2024
CLIMATE
ACTION
REPORT

years building a more sustainable world

ACEROS AREQUIPA

2024
CLIMATE ACTION REPORT

60 YEARS

TRANSCENDING
IN THE REGION

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CHAPTER 1

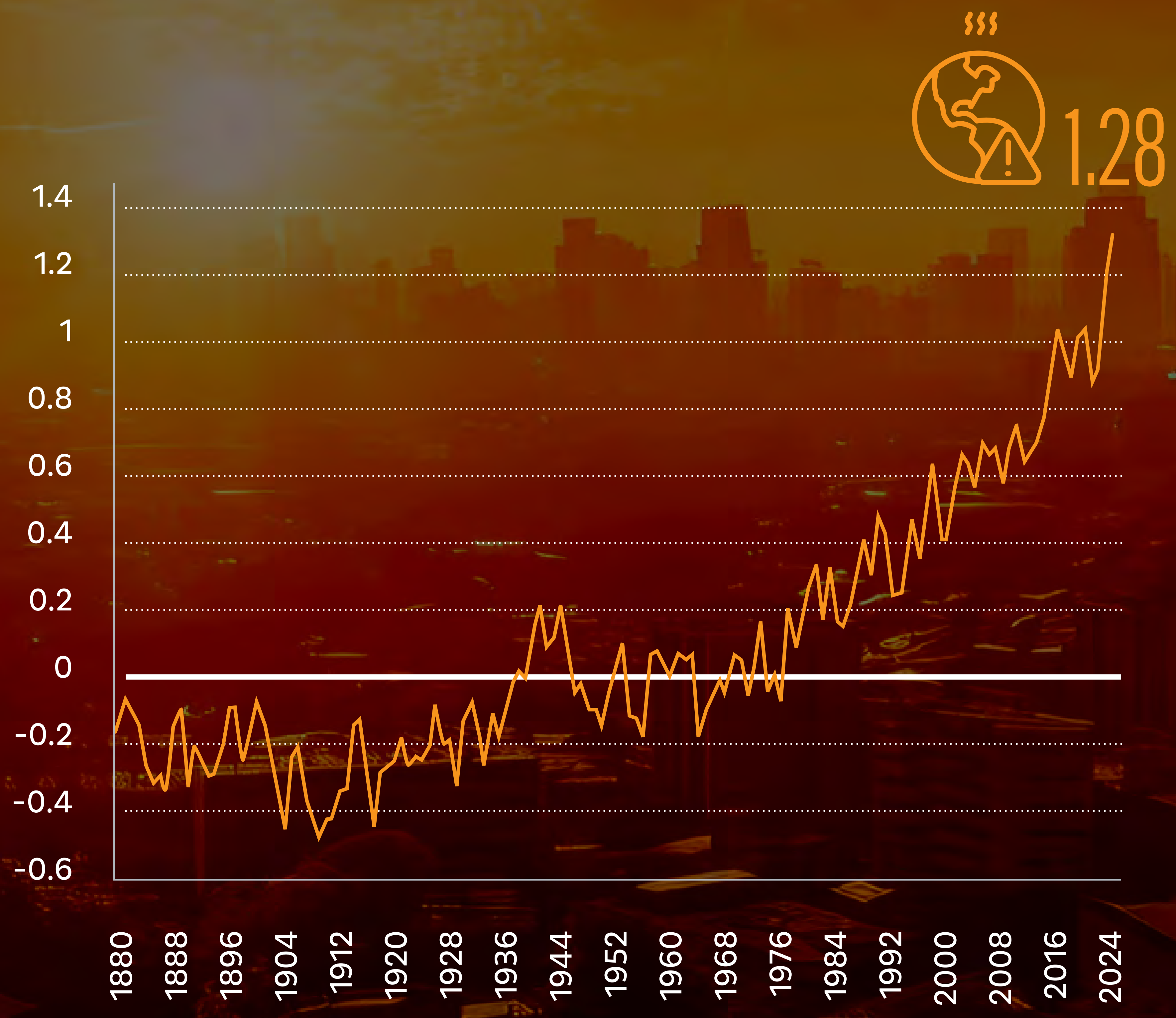
INTRODUCTION

1.1 Climate Change and Its Effects

Climate change has ceased to be a future risk and has become a present reality. According to the 2025 Global Risks Report from the World Economic Forum (WEF), extreme climate events represent the second global risk in the next two years and the primary global risk in the coming decade. Each year, its effects become more evident, driven by the increase in CO_2 emissions in the atmosphere due to the continued use of fossil fuels such as coal, oil, and others. This has intensified the frequency and severity of extreme weather events. Recent examples include heatwaves in Asia, floods in Brazil, Indonesia, and Europe, wildfires in Canada, and hurricanes Helene and Milton in the United States.

→ GRAPH 1

GLOBAL LAND AND OCEAN TEMPERATURE INDEX (Change in global surface temperature compared to the long-term average from 1951 to 1980)



Source: NASA's Goddard Institute for Space Studies (GISS)

2024 HAS BEEN THE HOTTEST YEAR ON RECORD

+1.2 ºC RECORD ANOMALY IN GLOBAL SURFACE TEMPERATURE

10 THE LAST 10 YEARS HAVE BEEN THE WARMEST IN RECORDED HISTORY

Source: The Cost of Inaction: A CEO Guide to Navigating Climate Risk 2024 World Economic Forum

→ SEVERE CHANGES IN LAND SYSTEMS CAUSED BY CLIMATE CHANGE COULD AGGRAVATE THE IMPACTS

Main Effects

Intensification of the frequency and severity of extreme weather events.

- EXTREME HEAT
- FLOODS
- DROUGHTS
- RISING SEA LEVELS
- STORMS
- WILDFIRES

THE IMPACT OF CLIMATE CHANGE COULD SERIOUSLY DAMAGE THE GLOBAL ECONOMY

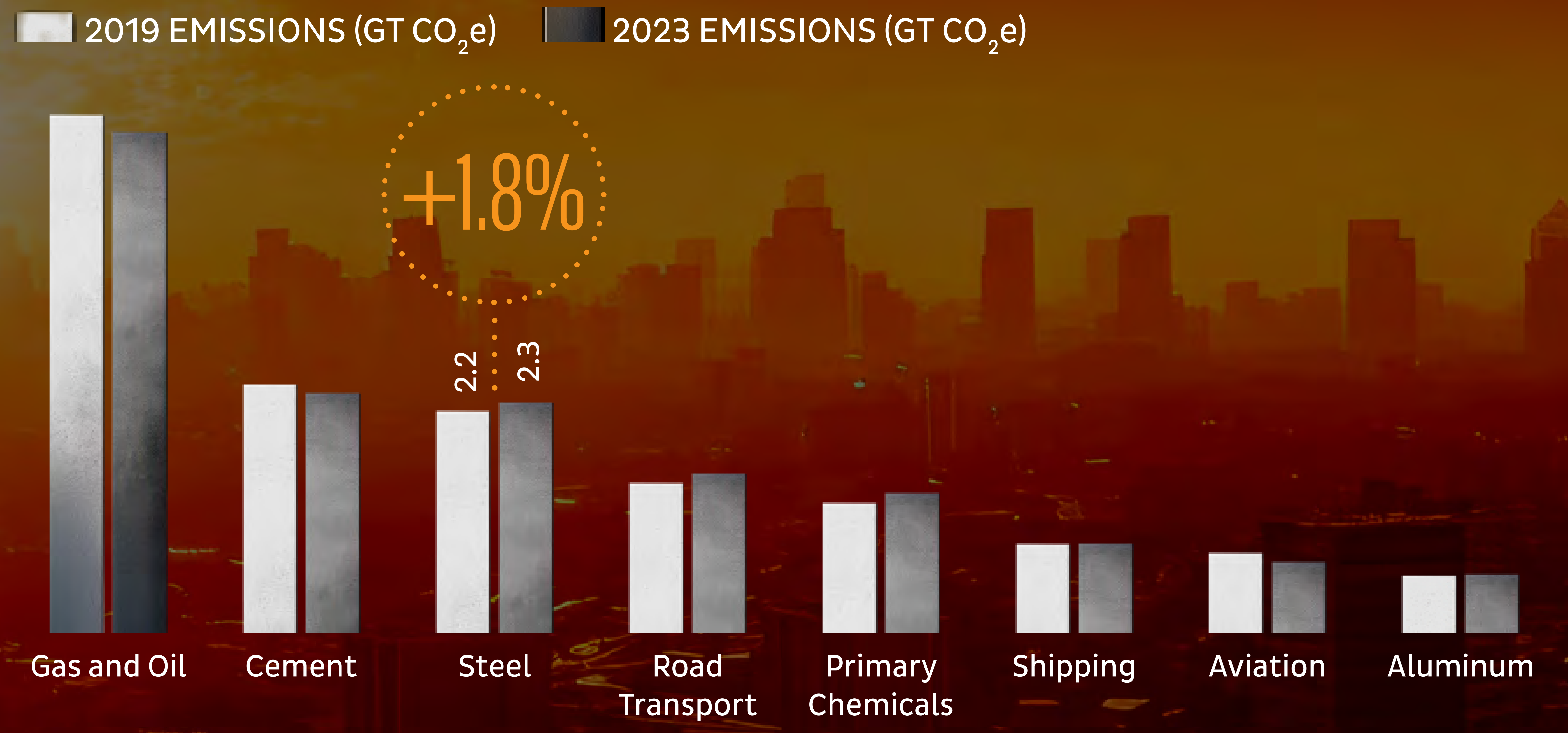
Climate change has caused damages exceeding US$3.6 trillion since 2000. If urgent action is not taken, global GDP could fall by up to 22% by 2100.

Source: The Cost of Inaction: A CEO Guide to Navigating Climate Risk 2024 World Economic Forum

→ THE STEEL INDUSTRY AND CLIMATE CHANGE

The steel industry plays a key role in mitigating climate change, as it is responsible for approximately 7% of global CO_2 emissions, according to the International Energy Agency (IEA). In this context, the pressure for companies in the sector to adopt concrete decarbonization plans and move toward carbon neutrality is increasing. Achieving this requires a transition to cleaner energy sources, such as green hydrogen, as well as optimizing the use of natural resources. Furthermore, sustainability in the sector involves not only reducing emissions but also ensuring responsible environmental management that preserves biodiversity and minimizes ecosystem impacts.

→ GRAPH 2
ABSOLUTE CO_2 EMISSIONS IN GT BY SECTOR 2019 VS. 2023



7%
CONTRIBUTION TO GLOBAL CO_2 EMISSIONS

2.8 Gt CO_2
EMISSIONS FROM SCOPE 1 AND 2

1.8%
INCREASE IN EMISSIONS (2019-2023)

1.91 tCO_2/t
WORLDSTEEL GLOBAL AVERAGE OF CO_2/T HOT-ROLLED STEEL (2023)

83%
OF THE FUEL MIX IS FOSSIL-BASED (2022)

X1.3
STEEL DEMAND BY 2050 VS 2023 IN THE NZE SCENARIO

Source: Net-Zero Industry Tracker 2024 World Economic Forum

1.2 Climate Change Trends for Aceros Arequipa

We have identified key trends that may impact our strategic goals, with climate change-related trends being fundamental to our analysis. We use the WEF's Strategic Intelligence tool and review sources such as IEA, Global Risks Report, Worldsteel, Alacero, OECD, IMF, Steel Overcapacity Forum, among others. The Board of Directors annually reviews the Corporate Strategic Plan, which incorporates the analysis of trends, risks, and opportunities, including those related to climate change. It also oversees the sustainability strategy, which includes our climate-related goals and action plans, in line with the recommendations of the TCFD. These matters are included in the Board's annual agenda.

→ KEY TRENDS ASSOCIATED WITH CLIMATE CHANGE:

HIGHER DEMAND FOR RECYCLED STEEL

The IEA projects that by 2050, recycled steel will account for 48% of the metal input in steel production. Similarly, Boston Consulting Group estimates that the global demand for recycled steel will grow faster than supply (3.3% vs. 3%), creating a gap of 16 million tons by 2030, driven by the transition to lower-emission steel.

ROLE OF GOVERNMENT IN CLIMATE CHANGE

Governments are increasing investments in climate action to accelerate the transition to low-carbon economies. Measures such as renewable energy incentives, resilient infrastructure, and stricter regulations aim to mitigate climate change and promote sustainable growth. Latin America faces challenges in climate action due to a lack of infrastructure and effective policies to drive the transition to a sustainable economy.

CARBON TAXES ON STEEL PRODUCTS

Carbon taxes and emissions trading schemes are key measures to mitigate greenhouse gas (GHG) emissions by assigning a cost to pollution. Policies like the EU Emissions Trading Scheme (ETS) and the Carbon Border Adjustment Mechanism (CBAM) seek to discourage the use of carbon-intensive technologies in sectors such as steel and cement. However, global standardization gaps and regulatory complexity can weaken their impact. In Peru, such measures are not expected to be implemented in the short term, as only 7% of carbon emissions come from industrial sectors.

NET ZERO STRATEGIES IN THE STEEL INDUSTRY

The IEA estimates that the steel industry generates 7% of global CO_2 emissions, and demand for steel is expected to grow by 32% by 2050, driven by urbanization, industrialization, and the expansion of green energy infrastructure. To mitigate its impact, the sector must reduce emission intensity through three main levers: electrification, hydrogen use, and higher energy efficiency.

NEW ENERGY SOURCES

The IEA projects transforming production technologies and energy use to achieve nearly carbon-neutral steel. This includes adopting clean sources like green hydrogen, which could replace coal in iron ore reduction or be applied in other steel manufacturing processes.

1.3 We are Aceros Arequipa

We are a leading steel company committed to environmental care. We produce steel using electric arc furnace (EAF) technology with a circular economy and eco-efficiency approach, which allows us to maintain a significantly lower carbon footprint than the regional and global average.

1.3 MILLION
TONS OF RECYCLED STEEL (2024)

99%
OF OUR RAW MATERIALS FOR STEEL PRODUCTION ARE FROM RECYCLED SOURCES (2024)

0.39
EMISSIONS RATIO PER TON OF LIQUID STEEL (2024)[1]

CAASA 0.39[1]
Alacero (Latam average)[2] 1.55
WorldSteel (Global average)[2] 1.91

+US$ 500 MILLION
INVESTED IN PROJECTS WITH ECO-EFFICIENCY COMPONENTS IN THE LAST SIX YEARS

ALL OUR MAJOR INVESTMENTS INCLUDE AN
ECO-EFFICIENCY OR GHG REDUCTION COMPONENT

<1/3
THE EAF TECHNOLOGY EMITS, ON AVERAGE, LESS THAN ONE-THIRD OF THE GHG EMISSIONS GENERATED BY BLAST FURNACES (BOF)

WorldSteel (BOF) 2.33
WorldSteel (DRI EAF) 1.37
WorldSteel (Scrap EAF) 0.68

[1] The CO_2 emissions ratio per ton of liquid steel in 2024 was updated after the publication of our Integrated Report.
[2] The CO_2 emissions ratio per ton of liquid steel from Alacero corresponds to 2022, while Worldsteel's data corresponds to 2023.


CO2

1.4 Key Milestones of 2024

100%
RENEWABLE ENERGY CONSUMED IN FURNACE NO. 2

0.257752 MILLION M^3 OF WATER
REUSED IN OTHER PROCESSES

HUELLA DE CARBONO | PERU ★★★★
REDUCCIÓN+ 2023

Member of
Dow Jones Sustainability Indices
Powered by the S&P Global CSA

TOP 5
GLOBAL STEEL INDUSTRY

SIGNING OF OUR COMMITMENT TO ALIGN WITH THE SCIENCE BASED TARGETS INITIATIVE (SBTI)

to establish science- and technology-based emission reduction targets.

SCIENCE BASED TARGETS

IMPLEMENTATION OF THE VERTICAL LIME KILN

This innovation reduces more than 2,000 tons of CO_2e per year, improves operational efficiency, and reduces our carbon footprint.

EXPANSION OF THE SUSTAINABLE TRUCK FLEET

A sustainable transportation philosophy using compressed natural gas instead of diesel, reducing our carbon footprint.

