the specificities of each business. Grupo Argos' risk team is also in ongoing contact with the risk teams in its strategic businesses, according to the following principles:

1. Quarterly reports to the holding company's risk area on strategic risks at its subsidiaries.
2. Monthly meetings between risk areas of the holding company and the subsidiary to follow up on key issues.
3. Expanded risk committees for monitoring global and business risks. The businesses' vision focuses on organizational resilience and adaptation to climate change.

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.

## Vision for the Future

- In 2023, we will continue identifying new risks and opportunities. we will also use new approaches and improve the implementation of *machine learning* models for their quantification.
- We will continue to strengthen sustainable financing and increase the overall share of sustainable funding used.

## Metrics and Indicators

# 04

# Metrics & Indicators

At Grupo Argos we are committed to actively contributing to a transition to a low carbon economy, because we understand that climate change represents a strategic, tactical and operational challenge for all companies and for society. Therefore, our efforts focus on minimizing the negative and maximizing the positive impacts of our investments and operations, accelerating the energy transition, increased decarbonization solutions, and transforming carbon intensive businesses to models aligned to ambitious initiatives and goals, generating value for all our stakeholders and increasing the resilience of our Corporate Group's resilience.

It is therefore vitally important to have the right metrics to translate climate change risks into reliable, easy-to-understand terms that will allow monitoring them effectively over time, aiming for continuous improvement. In 2022 we made progress with revealing scope 3 emissions as a measure of transparency towards our stakeholders. We set a scope 3 (categories 1, 2, 3, 5, 6, 7, 13) emissions intensity target of 12 kg $CO_2e$/MM COP of revenue and we will be certified as carbon neutral in scope 1, 2 and scope 3, category 6. In 2022, Grupo Argos' scope 3 emissions per million in revenue were 27 kg $CO_2e$/MM COP

**By 2022 we will certify Grupo Argos's carbon neutrality for scope 1, 2, and scope 3, category 6.**
**We defined a reduction target of scope 3 emissions for Grupo Argos of 12 kg $CO_2e$/Million COP in revenue (a 64% reduction compared to the baseline year 2021).**

**Table 7.** GHG emissions indicators for Grupo Argos

| Indicator | Unit | Values for each year | | | |
|---|---|---|---|---|---|
| | | 2019 | 2020 | 2021 | 2022 |
| Direct GHG emissions (Scope 1) | $tCO_2e$ | 210 | 114 | 146 | 228 |
| Indirect GHG emissions (Scope 2) | $tCO_2e$ | 39 | 60 | 43 | 37 |
| Other indirect GHG emissions (Scope 3) | $tCO_2e$ | 22,013 | 21,373 | 19,108 | 21,907 |

## Grupo Empresarial Argos Climate Change Strategy

Although overall emissions (Scope 1 and 2) remained stable in 2022, we continued making progress with meeting our Corporate Group goals, especially in reducing the intensity of emissions per millions of COP in revenue, where we demonstrate the ability of our organization to generate increasingly sustainable value.

Additionally, as part of this progress, Cementos Argos and Odinsa ended 2022 with reduction goals validated by the Science Based Goals (SBT) initiative. In turn, Grupo Argos and Celsia will declare their carbon neutrality by 2022.

This is how 97% of the scope 1 and 2 emissions of our Corporate Group have science-aligned goals, certified by the SBTi initiative.

