



**VALUE ADDED
STATEMENT
METHODOLOGY
▶ 2022**



About this report

The main purpose of the Value Added Statement -VAS- is to illustrate the relative importance of our externalities. Calculations included in this Statement do not reflect our past, current, or future revenues nor are they part of our financial information.

Our VAS results should be considered illustrative as they are calculated using a customized model based on a set of assumptions. Current approaches may be perfected as new studies are available. In upcoming years, the results of prior VAS assessments may be restated according to new methodological adjustments.

Although we make the effort to provide precise and timely information in this Value Added Statement, we cannot guarantee an exact description of reality. Therefore, no measures should be implemented based on information revealed in this report without prior technical advice and an exhaustive assessment of the specific situation.

For more information on our VAS, please contact Margarita María González, Grupo Argos Director of Sustainability, at mgonzalez@grupoargos.com.



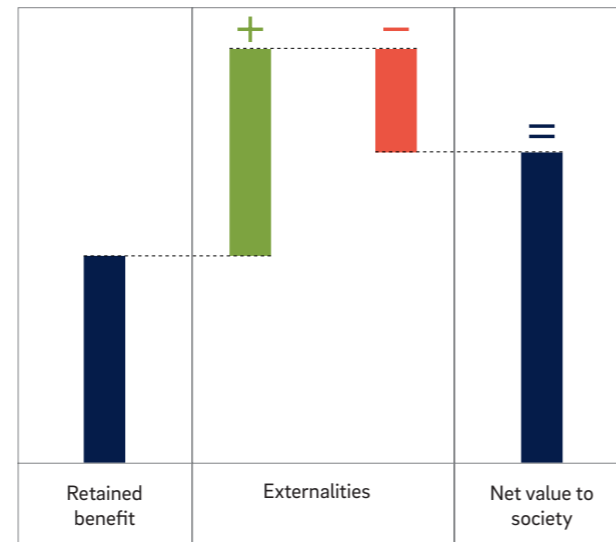
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Introduction

Thanks to the support and trust deposited in us by our shareholders to manage and monetize their capital, and to the talent of over 11,500 employees, we reaffirm our commitment to and belief in Grupo Argos's capacity for creating comprehensive value, its structural soundness, and the power of the strategy developed and implemented over the last decade to materialize its purpose of positive transformation.

This encourages to give more back to our environment than what we take from it, as we are aware of our responsibility as agents of social transformation. Therefore, we transcend our search for profitable growth, making decisions that consider the risks, opportunities, and impacts of our businesses and investments and contributing to our company's permanence over time.



Our model

We transform the different kinds of capital used by our operations into value. This includes financial, human and intellectual, social, and relational capital. Throughout this process, we generate negative and positive impacts. To measure these, we developed a Value Added Statement (VAS) that allows us to estimate the net value we deliver to our surroundings over a year.

Results are expressed in monetary terms using a bridge graph. It begins with a blue bar, representing the retained benefit for the period. The following bars represent economic, social, and environmental externalities that translate into benefits or costs for society. These amounts are expressed in dollars and are added up to obtain a net value, reflected by the final blue bar.

Pacífico 2
Antioquia



Externalities

For our separate analysis of Grupo Argos, we calculated nine economic, social, and environmental externalities that reflect our most relevant impacts.

1 Economic

Financial capital flows that boost the economy with payments that include salaries, interest to banks and investors, dividends to shareholders, and taxes to the State.

2 Social

Impacts associated with other activities, including: Income and benefits for employees who receive better compensation in the job market after receiving training, costs to employees and their families related to workplace injuries and illnesses and social investment that represents community well-being.

3 Environmental

The environmental and population impacts caused by direct and indirect (scope 1 and 2) greenhouse gas (GHG) emissions, potential water scarcity caused by consumption, and biodiversity impacts related to urban planning operations, as well as benefits from offset and rehabilitation programs.

Núcleo de Operaciones de Visión Avanzada (Advanced Vision Operations Core)
Valle del Cauca



Model Assumptions and Description

The model's scope covers our own operations and therefore does not include any positive or negative impacts from our value chain.