SUPPLY OF DESALINATED WATER

We partially replace groundwater extraction with water from a desalination plant.

CALCULATION OF THE CARBON FOOTPRINT BY PRODUCT

For the first time, we calculated the carbon footprint of 1/2” BACO and 2.5” round bars under ISO 14067. This analysis will optimize our processes and provide customers with accurate emission data, strengthening transparency and trust in our environmental management.

FOURTH STAR OF CARBON FOOTPRINT

We achieved four stars, the highest level of the Carbon Footprint Program Peru.

1.5 Our Emissions in 2024

ORGANIZATIONAL CARBON FOOTPRINT 2024
Following our Decarbonization Roadmap, we achieved an approximate 5% reduction in total emissions in 2024 compared to 2023. This represents 501,463.0 tons of CO_2 for 100% of our operations, classified in the following scopes: Scope 1: 240,668 t CO_2e, Scope 2: 143,561 t CO_2e, Scope 3: 117,234 t CO_2e

Note: Our organizational carbon footprint was verified by the independent third party LRQA.

WE ACHIEVED AROUND A 5% REDUCTION IN TOTAL EMISSIONS IN 2024 COMPARED TO 2023

→ GRAPH 3
INVENTORY OF OUR EMISSIONS 2024

48%
Scope 1
240,668 tCO_2e/year

29%
Scope 2
143,561 tCO_2e/year

23%
Scope 3
117,234 tCO_2e/year

ISO 14064-1:2012 approach and the greenhouse gas protocol
Scope 1: Direct GHG emissions
Scope 2: Indirect GHG emissions associated with electricity
Scope 3: Other indirect GHG emissions

ISO 14064-1: 2018 approach
Category 1: Direct GHG emissions and removals
Category 2: Indirect GHG emissions from imported energy
Category 3: Indirect GHG emissions from transport
Category 4: Indirect GHG emissions from products used by the organization
Category 5: Indirect GHG emissions from the use of the organization's products
Category 6: Indirect GHG emissions from other sources

→ GRAPH 4

HISTORICAL ORGANIZATIONAL CARBON FOOTPRINT 2021-2024 (in thousands of tons of CO_2)

Our **Scope 1** emissions correspond to the following:

- Natural Gas Consumption (22%): Mainly in the electric furnace of the steel mill, reheating furnaces in rolling, rotary kilns for lime production, and thermal treatment in the drawing process.
- Industrial Processes (24%): Including lime production, and consumption of electrodes, pig iron, ferroalloys, and anthracite.

Our **Scope 2** emissions (29%) correspond to the energy consumption from the National Interconnected Electric System (SEIN) in our operations, where the steel mill is the most intensive in electricity use.

Our **Scope 3** emissions correspond to upstream (6%) and downstream (14%) transport in the production process.

Note: The remaining 5% corresponds to other GHG emissions sources from Scopes 1 and 3.

→ METHODOLOGIES AND CO_2 EMISSIONS INDICATORS USED

To standardize emissions indicators and facilitate industry comparisons, we align with the methodologies of Worldsteel, SBTi, and ISO 14064 for reporting both our ratios and absolute carbon footprint values.

worldsteel ASSOCIATION

We use Worldsteel's methodology to report the CO_2 emissions ratio per ton of liquid steel, covering Scopes 1, 2, and 3.

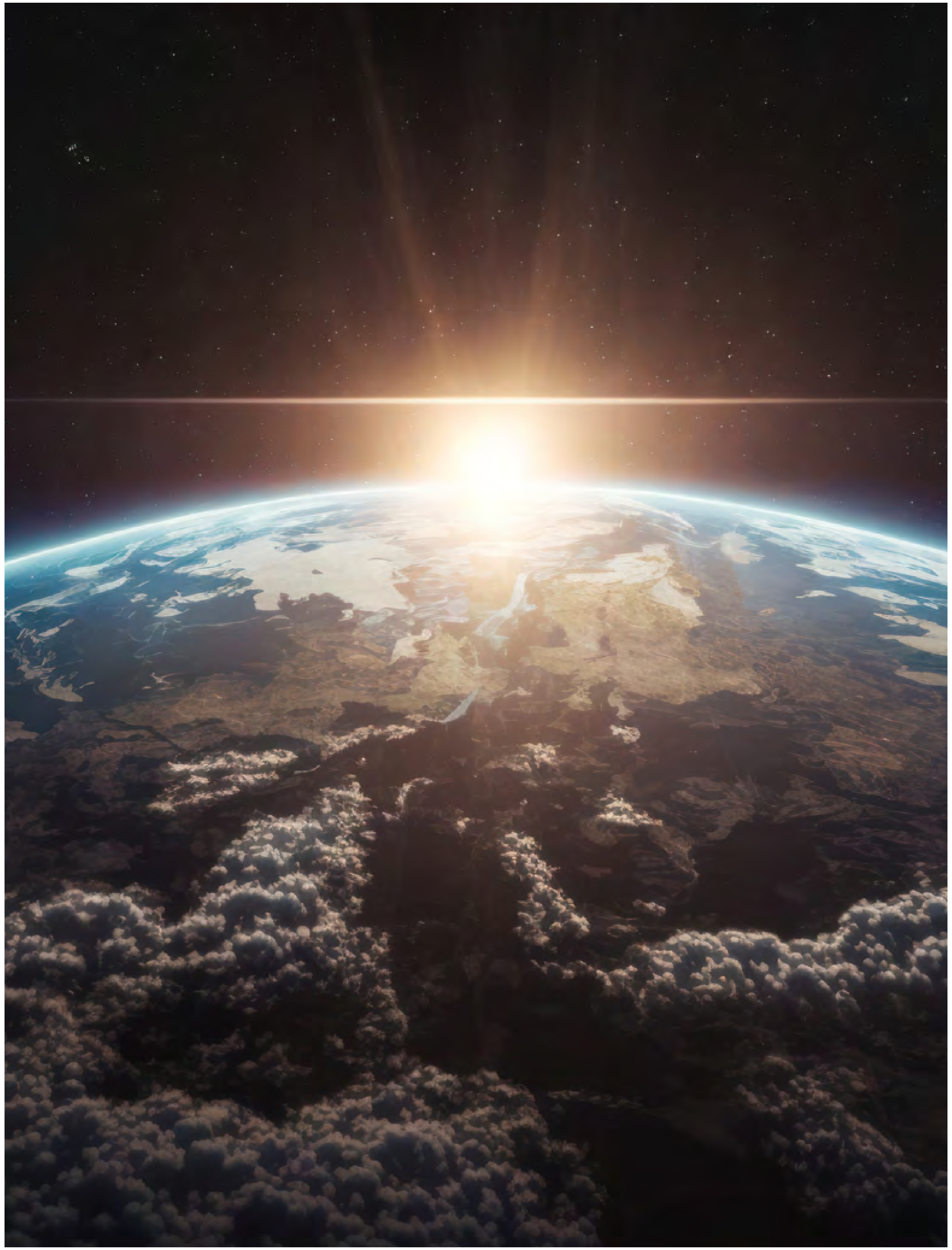
SCIENCE BASED TARGETS

We report our emissions ratio considering Scopes 1 and 2 for the main processes at our Pisco plant, according to the methodology established by the SBTi initiative to set science-based targets

ISO 14064

We employ the ISO 14064-1:2018 methodology to report absolute emissions from our operations, including categories 1 to 6.

For more details on our environmental indicators, see Annex 1.



→ TABLE 1

METHODOLOGIES AND CO_2 EMISSION INDICATORS USED

Metrics	Type	Methodology	Scopes considered	In-Scope Operations	Unit	2022	2023	2024
CO_2 emissions per liquid steel (WS)	*Ratio	Worldsteel	Scope 1 + Scope 2 + Scope 3	All processes at Pisco plant	t CO_2/t liquid steel	0.47	0.45	0.39
CO_2e emissions per hot-rolled steel (SBTi)	*Ratio	SBTi	Scope 1 + Scope 2	Processes at Pisco plant: • Purchased energy production • Lime production • Electric arc furnace • Secondary metallurgy (ladle furnace) • Hot rolling	t CO_2	0.37	0.35	0.34
CO_2e emissions (SBTi)	* Absolute value	SBTi	Scope 1 + Scope 2	Processes at Pisco plant: • Purchased energy production • Lime production • Electric arc furnace • Secondary metallurgy (ladle furnace) • Hot rolling	t CO_2/t hot-rolled steel	534.02	486.81	462.24

*Main ratios used.

Metrics	Type	Methodology	Scopes considered	In-Scope Operations	Unit	2022	2023	2024
Organizational carbon footprint	*Absolute value	ISO 14064-1:2018	Scope 1 + Scope 2 + Scope 3	All	Thousands of tCO_2e	708.12	525.77	501.39
Organizational carbon footprint	Absolute value	ISO 14064-1:2018	Scope 1 + Scope 2	All	Thousands of tCO_2e	418.25	389.48	384.23
Organizational carbon footprint	Absolute value	ISO 14064-1:2018	Scope 3	All	Thousands of tCO_2e	289.87	136.30	117.17

*Main ratios used

CHAPTER 2

NET ZERO STRATEGY

2.1 Net Zero Goals

COMMITMENT TO SBTI TO ESTABLISH SCIENCE-BASED TARGETS

In August 2024, we made our commitment to the SBTi initiative to establish GHG emission reduction levels for the medium term and become the first Peruvian steelmaker to adopt climate science-aligned goals. We have a maximum of two years to define our goal and submit it for SBTi validation.

The SBTi Corporate Net Zero Standard provides guidance on setting emission reduction targets aligned with the 1.5°C pathway. This involves reducing emissions from Scope 1, 2, and 3 to zero or a residual level, and neutralizing any residual emissions and GHGs released after the target year. The standard outlines four key elements for achieving corporate net-zero targets: Short-term science-based target, Long-term science-based target, Mitigation beyond the value chain and Residual emissions neutralization.

In 2023, specific methodologies, tools, and guidelines were developed for the steel sector to establish GHG emission reduction goals in line with the 1.5°C objective.

→ GRAPH 5
OUR PATH WITH SBTi

DETERMINING THE SCOPE TO FORMULATE SCIENCE-BASED GOALS

We are evaluating our baseline and central limit according to SBTi guidelines for the steel sector, considering that since 2021 we have upgraded our technology and aligned our fusion and hot rolling capacities. The focus is on the steel complex as a source of GHG emissions. This is the only site where liquid steel is produced, and hot rolling takes place (see Annex 2).

The processes identified as GHG sources are:

- Imported energy production
- Lime production
- EAF
- Secondary metallurgy (ladle furnace)
- Hot rolling

→ TABLE 2

DISTRIBUTION OF GHG EMISSIONS 2021-2024 (TCO_2)

Scope	2021	2022	2023	2024
Scope 1	231,204	244,195	219,465	**241,431**
Scope 2	124,977	170,856	164,350	**141,348**
Scope 3	220,647	118,970	102,995	**79,459**
Total	576,828	534,021	486,809	**462,237**

Note: Scope 3 GHG emissions do not include upstream and downstream transportation of raw materials or finished products, and are primarily used on Worldsteel's methodology.

Scope	Unit	2021	2022	2023	2024
Scope 1	t CO_2e/t hot-rolled steel	0.20	0.22	0.20	**0.22**
Scope 2	t CO_2e/t hot-rolled steel	0.11	0.15	0.15	**0.13**
Scope 1 + 2	t CO_2e/t hot-rolled steel	0.31	0.37	0.35	**0.34**
Scope 3	t CO_2e/t hot-rolled steel	0.19	0.10	0.09	**0.07**
Total	t CO_2e/t hot-rolled steel	0.50	0.47	0.44	**0.42**
Hot-rolled steel	Millions of tons	1.15	1.13	1.10	**1.11**
Share of recycled steel	%	90.39	96.55	97.89	**99.22**
Share of Scope 3	%	38.25	22.28	21.16	**17.19**

ESTABLISHING EMISSIONS REDUCTION GOALS

In 2022, we preliminarily set our carbon footprint reduction goals for 2030 and 2050, focusing on Scopes 1 and 2. For the short term (2030), the goals are:0.23 t CO2e Generate 0.23 t CO2e (Scope 1 + Scope 2) per ton of finished product and generate 0.26 t CO2e (Scope 1 + Scope 2) per ton of liquid steel. For the long term (2050), the goals are: Generate 0.11 t CO2e (Scope 1 + Scope 2) per ton of finished producto and generate 0.11 t CO2e (Scope 1 + Scope 2) per ton of liquid steel.

These goals may change based on alignment with the SBTi standard for the steel industry.

Thanks to EAF technology and increased use of electricity and natural gas in our processes, we have one of the lowest CO_2 intensities worldwide. We remain committed to reducing emissions in line with our Decarbonization Roadmap by implementing projects in three action areas: **(1) Energy Efficiency, (2) Low-Carbon Processes and (3) Electromobility.**

These initiatives will allow us to set SMART goals and tracking indicators aligned with the organization's strategic planning cycle.

→ EMISSION MITIGATION STRATEGIES

ENERGY EFFICIENCY

Projects aimed at increasing energy efficiency under an energy management system.

LOW CARBON PROCESSES

Projects focused on reducing direct CO_2 emissions in our processes, including studies on the application of green hydrogen or replacing gas-fired furnaces with induction furnaces.

ELECTROMOBILITY

Electrification of the transportation and handling processes.

TARGETS FOR REDUCING OUR CARBON FOOTPRINT

	2024	2030	2050
IN TON CO_2E/T OF FINISHED PRODUCT	**0.34 t CO_2e**	**0.23 t CO_2e**	**0.11 t CO_2e**
IN TON CO_2E/T OF LIQUID STEEL	**0.33 t CO_2e**	**0.26 t CO_2e**	**0.11 t CO_2e**
IN ABSOLUTE TON CO_2E	**383 thousand t CO_2e**	**361 thousand t CO_2e***	**182 thousand t CO_2e***

Note: Production volume is estimated at 1,569,000 t of steel in 2030 and 1,655,000 t of steel in 2050.

2.2 Our Decarbonization Roadmap

In recent years, we have modernized and strengthened our production with EAF (Electric Arc Furnace) through strategic investments focused on eco-efficiency and GHG emission reduction. During this period, we have allocated over US$500 million to projects with a strong sustainability focus, including the following:

- **New Still Mill #2:** Increases our production capacity by 50%, while simultaneously reducing energy and electrode consumption thanks to more efficient technology.
- **New Lime Plant:** Reduces natural gas consumption by 50%.
- **Scrap Cleaning Machine:** Separates non-ferrous material before entering the furnace, thereby reducing emissions from the steelmaking furnace.
- **Fleet Migration:** Gradually replacing our diesel trucks with units that operate with compressed natural gas (CNG).
- **Electrification of Cranes:** Eight of the eighteen scrap handling cranes are electric, reducing our emissions.

Our commitment to efficiency and innovation has enabled us to achieve one of the most competitive CO_2 emissions indices per ton of steel globally. According to the CO_2e emissions indicator for hot-rolled steel (HRC) defined by SBTi (which includes Scope 1 and 2), in 2024 we recorded a value of 0.34 t CO_2/t, significantly below the average of blast furnace production and also lower than other companies operating with EAF in the region.

Despite these advances, we continue to drive new initiatives and reaffirm our commitment to even more ambitious goals by 2030.

Achievements and next steps

2019-2022

- Preliminary establishment of carbon footprint reduction goals.
- Launch of New Still Mill #2.

2023

- First Scrap Cleaning Machine.
- Start of fleet migration from diesel to CNG units.

2024

- Start of operations of the new lime plant.
- Commitment to the SBTi initiative.
- Carbon footprint calculation by product.
- Development of hot charging in rolling mill 2.

2025

- Launch of our Decarbonization Roadmap.
- ISO 5001 energy certification.
- Second Scrap Cleaning Machine.

2026-2027

- Registration of SBTi targets.
- Steel mill upgrade.
- Gradual acquisition of renewable energy certificates.

2028-2030

- Evaluation of green hydrogen or induction furnaces to replace natural gas.
- Gradual acquisition of renewable energy certificates.