**97%**

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

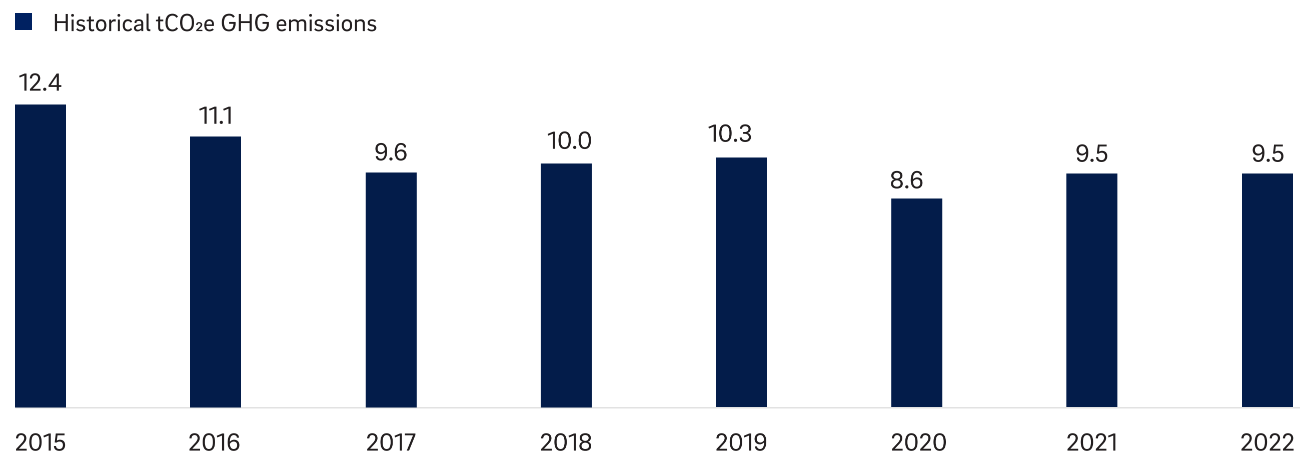



**Table 6.** Historical GHG emissions (in MtCO2e) for Grupo Argos consolidated

**Celsia Solar Comayagua**
Honduras

**Table 9.** GHG emissions indicators for Grupo Empresarial Argos consolidated

| Indicator | Unit | Baseline Year Values | 2019 | 2020 | 2021 | 2022 | Target Year Values 2030 |
|---|---|---|---|---|---|---|---|
| Direct GHG emissions (Scope 1) | $tCO_2e$ | 11,969,756 (2015) | 9,735,212 | 8,112,524 | 8,959,958 | 9,056,450 | |
| Indirect GHG emissions (Scope 2) | $tCO_2e$ | 415,605 (2015) | 523,356 | 501,957 | 526,327 | 462,546 | |
| Total GHG emissions (Scope 1 + Scope 2) | $tCO_2e$ | 12,385,362 (2015) | 10,258,568 | 8,614,481 | 9,486,285 | 9,518,996 | 7,803,358 |
| Indirect GHG emissions (Scope 3)* | $tCO_2e$ | | 4,350,324 | 4,175,087 | 4,155,366 | 4,849,695 | |
| Reduction in absolute direct and indirect CO2e emissions (2015 baseline) | % | | -17% | -30% | -23% | -23% | -37% |
| Intensity of direct and indirect emissions (2018 baseline) | $tCO_2e$ / MM COP | 0.72 (2018) | 0.63 | 0.62 | 0.60 | 0.46 | 0.39 |
| Variation compared to the 2018 baseline | % | | -13% | -13% | -17% | -36% | -46% |

***The relevant categories used by our investments during calculations of their total indirect GHG scope 3 emissions are the following:**

- For our construction materials investment, (Cementos Argos), relevant categories are: 1, 3, 4, 6, and 9. Categories that are not relevant but were calculated are: category 2, 5, 7, 10, 12 and 15. Finally, the categories definitly not relevant are: category 8, 11, 13 and 14
- For our energy investment, (Celsia), relevant categories are: 3, 5 and 6
- For Grupo Argos Holding, relevant categories are: 1,3, 5, 6, 7 y 13

## Vision for the Future

- From Grupo Argos, we will lead the articulation of work teams with members from the different companies to accompany action plans related to the fulfillment of the corporate group's climate strategy goals.
- We will define a Grupo Argos scope 3 emissions management roadmap to evaluate different initiatives to reduce emissions in our value chain.
- We will monitor the results of the most appropriate climate metrics for our strategy as an infrastructure asset investment manager.

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