Túnel de Oriente
Antioquia

Retained benefit:

The result of subtracting income tax, interest, and dividends paid by the company from ebitda. This information is available in our financial statements that can be found in our Integrated Report under Separated Financial Statements as at December 2022.

Economic externalities:

Salaries and benefits, taxes, interest and dividends

Input: Payments effectively made during the year to our stakeholders, including employees, authorities, financial entities, investors, and shareholders.

Multiplier: The indirect effect, defined as increased demand and consumption in a local economy resulting from an injection of liquidity. This effect consists of:

- **GAV (Gross Added Value):** The percentage of initial expenditures injected across different sectors of the economy through increased consumption and spending by stakeholders. GAVs are taken from OECD input-output tables.

- **Backchaining:** Consists of one sector's capacity to directly drive other related sectors through the demand for intermediate consumer goods. We used OECD input-output tables developed by *W.W. Leontief* to interpret the interdependency between different sectors of the economy.

Assumptions: We started by calculating all monetizations for economic externalities assuming fully efficient local economies as regards resource distribution and economic impact. We then apply corrections for economic inefficiencies, to take into account external corruption-related actions - which we do not participate in - within the countries where we operate.

We calculate this correction using Transparency International's Corruption Perceptions Index for each country, which reflect the way in which external conditions can affect the company's social value creation.

Social externalities:

Occupational Health & Safety (OHS)

Input: Workplace illnesses and accidents (serious, moderate, and fatalities) and workplace illnesses of employees.

Multiplier: The social costs of injuries or fatalities according to the study done by *Safe Work Australia (2015)*, which estimates average costs to employees and communities on rehabilitation and medical care, administrative expenses, and current and future income lost.

Assumptions: Since monetization factors were expressed in Australian Dollars (AUD) for 2013, we adjusted the currency and the GDP so as to reflect overall costs for each region.

We did not consider the cost of accidents or workplace illnesses for the company, as we assume that these are already reflected by our financial results.

Talent development

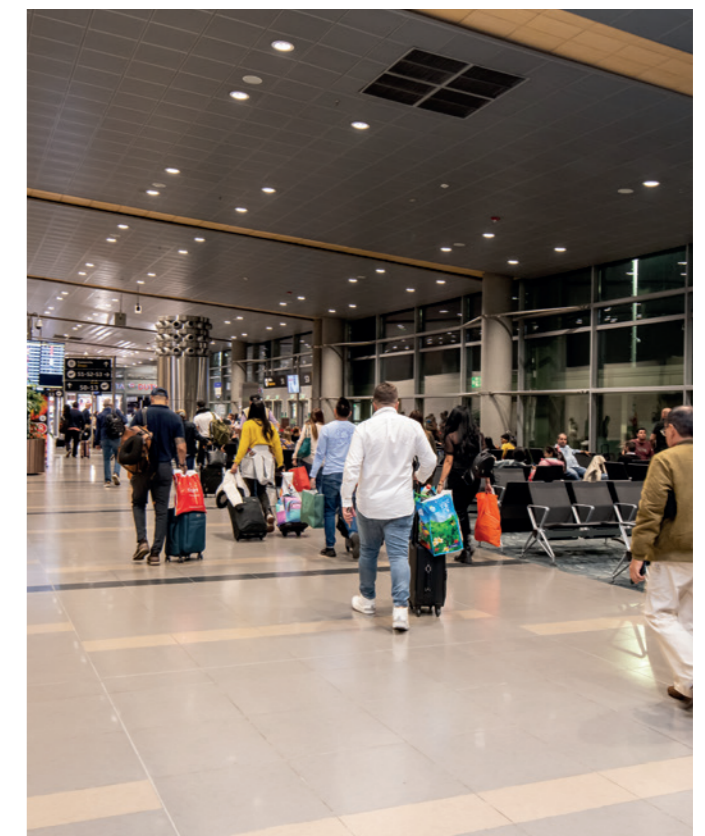
Input: The number of employees that leave the company and the number of hours of training during the period

Multiplier: The social return rate of education for a given level of training (*Montenegro & Patrinos, 2014*).