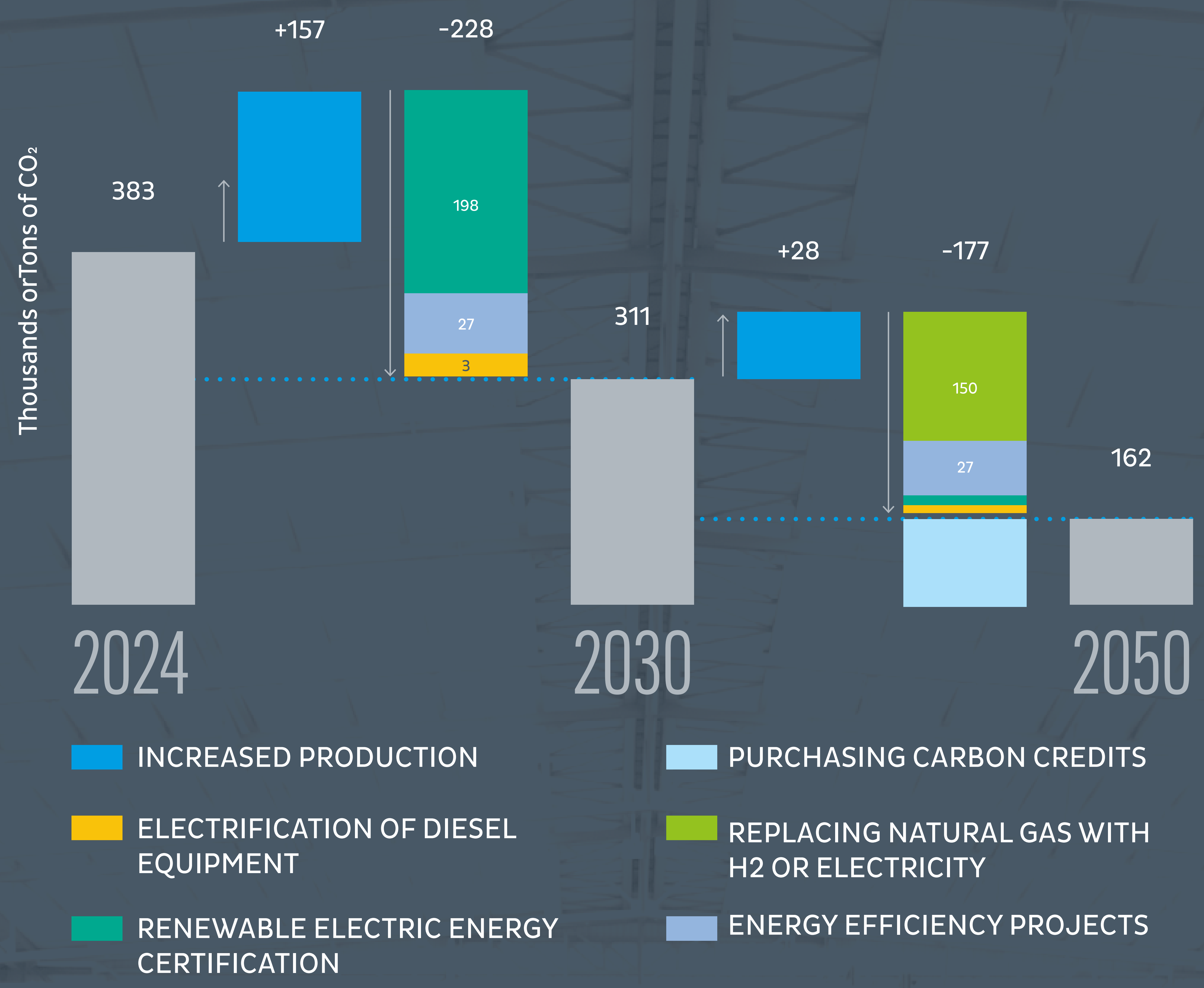
Consistent with our commitment to science-based targets, our decarbonization pathway toward 2030 and 2050 includes a range of strategies to reduce greenhouse gas (GHG) emissions, including the following:

2030 → 2050

- Implement **energy efficiency, electrification, and process optimization projects to reduce GHG emissions**, such as the second scrap cleaning machine, electrification of transport and handling in operational areas, among others.
- Maintain a **high percentage of recycled scrap** as a priority input in the metallic input for steel production.
- **Gradually certify the electricity** used in our processes as coming from renewable sources.
- Evaluate alternatives to the use of natural gas in the reheating furnaces of our rolling mills, including the use of green hydrogen or replacing natural gas furnaces with electric induction furnaces.
- Finally, offset remaining GHG emissions by **purchasing carbon credits** to achieve carbon neutrality by 2050.

→ GRAPH 6

NET ZERO ROADMAP TO 2050 (in thousands of tons of CO_2)



2.3 Main Initiatives and Strategies to Mitigate Our GHG Emissions

Scope 1

1. MODERNIZATION OF EQUIPMENT

Progressive replacement of diesel-powered equipment with electric equipment. **By 2024, eight of the eighteen scrap handling cranes are electric.** Each crane implemented reduces approximately 150 t CO_2e annually compared to combustion cranes, significantly contributing to our emission reduction goals.

In the coming years, we will continue transitioning to electric equipment, replacing the remaining diesel cranes with electric cranes, replacing combustion forklifts with electric forklifts, and reinforcing our commitment to energy efficiency and carbon footprint reduction.

2. SCRAP CLEANING MACHINE

We introduced this technology to reduce electricity consumption during the melting of liquid steel. The machine cleans the scrap entering the electric furnace, decreasing energy consumption and contributing to higher process efficiency. Its implementation has the potential to reduce GHG emissions by 5% for processing one ton of liquid steel. We will continue to expand the use of this technology, and we plan to implement a second cleaning machine by 2026.

3. RECYCLED STEEL AS A PRIMARY RAW MATERIAL

Our corporate strategy prioritizes ensuring a long-term supply of recycled steel (ferrous scrap). We have a local and international collection plan that seeks to guarantee the supply of this material, ensuring a high percentage of recycled steel as the metallic input for our steel production. This not only reduces the need for extracting new raw materials but also decreases GHG emissions and consumes less energy.

Currently, we recycle around 1.36 million tons of ferrous scrap and have 10 collection yards (PAs) in Peru, Bolivia, Chile, and the United States. Additionally, ferrous scrap represents 99% of our metallic input for steel production.

4. INDUSTRIAL BY-PRODUCTS RECOVERY PROJECT

We recover scrap industrialization waste through magnetic and gravimetric separation systems, which allows us to recover metals such as aluminum, copper, bronze, and zinc to generate industrial byproducts like eco-gravel, laminillo, refractories, zinc oxide, among others. This reduces the extraction of virgin raw materials, whose processing is CO_2 intensive, and reinforces our commitment to a circular economy. Each year, we process 36,000 tons of industrial waste, reintroducing valuable materials into recycling. In 2024, our Non-Ferrous Metal Recovery Project was recognized in the ESG awards by Semana Económica in the Environmental category.

5. REPLACEMENT OF NATURAL GAS IN REHEATING FURNACES

We are studying cleaner alternatives to replace natural gas in the reheating furnaces of our rolling mills. The main options include:

1. Use of Green Hydrogen: This option would replace natural gas as an energy source, significantly contributing to emission reduction. Currently, green hydrogen supply is limited, and its transportation is costly. However, Peru has a high potential for its production, thanks to abundant natural resources and the relatively low cost of renewable energy generation. The Horizonte de Verano project in Arequipa is the most advanced project in this area in the country. If this potential continues to be developed, green hydrogen could become a key element in our Decarbonization Roadmap.
2. Induction Furnaces: Another option is to replace gas-fired furnaces with induction furnaces that use electricity for reheating billets.

Scope 2

1. ENERGY MANAGEMENT SYSTEM BASED ON ISO 50001

In 2024, we began implementing the energy management system based on the ISO 50001 standard, which covers the steelmaking and rolling processes within our steel complex. This system, which will allow us to continue strengthening our energy management capacity, optimizes the consumption of electricity, natural gas, and diesel, with the goal of improving the efficiency and sustainability of our operations.

2. PROGRESSIVE CERTIFICATION OF RENEWABLE ELECTRICITY USED

Our Scope 2 emissions come from the energy consumption of the National Interconnected Electric System (SEIN), which supplies our operations with electricity generated mainly by the Mantaro Hydroelectric Power Plant, thus avoiding the use of fossil fuels. As part of our decarbonization route, we will progressively acquire renewable energy certificates that guarantee the sustainable origin of the electricity used in our operations.

3. STEEL MILL UPGRADE

This multi-year project aims to progressively increase the production capacity of billet in our steel mill, and incorporate more efficient technology that optimizes energy use and reduces the consumption of refractories. This modernization will not only increase productivity but also generate efficiencies in energy consumption and reduce GHG emissions. An example of this project is the replacement of liquid steel ladles, which will improve thermal efficiency and reduce the use of refractories, contributing to a more sustainable and competitive operation.

Scope 3

1. FLEET MIGRATION FOR TRANSPORTATION

We are progressively replacing diesel-powered trucks with those using natural gas. Currently, we have a fleet of 52 natural gas trucks, whose operation generates CO_2 emissions five times lower compared to diesel trucks.

2.4 Integration with Financial Planning

Our decarbonization route drives the integration of financial planning with environmental goals, directing investments toward emission reductions and climate risk management.

We recognize that the transition to a low-carbon economy presents challenges but also opens up valuable opportunities. For this reason, we incorporate this approach as a key pillar in value generation, aligning financial planning and capital allocation with our decarbonization efforts, the development of lower-carbon solutions, and the adoption of sustainable technologies.

Thus, our investment plan prioritizes implementing sustainable projects, focusing on reducing our carbon footprint, optimizing the use of natural resources, and valuing the industrial by-products of our processes.

INTERNAL CARBON PRICE CAASA

We update our internal carbon price annually, which allows us to consider the potential avoided cost of emission reductions and the benefits of eco-efficiency.

The internal carbon price approach involves assigning a hypothetical cost to carbon emissions to understand how GHG emission prices impact the organization's business case. This includes mapping financial risks related to climate change and estimating the potential impact of a carbon price on the prices of products in development.

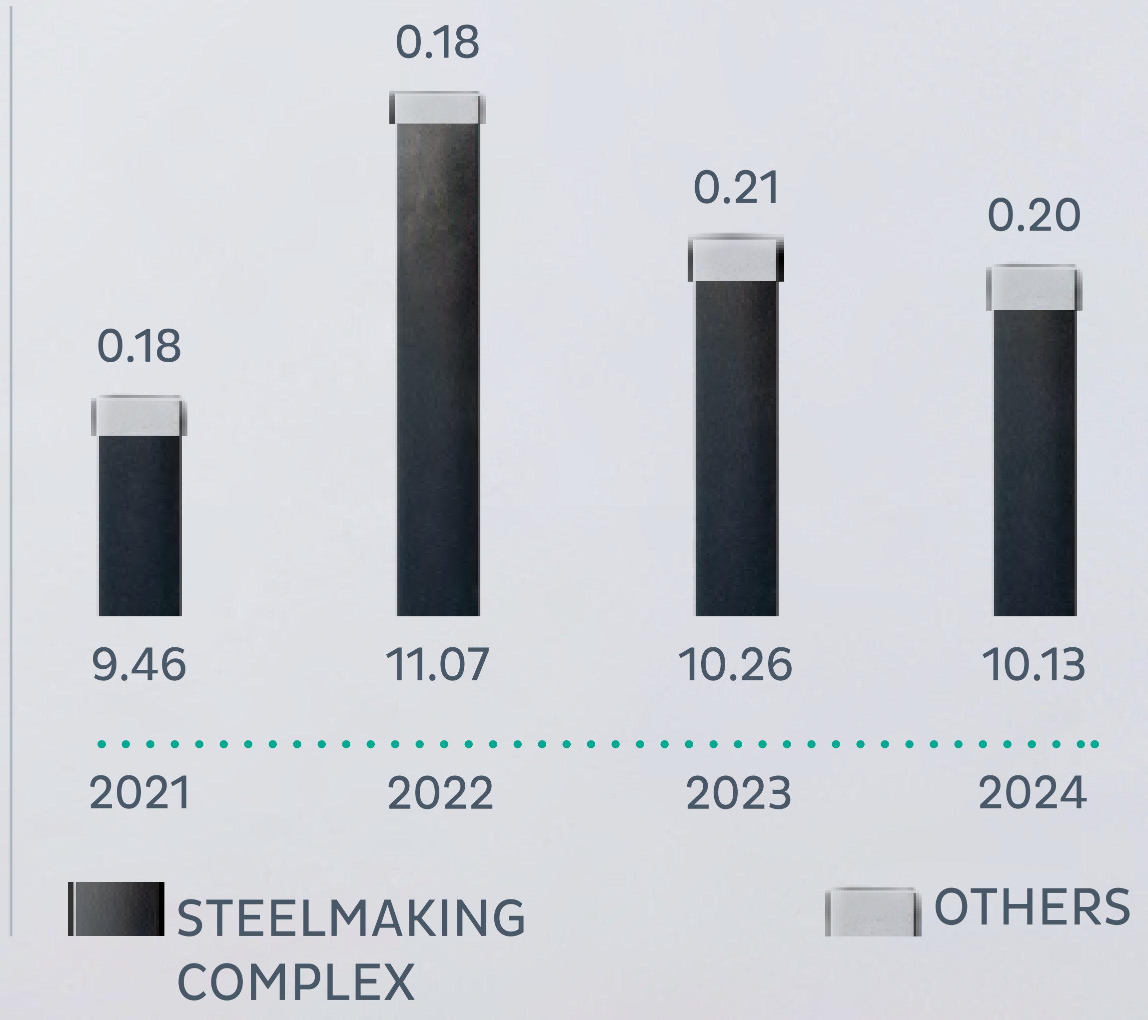
Implementing the internal carbon price has several benefits, such as:

- Changing internal behavior to raise awareness about climate change and influence decisions
- Promoting energy efficiency through projects that use renewable energy and reduce GHG emissions
- Identifying and capitalizing on low-carbon opportunities to improve competitive positioning in a low-carbon economy
- Promoting low-carbon investments through technologies that reduce the carbon footprint

Currently, CAASA applies a shadow carbon price by assigning a hypothetical cost for each ton of CO_2e emitted. This price is uniform across the company, with no distinction by geography or subsidiary, and is based on the 2019 proposal from the Ministry of Energy and Mines (Minam) (US$ 7.17* per ton of CO_2e). Although there is an "internal carbon tariff" option, which involves assigning an actual cost per ton emitted, we do not apply it due to the lack of carbon taxes in Peru.

→ GRAPH 7

EVOLUTION OF THE INTERNAL CARBON PRICE (MILLIONS OF SOLES)



* US$ 7.17 = PEN 26.89

→ TABLE 3
DISTRIBUTION OF INTERNAL CARBON PRICE FOR 2024

Locations	Internal Carbon Price 2024 (in soles)			Share
	Scope 1	Scope 2	Total	%
Administrative Office (Magdalena)	2,154.43	851.34	3,005.76	0.03
Steelmaking Complex	6,331,804.01	3,800,845.30	10,132,649.31	98.07
DC - Callao	2.64	4,370.70	4,373.34	0.04
DC - Arequipa	0.54	2,281.35	2,281.89	0.02
DC - Trujillo	0.27	119.93	120.20	0.00
SP - Oquendo	0.27	3,715.66	3,715.93	0.04
SP - Cajamarquilla	1.08	2,725.57	2,726.65	0.03
SP - Trujillo	0.81	1,303.09	1,303.90	0.01
Steel Center – Lima	0.81	682.74	683.54	0.01
Pipe plant -Cajamarquilla	999.77	4,967.39	5,967.16	0.06
Clove plant - Callao	136,506.28	20,434.79	156,941.06	1.52
DC - Piura	0.00	345.81	345.81	0.00
DC - Lurín	80.65	17,712.71	17,793.36	0.17
Total	6,471,551.54	3,860,356.37	10,331,907.90	100.00

*(DC): Distribution Center, (SP): Storage Plant

2.5 Challenges in Implementing Our Strategy

Aceros Arequipa has made significant progress in decarbonizing its operations and currently has one of the lowest carbon footprints in the industry. However, our goal is to achieve carbon neutrality. The transition toward this goal presents challenges that require joint efforts with various stakeholders. Therefore, we will continue to drive initiatives to reduce our carbon footprint and advance our decarbonization route. Nevertheless, we are aware of external factors that could influence the process.

The World Economic Forum's Net-Zero Tracker, which proposes a model for assessing the level of preparedness of an industry in its transition to net zero, considers five key dimensions:

Technology
Are the necessary technologies to achieve net-zero emissions commercially available?

Infrastructure
Is the necessary infrastructure in place to enable the use of low-emission technologies?

Demand
Is the market willing to support low-emission products, assuming the additional associated costs?

Capital
Are returns sufficient to incentivize investments in low-emission assets?

Policy
Are there supportive policies to facilitate the growth of low-emission industries?

If we apply the model to our company’s context (operating in Peru, Bolivia, Colombia, Ecuador, and Chile), we see that there are aspects that still need development.

TECHNOLOGY

For steel mills operating with EAF technology, the decarbonization strategy focuses on replacing fossil fuels with green hydrogen or renewable electricity. While several initiatives have been promoted to encourage the development of green hydrogen, the current technology still faces logistical challenges related to high production and transportation costs.

INFRASTRUCTURE

Latin America has high potential for developing renewable energy due to its abundance of natural resources, which could translate into a competitive advantage in producing green hydrogen and steel. In Peru, where our operations are concentrated, there is still no green hydrogen production; the Horizonte de Verano project in Arequipa is the most advanced in this area. On the other hand, the transition to electric vehicles faces major challenges, such as limited public charging infrastructure, particularly in Peru.

DEMAND

The local market is not yet willing to pay a significant premium for green steel, but there are signs of change. In Chile and Peru, sectors like mining are starting to demand materials with a lower carbon footprint, and regulations such as the EU's Carbon Border Adjustment Mechanism (CBAM) could push for quicker adoption of sustainability standards in the region. However, price remains the main deciding factor, and demand for low-carbon steel is still at an early stage of development.

CAPITAL

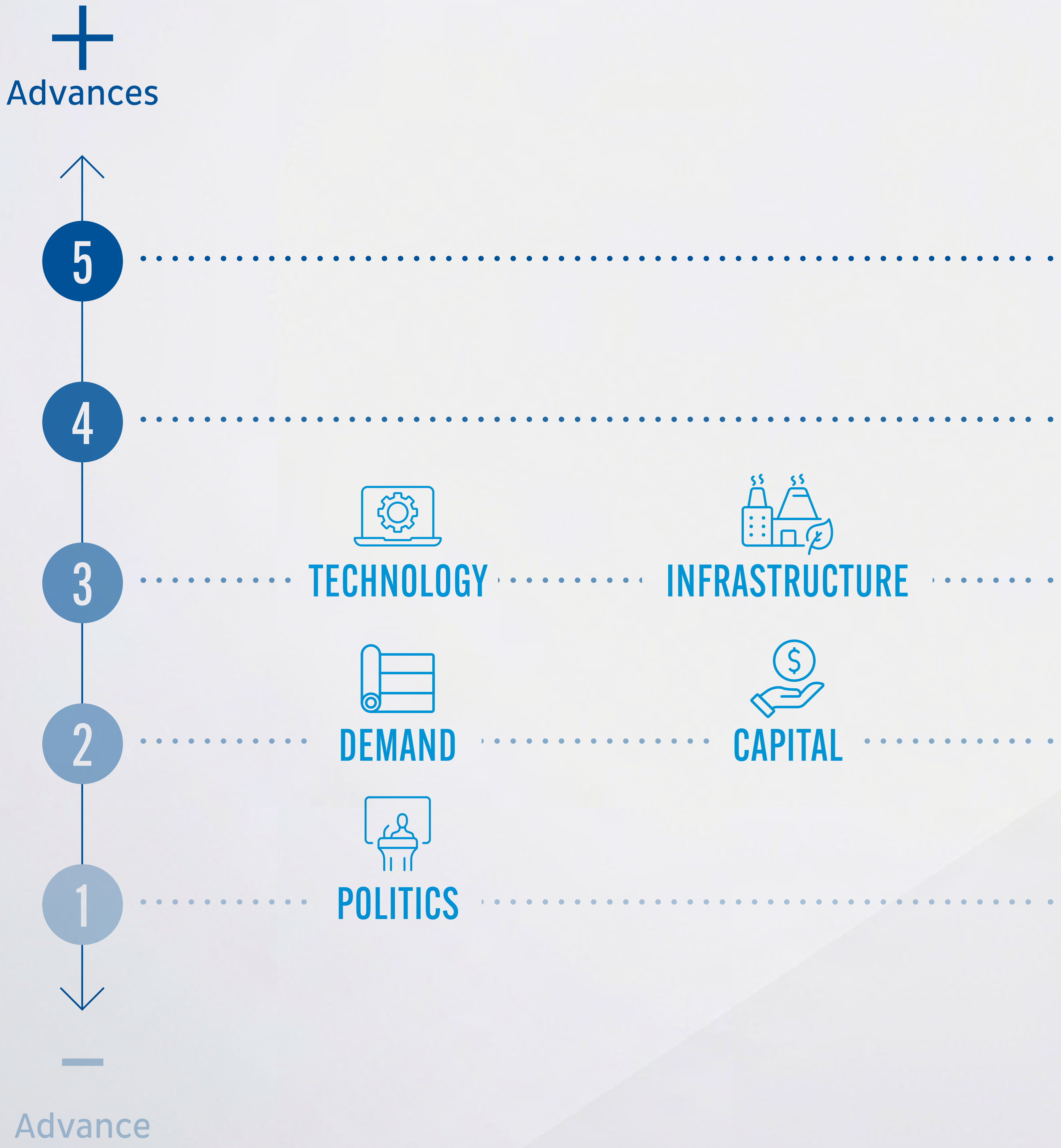
Investments in decarbonization projects are mainly driven by their contribution to energy efficiency and the optimized use of natural resources, reducing operational costs. However, their return does not yet translate into higher market premiums or the mitigation of risks associated with a carbon price. Additionally, the green finance market in the region is still underdeveloped, limiting tangible benefits in debt structuring for sustainable projects.

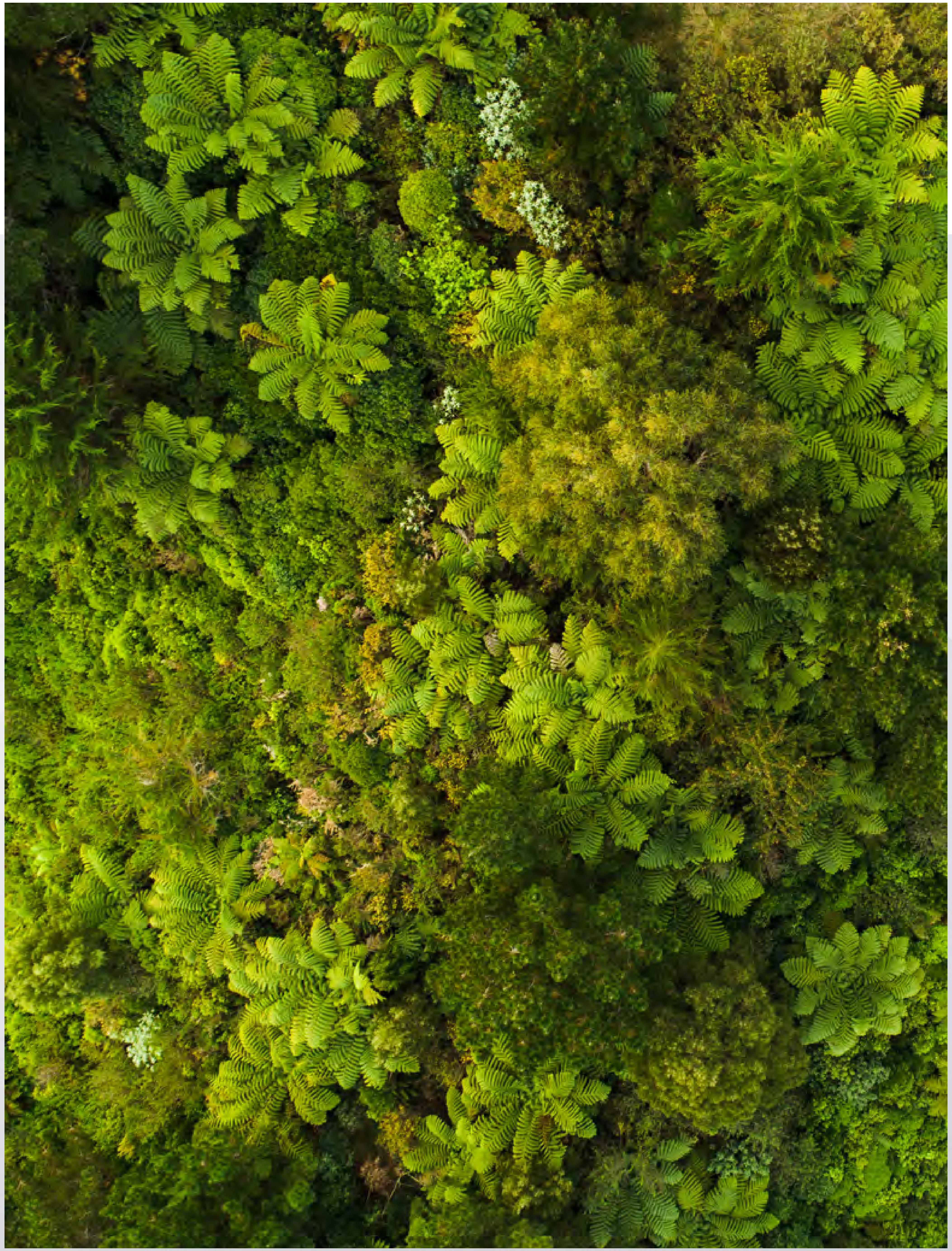
POLICY

While some countries have developed decarbonization roadmaps, there are no specific regulations for the steel industry. Chile and Colombia have made more progress in environmental regulations, although without direct incentives for green steel. In contrast, Peru has general policies but no concrete measures to foster a transition to a more sustainable steel industry. Additionally, the implementation of these measures would lead to higher costs for the final consumer, directly impacting family economies, reducing political commitment to implement them.

→ GRAPH 8

CONSOLIDATION LEVELS OF ENABLERS FOR THE NET-ZERO TRANSFORMATION





CHAPTER 3

RISK AND OPPORTUNITY MANAGEMENT

3.1 Analysis Methodologies

According to our Climate Management Process at CAASA (see annex 4), we have identified and analyzed the risks and opportunities arising from climate change thorough assessment of trends, the current and future situation of the steel industry, as well as CAASA's value chain.

According to the Task Force on Climate-related Financial Disclosures (TCFD), climate risks are divided into two main categories: physical risks and transition risks. Physical risks include both direct and indirect impacts of climate change on an organization's physical assets, operations, and supply chains. These impacts include extreme weather events such as floods, storms, and droughts. On the other hand, transition risks refer to the changes in policies, technologies, and markets that result from the transition to a low-carbon economy. These risks may involve regulatory modifications, stricter climate policies, changes in the demand for products and services, and shifts in consumer preferences and investment trends.

The TCFD emphasizes the importance of understanding and managing both physical and transition risks to ensure long-term resilience and sustainability of organizations in a world affected by climate change.

Our methodology starts with the classification of climate-related risks and follows the guidelines established by the TCFD. In the next step, we identify possible future scenarios: for transition risks, we consider scenarios related to the fulfillment of Peru's Nationally Determined Contributions (NDCs), and for physical risks, we use the Representative Concentration Pathways (RCPs), defined by the IEA and adapted to the local context by the National Meteorology and Hydrology Service (Senamhi). For this edition, we have also considered the scenarios described in the methodology of the Network for Greening the Financial System (NGFS), which jointly assesses transition and physical risks.

Finally, we use CAASA's Integrated Risk and Opportunity Management (GIRO) methodology to assess risks across different scenarios.

→ TABLE 4

APPLICATION OF METHODOLOGIES

1. Risk identification and classification		Physical risks	Transition risks
TCFD	The TCFD is an international initiative that provides recommendations for companies to disclose climate-related financial information. This enables the assessment and management of risks and opportunities associated with climate change in their operations and strategies. Our methodology focuses on classifying climate-related risks and opportunities based on the TCFD framework, which categorizes them into physical and transition risks.	Natural disasters or environmental events caused by climate change.	Changes in policy, legislation, technology, and markets aimed at mitigating climate change.

2. Scenario analysis		Physical risks	Transition risks
Senamhi	Senamhi has defined Representative Concentration Pathways (RCPs) as geographical areas in Peru where climatic and geographical conditions are conducive to the development of extreme weather events.	To analyze physical risk scenarios, we applied the RCPs identified by Senamhi.	
NDCs	NDCs (Nationally Determined Contributions) are commitments made by each country to reduce greenhouse gas (GHG) emissions and adapt to the impacts of climate change in alignment with the Paris Agreement. Peru has defined 91 adaptation measures and 62 mitigation.		To analyze transition risk scenarios, we used the likelihood of Peru meeting its NDCs and the scenarios.
iea International Energy Agency	The IEA (International Energy Agency) has developed climate change scenarios based on future global energy demand, countries' carbon pricing commitments, and new technologies in heavy industries (cement, steel, and chemicals).		
NGFS	The NGFS (Network for Greening the Financial System), a network of central banks, financial supervisors, and global authorities, aims to promote the integration of environmental sustainability into financial stability and policy frameworks, managing climate-related risks.	To assess both physical and transition risks related to climate change, we used the seven scenarios proposed by the NGFS: Delayed Transition, Net Zero 2050, Below 2 °C, Low Demand, Fragmented World, NDCs, and Current Policies.	

3. Assessment and response plans		Physical risks	Transition risks
GIRO	The GIRO methodology, developed by CAASA, defines corporate guidelines for evaluating risks according to risk appetite and tolerance, and for formulating response plans to address those risks.	We used the GIRO methodology to evaluate risks under the different scenarios and to define action plans to address them.	

3.2 Identification of Risks and Opportunities

We identify and analyze the risks and opportunities associated with climate change by examining trends and related scenarios that impact our processes and capabilities, both financially and operationally. Furthermore, we aim to create strategic opportunities for our company, for which we employ the external methodological frameworks mentioned in the previous chapter, as well as our GIRO methodology.

The GIRO methodology establishes corporate guidelines for identifying, assessing, controlling, and monitoring risks, along with the criteria for risk appetite, tolerance, and probability and impact levels. It also contains the guidelines for prioritizing opportunities. Currently, we have identified seven risks in total (three transition risks and four physical risks), which are directly linked to our key strategic and emerging risks. Additionally, we have identified five opportunities associated with global trends and the fulfillment of the NDCs in Peru.

To analyze climate risks, we adopt the most adverse scenarios from the selected methodologies, in line with TCFD recommendations. This approach allows us to assess potential impacts under extreme conditions and define better strategies that strengthen our resilience against transition and physical risks.

TRANSITION RISKS

TR1: Global trend in the steel industry toward the use of cleaner production technologies, such as Electric Arc Furnaces (EAFs), would increase competition for recycled steel and its associated costs.

TR2: Increase in operational costs due to the implementation of carbon pricing in the country or higher fuel taxes.

TR3: Increase in imports of high-GHG-emission steel products into countries in the region because of the implementation of climate change measures that discourage their commercialization in developed countries.

PHYSICAL RISKS

PR1: Increased costs due to the use of alternative resources (forced air and desalinated water) for cooling in the production process, resulting from the low availability of groundwater in the area where the steelmaking complex is located.

PR2: Cost overruns due to power outages at the steelmaking complex, caused by damage to the transmission line resulting from the overflow of the Pisco River.

PR3: Loss of sales due to the interruption of access routes and highways caused by landslides and flooding.

PR4: Increased costs due to damage to infrastructure, equipment and products caused by increased rainfall in the areas where the different locations are located.

OPORTUNIDADES

OP1: Capitalize on our low carbon footprint to access international green financing.