Assumptions: We carry out monetization based on the annual turnover rate and average hours of training of our employees. The effects of talent development become an externality once employees leave the company and receive a higher income

in the job market because of their higher qualifications. This approach allows monetizing this effect as the impact on the local economy arising from the additional salary received by employees when they get a new job.

Training for employees that remain at the company results in higher productivity and efficiency and, therefore, its effects are already reflected by our financial statements.



El Dorado airport
Bogotá



▶ Salvajina Hydroelectric Plant
Cauca

Community investment

Input: el valor de la inversión en las siguientes líneas: vivienda de bajo costo, infraestructura comunitaria, infraestructura educativa y becas.

Multiplier: Social Return on Investment (SROI). The following is the SROI multiplier used for each line of investment.

Low-cost housing: For Colombia, the Caribbean, and Central America we selected an average of four multipliers from different studies, while we used the calculations by *Mitchell & McKenzie* (2009) for the United States.

Community and educational infrastructure: For Colombia we chose Clavijo et. al. (2014) as a reference. For the Caribbean and Central America we used average multipliers for Brazil, Mexico and Argentina published by *Standard & Poor's* (2015). Calculations for the United States are based on *Cohen et. al.*, (2012).

Scholarships: We used the OECD (2017) private internal return rate for investments in education. The Chile multiplier was used for Colombia, the Caribbean and Central America.

Assumptions: We used the SROI to calculate community benefits brought by a specific project in a given location as a ratio of each monetary unit invested in the project. We applied a specific SROI for each region or country where we operate, selecting the closest methodological benchmark or performing approximations to adjust to local realities.

For the energy supplied in Haiti by our subsidiary Cementos Argos, we assumed that savings on electrical bills by beneficiaries will result in increased internal spending throughout different sectors of the country's economy. We thus used energy prices for Haiti from the *Bloomberg New*

Energy Finance Industry Intelligence Database and calculated the boost to the economy of this expenditure using the same multiplier for our economic externalities.

Environmental externalities:

Greenhouse gas (GHG) emissions

Input: Tons of Scope 1 & 2 CO₂ emissions.

Multiplier: Social Cost of Carbon (SCC), that reflects the harm to society from GHG emissions during their life in the atmosphere. We use the United States Environmental Protection Agency (EPA, 2016) estimate.

Assumptions: The EPA SCC is adjusted annually by inflation plus a 4% discount rate according to the options provided by the study. However, estimates vary according to the discount rate applied, which determines the present value of future damages. This cost includes changes in net agricultural productivity, human health, material damages from increased risk of flooding, and the value of ecosystem services due to climate change.

Atmospheric emissions

Input: Mercury, sulfur oxides (SO_x), nitrogen oxide (NO_x) and particulate matter (PM) emissions.

Multiplier: The *TruCost* (2013) social cost of atmospheric emissions.

Assumptions: This cost includes the impact on human health (approximately 90% of the total cost), forest and agricultural yields, material corrosion, and water acidification.

Due to data availability, we calculated the negative impact of particulate matter (PM) based on the cost of PM₁₀ (related to particular size), while the impact of sulfur oxide SO_x emissions are based on SO₂. This scope also includes nitrogen oxide (NO_x) emissions. The impact of atmospheric emissions depends on the population density of the areas where we operate. As an assumption, we use the average cost of atmospheric pollutants used by the study.

The scope of mercury emissions for our cement business covers 90% of our operations.

Water consumption

Input: Water consumption for all operations which includes non-consumptive direct use and indirect use (value for recreation, biodiversity, groundwater recharge, waste assimilation).

Multiplier: The social cost of water consumption in a specific territory according to the *Natural Capital at Risk* study developed by *TruCost* (2013).