OP2: Entry into new markets through competitive advantage based on lower-emission products.

OP3: Participate in government projects focused on climate change mitigation and adaptation by providing services or products.

OP4: Co-processing at the steel complex.

OP5: Valorize steel slag for use in construction buildings as an alternative to aggregate material.

UPSTREAM

DIRECT OPERATIONS

DOWNSTREAM

3.3 Transition Risk Analysis

SCENARIOS

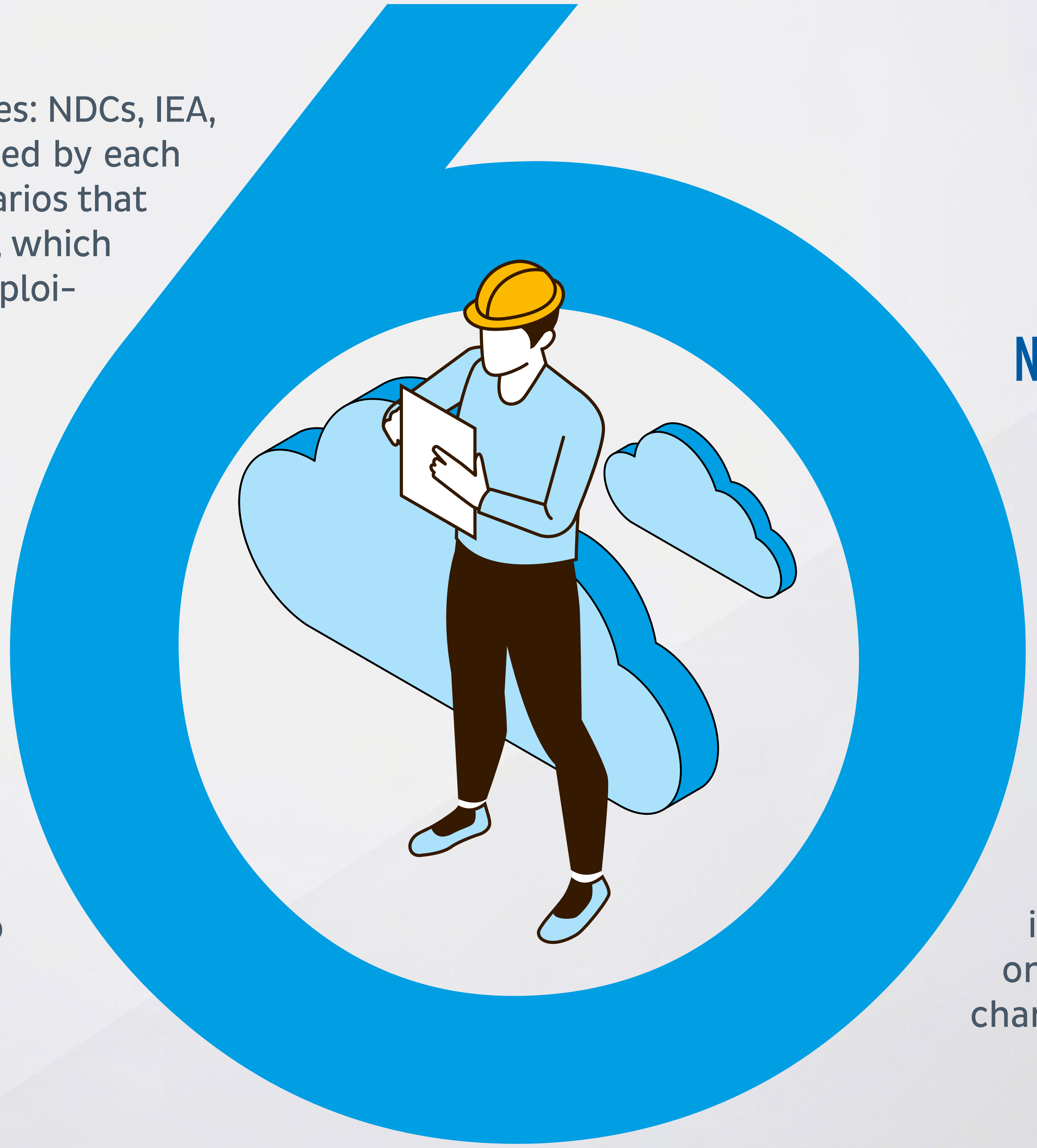
To evaluate transition risks, we consider three key methodologies: NDCs, IEA, and NGFS, and analyze our risks under all the scenarios proposed by each of them (see annexes 5 and 6). However, we prioritize four scenarios that allow us to define more effective strategies and response plans, which strengthens our preparedness against risks and facilitates the exploitation of associated opportunities.

NDCS SCENARIO (TRANSFORMATION)

Description: This scenario reflects the full (100%) compliance with the NDCs. Thanks to the implementation of ambitious climate policies and rigorous mitigation measures, the world has managed to limit global warming to 1.5°C above pre-industrial levels, a target achievable by 2030.

IEA SCENARIO (NZE)

Description: NZE (Net Zero Emissions by 2050): This outlines a path toward carbon neutrality by 2050, prioritizing electrification and renewables, which guarantees universal access to electricity and clean cooking by 2030



NGFS SCENARIO (LOW DEMAND)

Description: This scenario projects that behavioral changes, such as reducing energy consumption, combined with carbon pricing policies (indirect) and technological advances, would alleviate the economic pressure to achieve net-zero CO_2 emissions by 2050. In this context, regions such as the United States, EU, UK, Canada, Australia, and Japan would achieve neutrality in all GHGs.

NGFS SCENARIO (FRAGMENTED WORLD)

Description: The NGFS's fragmented world scenario presents uneven and delayed climate action across countries, resulting in high physical and transition risks. Those with net-zero goals only achieve 80% of their targets, while the rest maintain unchanged policies.

TRANSITION RISK EVALUATION

To analyze the severity of the risks, we use the GIRO methodology. On the other hand, we select the NDCs that may be related to Aceros Arequipa's activities. We also consider the scenarios developed by the IEA, which focus on global energy demand, carbon pricing commitments from countries, and new technologies in heavy industries such as cement, steel, and chemicals. We also take into account the NGFS scenarios, which mainly consider political reaction variables, technological change, carbon dioxide removal, and regional policy variations. We evaluate the severity of the risks under all the scenarios by methodology (see annex 7), and prioritize four of them to define response strategies.

After analyzing transition risks in relation to various NDC compliance scenarios, we have decided to base our response strategy on the Transformation Scenario (Tr.). This scenario offers greater opportunities to design effective strategies that contribute to the fulfillment of the NDCs through our activities.

Furthermore, when evaluating transition risks based on the scenarios developed by the IEA, we have selected the Net Zero Emissions by 2050 Scenario. This scenario sets the path for the global energy sector to achieve net-zero CO_2 emissions by 2050.

Finally, to assess based on NGFS scenarios, we have selected two scenarios: Low Demand (< 2°C) and Fragmented World (> 2°C).

→ TRANSITION RISKS

TR1

Global trend in the steel industry toward the use of cleaner production technologies, such as Electric Arc Furnaces (EAFs), would increase competition for recycled steel and its associated costs.

TR2

Increase in operational costs due to the implementation of carbon pricing in the country or higher fuel taxes.

TR3

Increase in imports of high-GHG-emission steel products into countries in the region because of the implementation of climate change measures that discourage their commercialization in developed countries.

Detailed Description of Transition Risks

Name	**TR1:** Global trend in the steel industry toward the use of cleaner production technologies, such as Electric Arc Furnaces (EAFs), would increase competition for recycled steel and its associated costs.			
Description	According to the 2025 Net Zero Tracker by the WEF, the use of recycled steel is key to decarbonizing steel production, as Electric Arc Furnaces (EAFs) — which use recycled steel as their main raw material — emit less than one-third of the CO_2 compared to the traditional process. The IEA projects that the share of recycled steel in global production will increase from 32% to 48% by 2050, and BCG warns of a 16 Mt supply gap by 2030. This could increase competition, create trade restrictions, and raise costs. Since more than 95% of our metallic input comes from recycled steel, this risk could significantly impact our costs and supply.			
Criticality	High	High	High	High
Methodology and Scenario	NDC Scenario: Transformation (Tr.) – 100% compliance with the NDCs	IEA NZE Scenario: Net Zero Emissions by 2050	NGFS Scenario: Low Demand	NGFS Scenario: Fragmented World
Related NDC	*T1	-	-	-
Type of Risk	Technology			
Financial Impact	Each 1% increase in recycled steel prices generates an average cost increase of USD 4.6 million per year.			
Response Strategies	**Current Strategies** • Ongoing environmental monitoring • Strong relationships with local scrap steel suppliers to ensure national supply at optimal cost • Scheduling production and supplier development to support domestic recycling activity **Future Strategies** • Develop new sources of raw materials, both locally and internationally			

*Note: They are sources for transition risks are stress-test scenarios, not official NDC commitments. Legend: L - Legislation, Me - Market, T - Technology
NDC Classification Legend: E - Energy, M - Industrial Processes
Transition Risk Types: PL - Political and Legal, Te - Technology, Me - Market, Re - Reputation

Detailed Description of Transition Risks

Name	**TR2:** Increase in operational costs due to the implementation of carbon pricing in the country or higher fuel taxes.			
Description	The 2025 Global Risks Report by the WEF highlights extreme weather events as a critical and growing risk. In this context, the lack of concrete advances in policies to discourage carbon emissions increases the risk of a sudden implementation of carbon taxes or higher tax rates, which could raise our costs and reduce competitiveness.			
Criticality	High	High	High	High
Methodology and Scenario	NDC Scenario: Transformation (Tr.) – 100% compliance with the NDCs	IEA NZE Scenario: Net Zero Emissions by 2050	NGFS Scenario: Low Demand	NGFS Scenario: Fragmented World
Related NDC	• Carbon tax: *L1 / E1 • Fuel tax: E9 / E1	-	-	-
Type of Risk	Political-Legal			
Financial Impact	• Carbon pricing impact: cost increase of S/ 5,973,989.35 • Higher fuel tax impact: cost increase of S/ 1,865,236 • Total Impact: S/ 9,839,225 (See Annex 8)			

Response Strategies	**Current Strategies** • 85% of our electricity comes from renewable sources • From September 2025, the Steelmaking Complex will use 100% renewable energy • We use natural gas as our main energy source, with a lower emission factor • Since 2020, we have integrated 8 electric cranes, reducing 150 tCO_2e/year per unit • We audit high-consumption equipment to avoid overuse and downtime • We perform regular electrical maintenance to prevent energy leaks • We monitor energy consumption with meters across our processes • Since 2021, the new steel plant reduced electricity consumption from 415 to 375 kWh/t • In 2024, we commissioned a scrap cleaning machine, a vertical lime kiln, and three annealing furnaces, optimizing energy and gas use • In 2024, we modernized the nail production line, reducing its electricity consumption per ton to one-sixth • In 2024, Transportes Barcino acquired 52 natural gas trucks for product and material transport • We supported the calculation and verification of their 2023 GHG inventory, which totaled 9,057 tCO_2e, with follow-up for future reduction goals • We monitor fuel efficiency per load transported, avoiding empty hauls • We optimize the supply of recycled steel through processing and compacting, improving the use of transport units and fuel
	Future Strategies • Analyze the electricity contract to ensure supply from a renewable energy source with renewable energy certification. • Implement an energy management system and certify it under ISO 50001 in 2025. • Actively participate in the working groups of the “Transition to a Low-Carbon Economy in Peru” project led by the Ministry of Economy and Finance (MEF). • Acquire a second scrap cleaning machine. • Acquire two additional annealing furnaces. • Support strategic suppliers in calculating their carbon footprint. • Promote the formalization of the transportation sector and the adoption of environmentally friendly practices. • Evaluate machinery and transportation contracts to shift toward cleaner or electric fuels.

*These are sources used for transition risks in stress scenarios, not official NDC commitments. Legend: L – Legislation, Me – Market, T – Technology.
Note 1: NDC classification themes: E – Energy, M – Industrial Processes.
Note 2: Transition risk types: PL – Political & Legal, Te – Technology, Me – Market, Re – Reputation.
Note 3: Risk-related variable legend: Imp. – Impact, Prob. – Probability, Consid. – Considerable, Mod. – Moderate.

Detailed Description of Transition Risks

Name	**TR3:** Increase in imports of high-GHG-emission steel products into countries in the region because of the implementation of climate change measures that discourage their commercialization in developed countries.			
Description	Environmental regulations such as carbon taxes on imports — e.g., the EU's CBAM — could divert surplus high-emission steel production to regions with weaker regulations, such as Latin America. If Peru implements a carbon tax without a similar adjustment for imported products, the local industry would face a marked disadvantage. These factors would increase supply and create a competitive disadvantage, leading to reduced sales and margins.			
Criticality	Considerable	Considerable	Considerable	Considerable
Methodology and Scenario	NDC Scenario: Transformation (Tr.) – 100% compliance with the NDCs	IEA Scenario: NZE – Net Zero Emissions by 2050	NGFS Scenario: Low Demand	NGFS Scenario: Fragmented World
Related NDC	*Me1	-	-	-
Type of Risk	Market			
Financial Impact	Considering the 5.5 million tons of long steel imported by the EU in 2022 (1), and under a negative scenario in which 30% of this volume is blocked due to CBAM (2), part of this surplus could be redirected to Latin America — particularly Peru — resulting in a potential loss of USD 570,000 in EBITDA for our company.			
Response Strategies	**Current Strategies** • Continuous monitoring of market variables • Strengthening our competitive position • Continuous updates to the strategic plan and long-term projections **Future Strategies** • Strengthen industry association advocacy • Promote actions to accelerate NDC compliance, laying the groundwork for regulating GHG generation			

Note (1): Data from "European Steel in Figures 2024", Eurofer
Note (2): Objective data from the study “The Impact of the EU CBAM on Global Steel Trade”, Global Efficiency Intelligence

3.4 Physical Risk Analysis

SCENARIOS

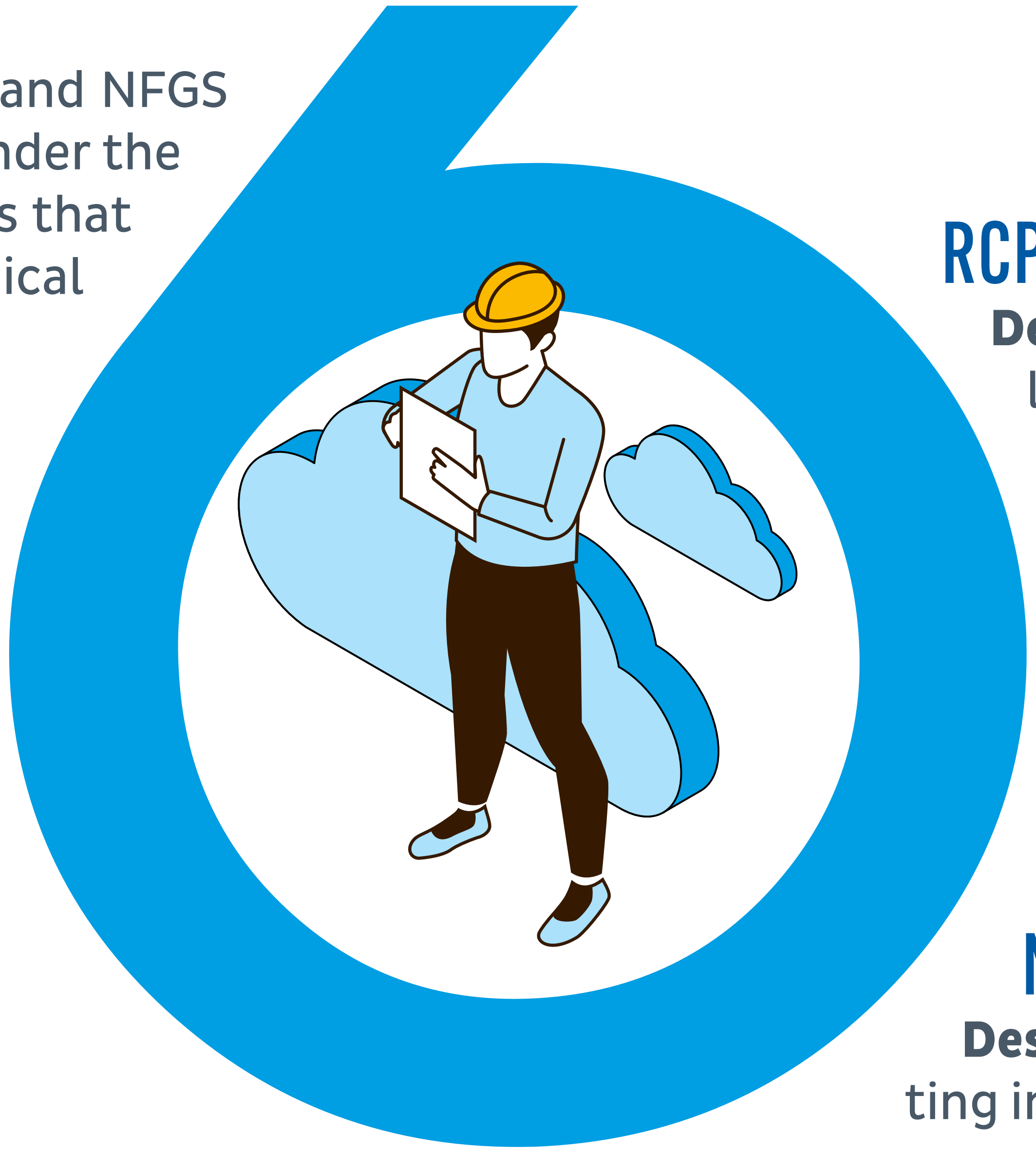
To assess physical risks, we have considered two methodologies: RCP and NFGS (see Annexes 9 and 7). We evaluated the severity of our physical risks under the scenarios proposed by each methodology and prioritized four scenarios that allow us to design more robust action plans within each methodological framework.

RCP 8.5 (RADIATIVE CONCENTRATION PATHWAY 8.5)

Description: This scenario represents a future where GHG emissions continue to rise without significant mitigation. Global temperatures would increase by around 4.9°C compared to pre-industrial levels.
In Peru, this would imply drastic climate changes, with severe impacts on ecosystems, agriculture, water availability, and infrastructure. There would be more frequent and intense extreme weather events, such as prolonged droughts and torrential rains.

NGFS SCENARIO (FRAGMENTED WORLD)

Description: The NGFS Fragmented World scenario envisions uneven and delayed climate action among countries, resulting in high physical and transition risks. Countries with net-zero targets achieve only 80% of their goals, while the rest maintain unchanged policies. This scenario considers the same impacts described in the RCP 8.5 scenario.



RCP 4.5 (RADIATIVE CONCENTRATION PATHWAY 4.5)

Description: This scenario assumes that GHG emissions stabilize by 2100, leading to a global temperature increase of about 2.4°C over pre-industrial levels.

For Peru, this would mean notable climate changes, including increased average temperatures and possible shifts in rainfall patterns. These changes could affect water resources, biodiversity, and increase risks of droughts and floods.

NGFS SCENARIO - LOW DEMAND

Description: This scenario forecasts GHG stabilization by 2100, also resulting in a ~2.4°C global temperature rise.

In Peru, this would result in fewer extreme weather events like torrential rains, glacier melt, and landslides due to early global climate action.

PHYSICAL RISK ASSESSMENT

To analyze physical risks, we used the guidelines of the GIRO methodology and the scenarios developed by the Intergovernmental Panel on Climate Change (IPCC), as analyzed by Senamhi. The selected scenarios are RCP 4.5, a strong mitigation scenario in which emissions are reduced to half of today's levels by 2080, and RCP 8.5, a business-as-usual scenario in which emissions continue to rise at the current rate—considered the worst-case scenario. Additionally, we applied the NGFS Low Demand and Fragmented World scenarios (see Annex 10).

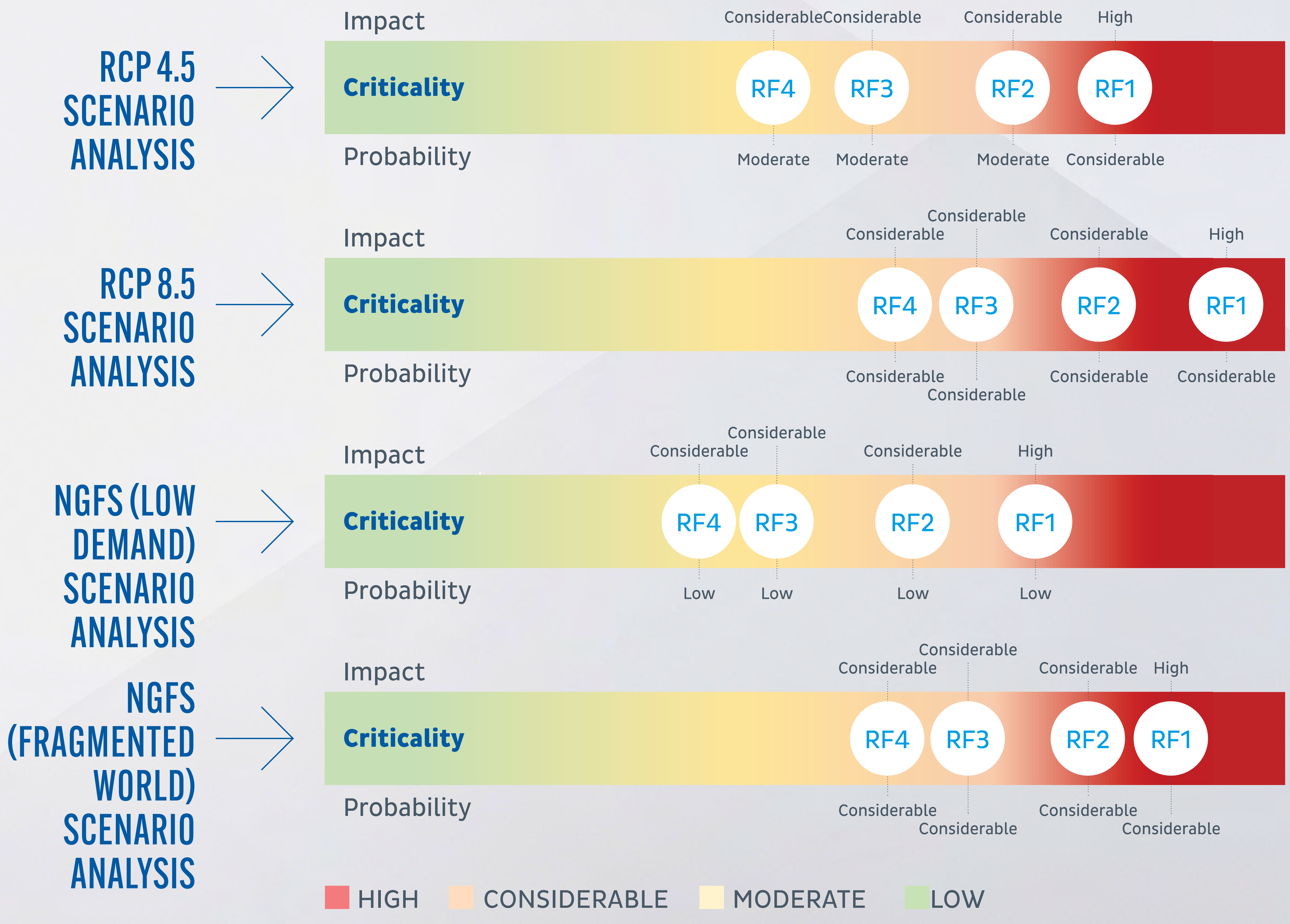
→ PHYSICAL RISKS

PR1
Increased costs due to the use of alternative resources (forced air and desalinated water) for cooling in the production process, resulting from the low availability of groundwater in the area where the steelmaking complex is located.

PR2
Cost overruns due to power outages at the steelmaking complex, caused by damage to the transmission line resulting from the overflow of the Pisco River.

PR3
Loss of sales due to the interruption of access routes and highways caused by landslides and flooding.

PR4
Increased costs due to damage to infrastructure, equipment and products caused by increased rainfall in the areas where the different locations are located.



Physical risks

Description	**PR1:** Increased costs due to the use of alternative resources (forced air and desalinated water) for cooling in the production process, resulting from the low availability of groundwater in the area where the steelmaking complex is located.			
Criticality	High	High	Considerable	High
Methodology and Scenario	Strong Mitigation (RCP 4.5)	Business-as-Usual (RCP 8.5)	NGFS Scenario: Low Demand	NGFS Scenario: Fragmented World
Type of Risk	chronic			
Financial Impact	**Increase in water costs amounting to s/2,910,000** due to the higher use of desalinated water, which would represent **80%** of total water consumption in our operations (See Annex 11)			
Response Strategies	**Current Controls** • We have an industrial water treatment plant that allows us to recirculate process water, optimizing its use. • Since Q4 2021, we have operated two domestic wastewater treatment plants at the steel complex, allowing us to expand treatment capacity. • Since 2021, we have used an air cooler system to cool the water used in the steelmaking process, minimizing losses. • Since 2022, we have had a connection to a groundwater well that, due to elevation differences with the Pisco River, enables natural filtration and allows us to recover water that has flowed into the sea for years. • Since 2023, we have had a supply of approximately 3,000 m^3 per day of desalinated seawater. **Proposed Controls:** • Implement projects to enhance the water treatment system and increase the number of water reuse cycles. • Implement projects and technologies to optimize water consumption in production processes.			

Physical risks

Description	**PR2:** Cost overruns due to power outages at the steelmaking complex, caused by damage to the transmission line resulting from the overflow of the Pisco River.			
Criticality	Considerable	High	Considerable	Considerable
Methodology and Scenario	Strong mitigation (RCP 4.5)	Business-as-usual economic activity (RCP 8.5)	NGFS scenario: low demand	NGFS scenario: fragmented world
Type of Risk	Acute			
Financial Impact	Total economic loss of S/. 4,334,079 due to two days of downtime in our operations at the steel complex, representing S/. 2,481,579, and transmission line repair costs amounting to S/. 1,852,500.			
Response Strategies	**Current Controls** • We have a protocol to monitor the rising water level of the Pisco River, and we carry out cleaning operations with heavy machinery. • We have a contingency plan to restore the electric power transmission system. **Proposed Controls** • Connect to the State's early warning System • Collaborate with the Municipality of Pisco on preventive works to prevent the Pisco River from overflowing			

Physical risks

Description	**PR3:** Loss of sales due to the interruption of access routes and highways caused by landslides and flooding.			
Criticality	Moderate	Considerable	Moderate	Considerable
Methodology and Scenario	Strong mitigation (RCP 4.5)	Business-as-usual economic activity (RCP 8.5)	NGFS scenario: low demand	NGFS scenario: fragmented world
Type of Risk	Acute			
Financial Impact	Not quantified			
Response Strategies	**Current Strategy** • When we know there will be road interruptions due to weather events or scheduled strikes, we plan to increase inventory at the distribution centers (DC) to withstand temporary disruptions. • We have finished-goods warehouses located in strategic areas of the country. **Future Strategy** • Connect to the State's early warning system.			

Physical risks				
Description	**PR4:** Increased costs due to damage to infrastructure, equipment and products caused by increased rainfall in the areas where the different locations are located.			
Criticality	Moderate	Considerable	Moderate	Considerable
Methodology and Scenario	Strong mitigation (RCP 4.5)	Business-as-usual economic activity (RCP 8.5)	NGFS scenario: low demand	NGFS scenario: fragmented world
Type of Risk	Chronic			
Financial Impact	Not quantified			
Response Strategies	**Current Strategy** • The plant is constructed from durable materials; the equipment sits on an asphalted floor and under a roof equipped with water drainage. • An infrastructure maintenance program is in place. • The ground on which the plant sits is level, and no component is located on a slope. • The main operational units—the steel mill and the rolling mill—are under cover. In the case of the steel mill, it is housed within a hermetically sealed hangar due to its smoke-treatment system. **Future Strategy** Connect to the State's early warning system.			

PHYSICAL RISK ADAPTATION PLAN

The physical risk adaptation plan allows us to manage identified risks by reducing vulnerability and adapting our operations to climate change. To achieve this, we implement short-, medium-, and long-term response actions to reduce the vulnerability of our sites. In addition, we commit to reducing our water consumption to 1.30 m^3/t of finished product by 2030.

For a more specific analysis of physical risks, we have divided our sites into three zones according to their location in Peruvian territory, and we have analyzed each physical risk by zone (see annex 12). Includes distribution centers (DC), storage plants (SP), administrative offices (AO), nail plants (NP), pipe plants (PP), steel center, and steel complex.

→ INFOGRAPHIC 1

OUR SITES BY ZONES

NORTH ZONE

DC Trujillo
DC Piura
SP Trujillo

CENTRAL ZONE

LIMA

Administrative Offices
Pipe DC– Trapiche
Steel Center – Lima
PP – Cajamarquilla
SP – Huachipa

CALLAO

DC and PP– Lurín
NP – Callao
SP – Oquendo

SOUTH ZONE

Steel Complex – Pisco
DC– Arequipa

→ MAIN RESPONSE ACTIONS TO IDENTIFIED PHYSICAL RISKS

Code	Criticality	Actions
PR1	High	**Short term** • Calculate the organizational water footprint periodically (Implemented) • Upgrade the water treatment system to increase recirculation of water used in the steel complex (Implemented) • Optimize the use of wastewater within the plant, whether in other operations or for the living fence (Implemented) **Medium term** • Continue evaluating alternatives to replace source water **Long term** • Continue acquiring technologies that can replace water-cooling with forced-air cooling
PR2	High	**Short term** • Annually perform preventive works on the Pisco River and update the site's emergency response plan (Implemented) • Develop the Infrastructure Maintenance Program for the Independencia transmission line, especially for towers 7 and 8, as they are closest to the Murga bridge (Implemented) • Before each season changes, review and disseminate the SENAMHI weather forecast focused on the Pisco River basin, including its source (Implemented) **Medium term** • Coordinate integrated works with the Municipality of Pisco focused on cleaning the banks of the Pisco River before the rainy season in the highlands. • Connect to the State's early warning system in order to forecast events that could harm company activities. **Long term** • Whenever a new site is identified, the zone's vulnerability to climate change (landslides, collapses, road blockages, etc.) must be taken into account.

Code	Criticality	Actions
PR3	High	**Short term** • Check the latest news and other media to ensure there are no blockages on the dispatch route. (If there is a blockage, dispatch is rescheduled until the route is clear. If a blockage occurs en route, the driver finds a safe area until it is freed.) (Implemented) • When we learn of road interruptions due to El Niño or planned strikes, we schedule an increase in DC inventory to withstand temporary disruptions. (Implemented)
		Medium term • Connect to the State's early warning system in order to forecast events that could harm company activities. • Before each season changes, review and disseminate the SENAMHI weather forecast focused on the organization's main transport routes.
		Long term • Evaluate the need to open new distribution centers in the interior of the country to avoid shortages for our customers.
PR4	High	**Short term** • Implement the Emergency Response Plan (flooding) at all CAASA sites, assess vulnerability by zone, and identify the most important material assets. • Develop the Infrastructure Maintenance Program at each organizational site. • Before each season changes, review and disseminate the SENAMHI weather forecast focused on the zones where the sites are located.
		Medium term • Connect to the State's early warning system in order to forecast events that could harm company activities.
		Long term • Whenever a new site is identified, the zone's vulnerability to climate change (landslides, collapses, road blockages, etc.) must be taken into account.

3.5 Opportunities Analysis

To identify the opportunities related to climate change, we analyzed global trends and the NDCs defined by the Peruvian State. We focus on a transformation scenario, which implies fulfilling 100 % of the NDCs. In addition, we prioritize the opportunities identified following the criteria of the GIRO methodology (see annex 13).

This methodology establishes that opportunities are prioritized based on the balance between cost/effort and strategic alignment. In other words, those opportunities with greater strategic alignment and lower required effort will receive higher priority, and vice versa.

WE FOCUS ON A TRANSFORMATION SCENARIO, WHICH IMPLIES FULFILLING 100 % OF THE NDCS.