Assumptions: This approach assumes that the social cost derived from water use varies depending on its scarcity in a given territory. Therefore, we classify water sources for our operations according to their water stress levels, defined with the help of the *WRI Aqueduct Tool*, as a ratio of the total water used by the industry, agriculture, and the domestic sector, and total water available in a given basin. The higher the level of water stress the higher the social cost of water.

▶ Guanacaste Wind Park
Costa Rica



Biodiversity

Input: Total hectares affected and rehabilitated classified according to the type of ecosystem.

Multiplier: Estimated annual benefits of restoration projects in different ecosystems around the world (TEEB, 2009).

Assumptions: We excluded areas of the concrete plants that had been built on previously built-up areas, and we therefore assume that they have no additional impact on biodiversity.

Alternative fuels and materials

Input: Tons of alternative fuels and materials used and the tons of traditional fuels and materials no longer used in productive processes.

Multiplier: Carbon social cost (CSC), the same multiplier used for greenhouse gas emissions.

Assumptions: Given that the alternative materials and fuels used are waste or byproducts, we do not include the negative impact of manufacturing them.



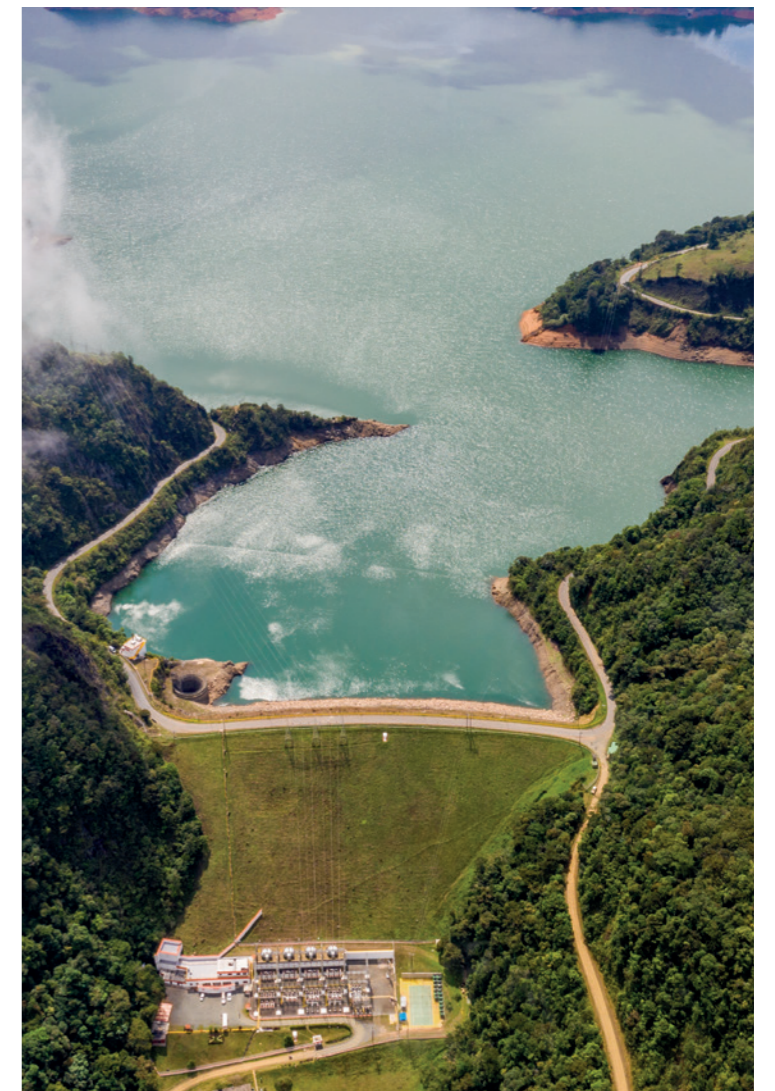
Updates to the Model

Our model is constantly updated and refined, using the most recent approaches and studies for our impact assessment.

We carry out a comparative analysis each year to identify opportunities for improvement in any of the following areas:

- Definitions and measurement tools for inputs
- Calculation methodologies
- Multipliers

No changes were made to calculation methodologies or the multipliers used in 2022.



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