→ THEMATIC AXIS

HIGH PRIORITY

Energy

OP1: B A
Capitalize on our low footprint to leverage international green financing.

Finished Products Sales

OP2: B A
Entry into new markets through competitive advantage based on lower-emission products.

OP3: B A
Participate in government projects focused on climate change mitigation and adaptation by providing services or products.

Circular Economy

OP4: A A
Co-processing in the steel complex.

MEDIUM PRIORITY

Circular Economy

OP5: A A
Valorize steel slag for use in construction buildings as an alternative to aggregate material

Cost/effort: A High, B Low

Strategic alignment: A High, B Low

DETAIL OF OPPORTUNITIES

We identified the relationship of the opportunities with the NDCs and their scenarios (see annex 14).

Opportunity	Priority	Cuantificación	Associated NDCs	Type
OP1: Capitalize on our low carbon footprint to access international green financing.	High	Not quantified		• Financial
OP2: Entry into new markets through competitive advantage based on lower-emission products.	High	By 2034, Aceros Arequipa would have a cost advantage of approximately US$ 51 per ton compared to other steelmakers using EAF and US$228 per ton compared to the global sector average (see details on p. 60).	*M: Market	• P&S:Products & Services • M: Markets
OP3: Participate in government projects focused on climate change mitigation and adaptation by providing services or products.	High	Potential revenue increase from: • Execution of adaptation projects to new regulations • Increase in LEED-certified projects. • Execution of reconstruction or maintenance projects for infrastructure The potential of this opportunity depends on uncertain variables, such as the next Peruvian government entering in 2026 and climatic events (see details on p. 39).	• E6: Promotion of sustainable construction in new buildings • E7: Implementation of complementary corridors of the Lima Integrated Transport System. • E8: Implementation of Lines 1 and 2 of the Lima and Callao Metro • E13: Andean Tunnel Construction Project • E14: Improvement of railway service on the Tacna-Arica section • E15: Comprehensive rehabilitation of the Huancayo-Huancavelica railway	• P&S:Products & Services

Opportunity	Priority	Cuantificación	Associated NDCs	Type
OP4: Co-processing in the steel complex	High	Not quantified	E4: Use of waste-derived fuels as a substitute for fossil fuels in clinker production kilns	• RE: Resource efficiency • EF: Energy source
OP5: Valorize steel slag for use in construction buildings as an alternative to aggregate material.	High	Not quantified	M1: Clinker substitution to reduce the clinker/cement ratio by producing blended cements	• RE: Resource efficiency • M: Markets

RESPONS

CURRENT

- We actively participate in the State's reconstruction projects and flagship Works
- We develop projects related to the circular economy:
  a. Since 2019, we have manufactured ecoblocks based on eco-gravel, which allows us to mark pedestrian areas and implement walls in the storage of raw materials and industrial by-products.
  b. Since 2021, we have implemented the project of recovering zinc oxide from steel mill dust.
  c. Since 2023, we have implemented the Eddy Current process, which allows us to recover non-ferrous metals and reintegrate them into the recycling value chain.

FUTURE

- Evaluate the possibility of performing co-processing in the steel complex and adapt it to the new maximum permissible limits (MPL) for atmospheric emissions.
- Participate in all State projects with the services offered by CAASA.
- Participate in the eco-driving trainings that the State would implement according to NDC E11, so that the drivers of the transport units use fuel efficiently.
- Evaluate the possibility of signing agreements with cement companies to supply steel slag.
- Develop new projects related to the circular economy.

Source: Own elaboration
These are sources of opportunities, but they are not part of the NDCs. Instead, they refer to a scenario involving actions taken in response to climate change. Their legend is: Me – Market and T – Technology.
Note 1: The classification themes used for the NDCs have the following legend: E – Energy and M – Industrial Processes.
Note 2: The legend for the types of opportunities is as follows: ER – Resource Efficiency, FE – Energy Source, PyS – Products and Services, Me – Market, .R – Reputation

DETAIL OP2: ENTRY INTO NEW MARKETS THROUGH COMPETITIVE ADVANTAGE FROM LOWER-EMISSION PRODUCTS

The CBAM (Carbon Border Adjustment Mechanism) is a progressive tax that the EU would apply starting in 2026 to imports with a high carbon footprint—such as aluminum, cement, electricity, fertilizers, hydrogen, iron, and steel—in order to prevent carbon leakage and align the carbon price between local producers and importers.

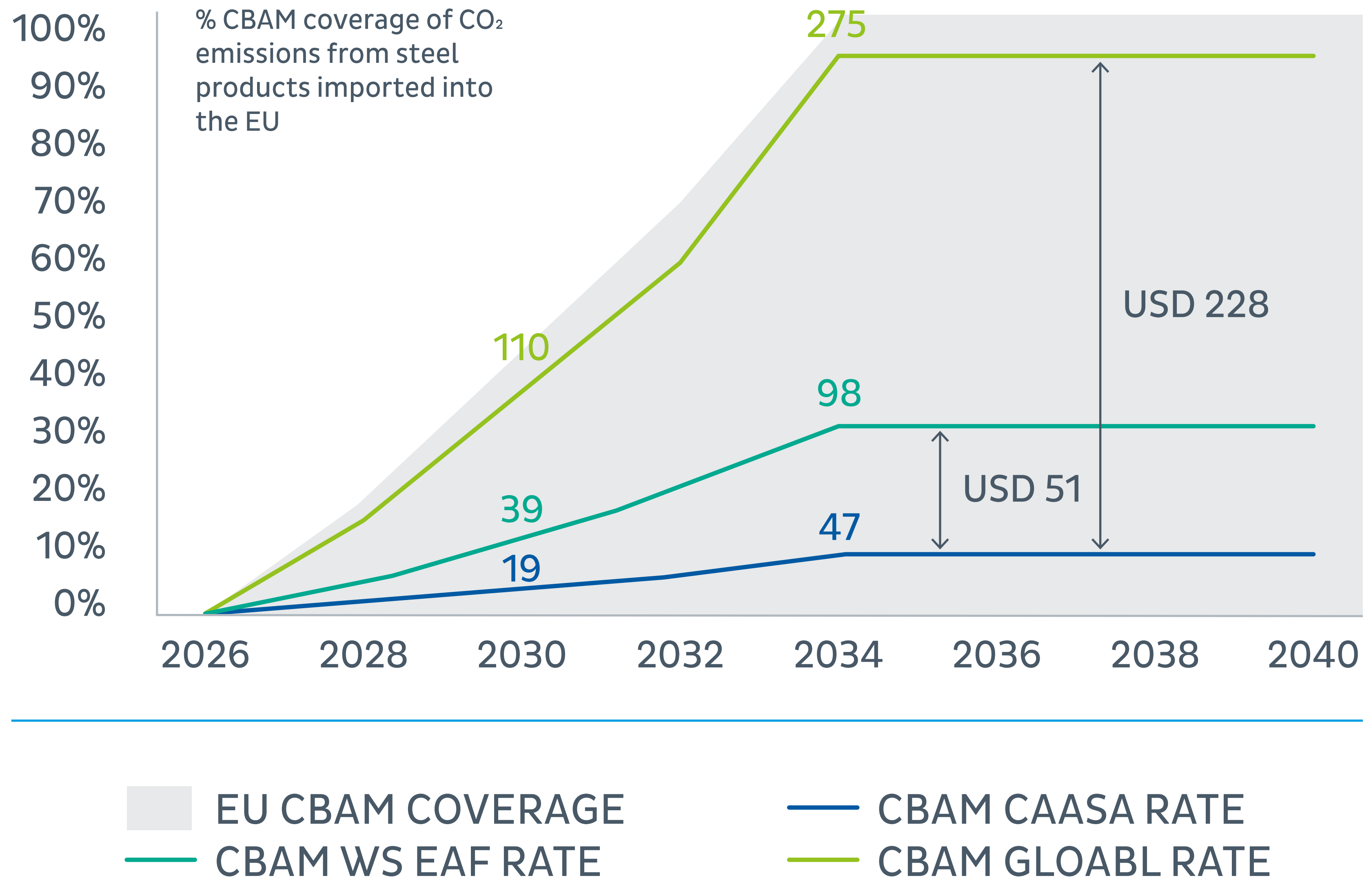
Its implementation, which will be gradual, will begin with the requirement to cover 2.5% of emissions with CBAM certificates. This percentage will progressively increase until it reaches 100% by 2034. According to Platts, the cost of these certificates would range between €90 and €100 per ton of CO_2 between 2027 and 2028, with the possibility of increasing as the percentage of emissions subject to certification rises.

In this scenario, importers of high-emission steel will face higher costs, while companies with a low carbon footprint, such as Aceros Arequipa, will have a competitive advantage by significantly reducing their tax burden and offering more competitive prices in the European market.

Assuming that the CBAM implementation timeline is met—with 100% coverage by 2034 and a gradual increase in certificate prices—and using the average emission factors of the global steel industry as a reference, it is estimated that by 2034 Aceros Arequipa would have a cost advantage of approximately US$51 per ton compared to the global average of steelmakers using EAF (Electric Arc Furnace) technology, and US$228 per ton compared to the global industry average.

→ GRAPH 9

CBAM COVERAGE AND PAYABLE TARIFFS BASED ON CO_2 EMISSIONS RATIO PER TON OF STEEL%



BY 2034, ACEROS AREQUIPA WOULD HAVE A COST ADVANTAGE OF APPROXIMATELY US$51 PER TON COMPARED TO THE GLOBAL AVERAGE OF EAF-BASED STEELMAKERS, AND US$228 PER TON COMPARED TO THE GLOBAL INDUSTRY AVERAGE.

DETAIL OP3: PARTICIPATE IN GOVERNMENT PROJECTS FOCUSED ON CLIMATE CHANGE MITIGATION AND ADAPTATION BY PROVIDING SERVICES OR PRODUCTS

At CAASA, we have identified market opportunities related to climate change, which are divided into three categories: adaptation to new regulations, access to product markets, and adaptation to climate change.

→ ADAPTATION TO NEW REGULATIONS

Since 2020, we have identified opportunities to participate in various Peruvian government projects that align with the Nationally Determined Contributions (NDCs). These projects include:

- Construction of the Trans-Andean Tunnel
- Improvement of railway transport service on the Tacna-Arica route
- Implementation of Lines 1 and 2 of the Lima and Callao Metro
- Integral rehabilitation of the Huancayo-Huancavelica railway

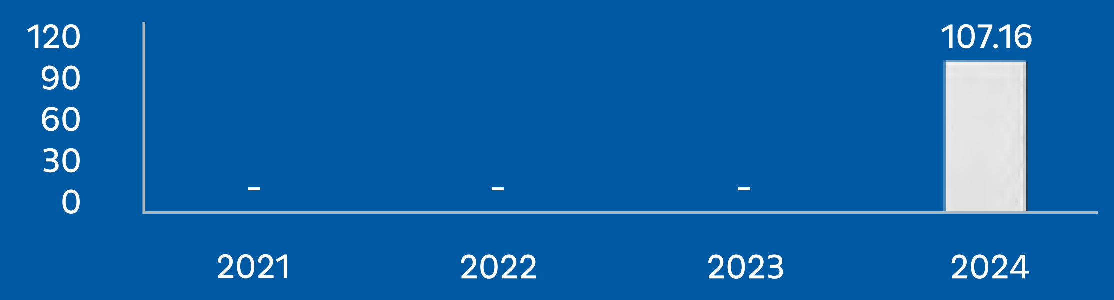
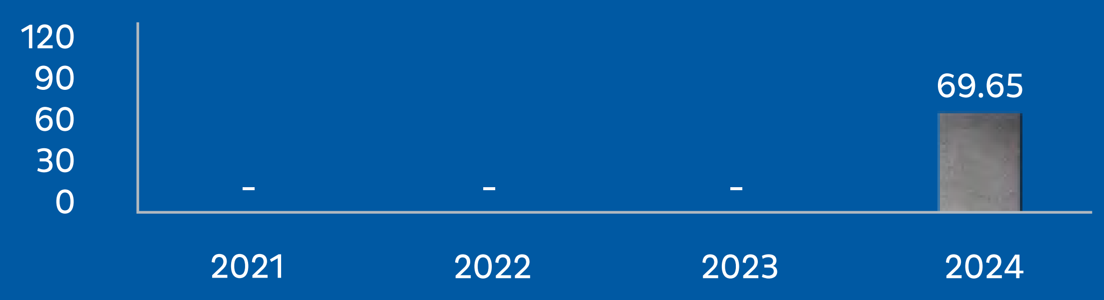
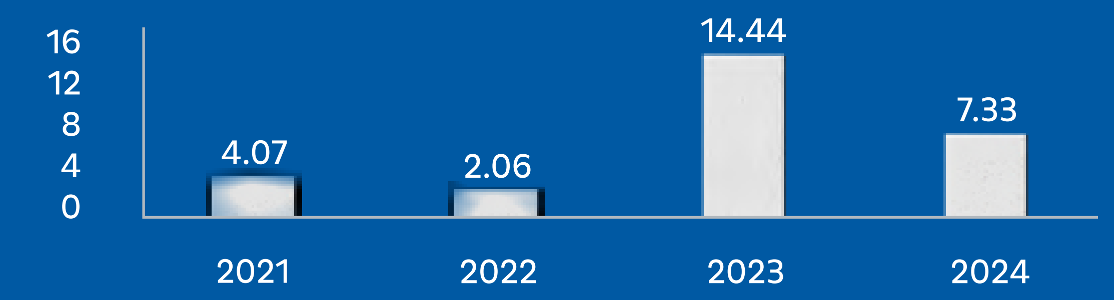
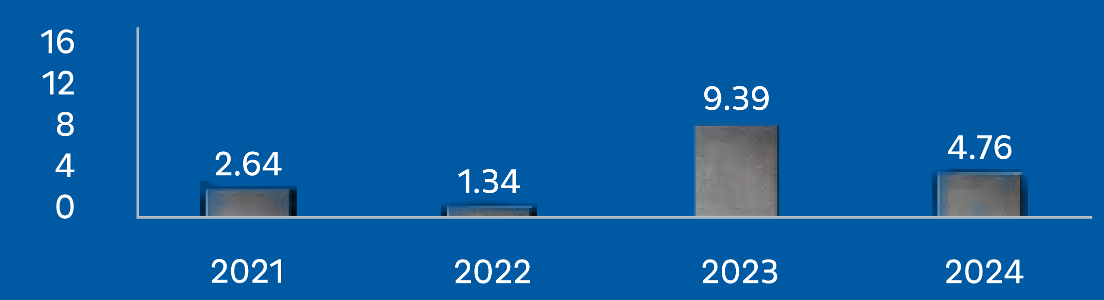
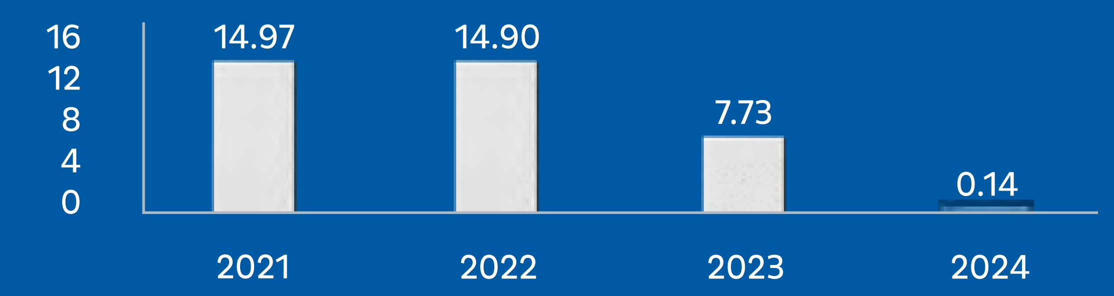
→ ACCESS TO PRODUCT MARKETS

As part of the Peruvian government's efforts to promote sustainable construction, we provide our clients with environmental declarations regarding the origin and the percentage of recycled steel used in the manufacturing of purchased products.

With this information, our clients can apply for LEED certification, allowing them to obtain benefits and subsidies for each of their projects.

→ ADAPTATION TO CLIMATE CHANGE

Every year, we participate in various reconstruction or infrastructure maintenance projects led by the government, which have been—or could be—impacted by climate change.

OPPORTUNITIES	FINANCIAL IMPLICATIONS	ESTIMATED TIME	ANNUAL COSTS
ADAPTING TO NEW REGULATIONS Participate in the State's infrastructure projects, within the framework of compliance with the NDCs	Revenue (In millions of soles) 	By 2030	Costos (In millions of soles) 
ACCESS TO PRODUCT MARKETS Participate in so-called "sustainable" projects for LEED certification	Revenue (In millions of soles) 	By2030	Costos (In millions of soles) 
ADAPTATION TO CLIMATE CHANGE Participate in the reconstruction and/or maintenance of State infrastructure projects	Revenue (In millions of soles) 	By2030	Costos (In millions of soles) 

CHAPTER 4

GOVERNANCE

4.1 Governance Structure

Our governance model promotes climate change management as a collaborative effort, aimed at advancing toward a sustainable, efficient, and profitable transition. This ensures our competitiveness in the market and enables a visible and effective response to the impacts of climate change.

To achieve this, we integrate sustainability into our corporate strategy across our three levels of governance: strategic, tactical, and operational.

At the strategic level, the Board of Directors, through the strategic planning cycle, provides guidance for executing the sustainability strategy, which includes climate change. The Management Committee is responsible for reviewing and aligning the sustainability strategy with the corporate strategy during the corporate strategic planning meeting. The Sustainability Committee oversees the sustainability strategy and monitors progress in meeting objectives.

Managers and area leaders are responsible for aligning their functional plans and teams with priorities, objectives, and initiatives related to climate change risk and opportunity management within their areas. This includes taking actions to mitigate climate-related risks, seize emerging opportunities, and integrate climate management into the daily planning and execution of operations.

On the other hand, support areas play a key role in implementing objectives and initiatives related to climate change, as well as providing methodological advice, best practices, and standards for managing climate-related risks and opportunities. These areas include environment, quality management, continuous improvement, strategic planning, and risk management.

Finally, we engage our employees through participation in climate-related initiatives and actions for which they are responsible. Through regular progress reports, we ensure that goal achievement and initiative implementation are aligned with our sustainability strategy.

In addition, we have an environmental management incentive strategy that seeks to recognize and reward the performance of our team in implementing environmental projects. Executives—from managers to employees—are part of an incentive system, both monetary and non-monetary, that includes targets and initiatives aimed at reducing emissions and improving the efficiency of natural resource use. (See annex 15)

ESTRATEGIC

Board
CEO

Sustainability Committee
- Oversee the sustainability strategy
- Monitor progress in meeting goals

TACTICAL

Management
- Aligning your functional plans and teams on priorities
- Ensure the fulfillment of your objectives and initiatives
- Management of risks and opportunities in the face of climate change of the processes under their responsibility

Support areas
- Support the implementation of climate change goals and initiatives
- Provide methodological advice, good practices and standards

OPERATIONAL

Employees
- Implement initiatives and actions to fulfill the Sustainability Strategy, reporting progress periodically.

SUSTAINABILITY COMMITTEE

Since 2020, CAASA has had a Sustainability Committee made up of leaders from various areas of the organization, including our General Manager. Its objective is to promote the adoption of international sustainability standards and foster the continuous improvement of our business practices in order to generate value for shareholders, employees, clients, suppliers, the environment, and the communities within our area of influence.

This strategic and advisory committee oversees compliance with our sustainability commitments and plans, including the management of climate change-related risks and opportunities. Below is a list of the members of the Sustainability Committee. This committee plays a key role in embedding responsible practices into CAASA's management approach and reinforces our commitment to becoming a sustainability leader. Its efforts drive actions that create shared value and ensure a positive impact on both our operations and society.

In 2024, the committee welcomed two new members: Mariana Olivares, Legal Affairs Manager, and Gonzalo Arróspide del Busto, Corporate Commercial Manager, with the aim of strengthening its capacity to address strategic challenges from a multidisciplinary perspective. During this period, the committee held three working sessions in which key topics related to the company's sustainable progress were discussed.

MEMBERS OF THE SUSTAINABILITY COMMITTEE

Tulio Silgado Consiglieri
Chief Executive Officer

Ricardo Cillóniz Rey
Projects, Mining, Corporate Social Responsibility and Innovation Manager*

Fernando Bustamante Cillóniz
Strategic Control Manager

Augusto Cornejo Cañedo
Central Production Manager

Mariana Olivares Maldonado
Legal Affairs Manager

Mariana Talavera Rubina
Supply Chain Manager

Ricardo Guzmán Valenzuela
Chief Financial Officer

Juan Manuel Otoya Wherrems
Human Resources Manager

Gonzalo Arróspide del Busto
Corporate Commercial Manager

* Chair of the Committee. Responsible for communicating progress and key agreements within the organization, and submitting them for Board approval when necessary.

4.2 Lobbying and the Paris Agreement

Our management system includes activities and memberships in trade associations, backed by our Code of Ethics. This code outlines guidelines for our relationships with customers, suppliers, the government, society, and the environment. We require adherence to ethical principles, current legislation, and environmental regulations, as well as respect for human rights and socially responsible practices. We also expect socially and environmentally responsible behavior from our suppliers and contractors.

Our climate change actions are aligned with the Paris Agreement, with targets for emissions reduction and carbon neutrality by 2030 and 2050, respectively. Furthermore, our risk analysis focuses on compliance with Peru's NDCs and the opportunities that arise from government policies. We actively participate in various industry-related organizations (see Annex 16).

COP21 · CMP11
PARIS 2015
CONFERENCIA DE NACIONES UNIDAS
SOBRE CAMBIO CLIMÁTICO 2015

COMMITTEE ON ENVIRONMENTAL PUBLIC POLICIES (COPAM) AND COMMITTEE ON ENVIRONMENTAL TECHNOLOGIES (COTEC)

Latin American Steel Association (Alacero)

In 2024, meetings were held within the framework of COPAM and COTEC. An ESG indicators report was prepared for Alacero's Sustainability Report, and an environmental benchmarking visit was conducted at a member steel company to identify best practices in environmental management.

CLIMATE CHANGE SUBCOMMITTEE

Ministry of Production / National Institute for Quality (Inacal)

In October 2024, we participated in the development and approval of the Peruvian Guide (GP-ISO 84) on Guidelines for Addressing Climate Change in Standards. In November 2024, we collaborated on the development and approval of the Peruvian Technical Standard (NTP-ISO 14091) on Climate Change Adaptation, which sets out guidelines on vulnerability, impacts, and risk assessment.

CLEANER PRODUCTION AGREEMENT PROGRAM
Ministry of Production / General Directorate of Environmental Affairs for Industry

Meetings were held with representatives from the Ministry of Production (Produce), and in December 2024, a draft document titled Expression of Interest was submitted via email to Produce representatives for preliminary evaluation.

LEARNING NETWORK ON ENERGY MANAGEMENT SYSTEMS
Ministry of Energy and Mines / General Directorate of Energy Efficiency

We have participated in both virtual and in-person workshops. In November 2024, the Energy Management Committee was established. In December 2024, consultants visited to identify improvement opportunities related to energy efficiency.

CARBON FOOTPRINT PERU PROGRAM
Ministry of Environment / General Directorate of Climate Change and Desertification (DGCCD)

In June 2024, we received the first and second stars of the Carbon Footprint Peru Program for calculating and verifying our 2023 greenhouse gas (GHG) emissions inventory. In July 2024, we earned the third star for reducing our GHG emissions inventory compared to the previous year (2022). In December 2024, we were awarded the fourth star for strengthening climate management with our suppliers.

INFOCARBONO
Ministry of Environment / General Directorate of Climate Change and Desertification (DGCCD)

We regularly provide information on fuel consumption, ferrous material use, and other sources of GHG emissions. In October 2024, we participated in the Quality Assurance Workshop for Peru's National Greenhouse Gas Inventory (INGEI), organized by the Ministry of Environment with technical support from experts from the United Nations Framework Convention on Climate Change (UNFCCC), who reviewed Peru's 2020–2021 INGEI.

CHAPTER 5

ANNEXES

Annex 1: Tracking Metrics

Metric	Unit	Period						Target (2030)	Target (2050)
		2019	2020	2021	2022	2023	2024		
Water consumption per finished product	m^3/ t finished product	1.40	1.36	1.27	1.44	1.41	0.67	1.30	-
GHG emissions by finished product(1)	tCO_2e/ t finished product	0.33	0.32	0.31	0.37	0.36	0.35	0.23	0.11
GHG emissions from liquid steel(1)	tCO_2e/ t liquid steel	0.38	0.38	0.39	0.35	0.37	0.33	0.26	0.11
CO_2 emissions from liquid steel (WS)(2)	tCO_2/ t liquid steel	0.68	0.65	0.66	0.47	0.45	0.39	-	-
CO_2 emissions from liquid steel (WS)(3)	tCO_2/ t liquid steel	0.37	0.37	0.38	0.34	0.35	0.32	0.31	-
CO_2e emissions from hot-rolled steel (SBTi)(4)	tCO_2/ t hot rolled	0.33	0.31	0.31	0.37	0.35	0.34	0.28	-
Organizational carbon footprint (scope 1 + scope 2)	Thousands of tCO_2e	331.43	240.61	358.48	418.25	389.48	384.23	85% of the baseline	10% of the baseline
Carbon footprint (Scope 3)	Thousands of tCO_2e	130.15	137.34	281.77	289.87	136.30	117.17	-	20% of the baseline
Total carbon footprint (scope 1 + scope 2 + scope 3)	Thousands of tCO_2e	461.58	377.49	640.25	708.12	525.77	501.39	-	-
Electrical energy consumption per finished product	kWh/t	661.34	642.76	625.57	751.55	701.10	747.54	620.00	-
Utilization of industrial by-products	%	37.8	52.0	40.0	24.4	33.0	26.0	60.00	-

(1) The tons of the numerator are the sum of scopes 1 and 2 of all CAASA operations.
(2) The calculation is developed with the methodology of the Worldsteel Association considering scopes 1, 2 and 3.
(3) The calculation is developed with the Worldsteel Association methodology considering only scopes 1 and 2.
4) The calculation is developed within the framework of alignment with SBTi considering only scopes 1 and 2
Note: t finished product = t hot rolled

Annex 2: Scope Determination for Science-Based Target Setting

→ CAASA'S CENTRAL BOUNDARY FOR SETTING SBTI TARGETS

INPUTS	IRON AND STEEL FABRICATION		DOWNSTREAM OF THE PROCESS	DOWNSTREAM VALUE CHAIN
Steel scrap collection and sorting	Coke production	Oxygen plant	Hot Rolling	Exported waste gas emissions
Upstream Transportation	Sintering	Lime production	Cold Rolling	Energy export
Coal mining	Blast furnace	Palletizing	Lining	Blast furnace slag export
Natural Gas Extraction	Basic Oxygen Furnace	Boilers and Power Plant (surplus gas)		Downstream transportation
Energy production (imported)	Foundry	Smelting reduction		Construction
H2/syngas production	DRI	Electric Arc Furnace		
Extraction of other petroleum products		Secondary metallurgy		
Biomass and biogas production				
other				

■ Processes included within CAASA's operational boundary

Fuente: Elaboración propia.

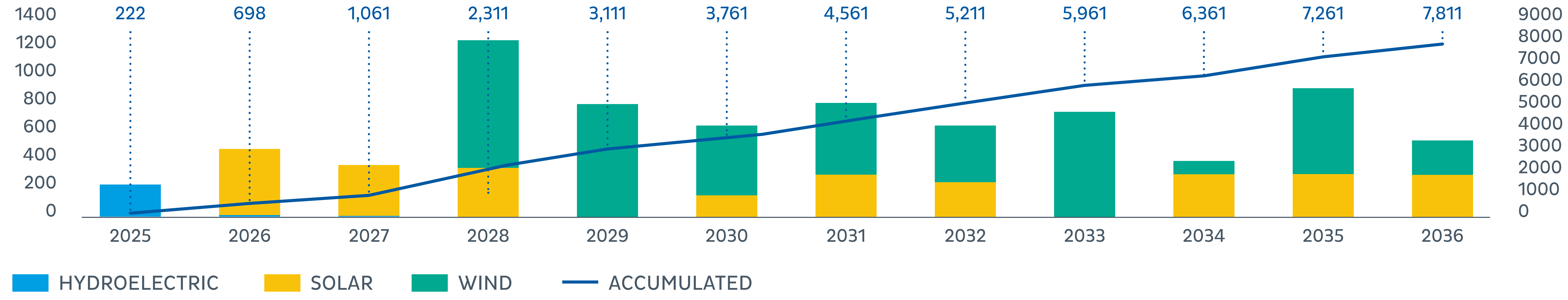
Annex 3: Green Hydrogen and Renewable Energy Production in Peru

Green hydrogen has gained relevance in Peru as part of its energy transition. Since 2021, with the enactment of Law No. 31324, a legal framework has been established to promote its production, leveraging the country's renewable resources. This law encourages research, technological development, and investment in green hydrogen infrastructure. Although the country is still in the early stages—with pilot projects and a regulatory framework under development—it continues to move toward the decarbonization of its energy matrix. Nevertheless, challenges remain, such as the need for infrastructure and tax incentives to attract more investment.

An important factor for generating green hydrogen is the availability of electricity from renewable sources. By the end of 2024, peak energy demand in Peru exceeded 7,500 MW, with 59% of generation coming from renewable sources (hydropower, solar, and wind). According to the Diagnostic Report on the Operating Conditions of the National Interconnected Electric System (SEIN) for the period 2027–2036, prepared by the Economic Operation Committee of the National Interconnected System (COES-SINAC), additional SEIN demand will be met by committed projects during the 2025–2027 period, which will add 710.7 MW of installed capacity from hydro and solar sources. For the 2027–2036 period, non-committed projects are expected to add 7,100 MW of installed capacity from solar and wind sources. This scenario enhances the prospects for green hydrogen projects across the Peruvian territory.

→ GRAPH 10

INCREASE IN ELECTRIC POWER GENERATION CAPACITY IN THE SEIN (Installed Capacity by Technology (MW))



Source: Adapted from the Diagnostic Report on the Operating Conditions of the National Interconnected Electric System (SEIN) (2027–2036 period) by COES-SINAC

→ TABLE 5
ELECTRIC POWER GENERATION PROJECTS FOR THE 2025–2027 PERIOD WITH COMMITTED PROJECTS

Date	Project	Technology	Power (MW)
Jan-25	CH Centauro - stage I	Hydroelectric	12.5
Ago-25	CH San Gabán III	Hydroelectric	209.3
Jan-26	CH Anashironi	Hydroelectric	20
Jan-26	CS San Martín Solar	Solar	252.4
Jan-26	CS Sunny	Solar	204
Jul-27	CH Centauro - stage II	Hydroelectric	12.5

Source: Adapted from the Diagnostic Report on the Operating Conditions of the National Interconnected Electric System (SEIN) (2027–2036 period), COES-SINAC.

→ TABLE 6
OTHER ELECTRIC POWER GENERATION PROJECTS FOR THE 2027–2036 PERIOD

Date	Project	Technology	Power (MW)
2027	CS Poroma 1	Solar	100
	CS Moquegua 1	Solar	150
	CS San José 1	Solar	100
2028	CS San José 2	Solar	350
	CE Marcona 6	Wind	150
	CE Niña 2	Wind	250
	CE Marcona 1	Wind	100
	CE Marcona 3	Wind	300
	CE Niña 1	Wind	100
2029	CE Felam 1	Wind	200
	CE Marcona 2	Wind	300
	CE Marcona 4	Wind	150
	CE Marcona 10	Wind	150
2030	CS San José 3	Solar	150
	CE Marcona 9	Wind	250
	CE Marcona 7	Wind	100
	CE Marcona 16	Wind	150
2031	CE Marcona 11	Wind	350
	CS Moquegua 2	Solar	300
	CE Felam 3	Wind	150
2032	CE Poroma 3	Wind	200
	CE Marcona 12	Wind	200
	CS San José 6	Solar	100
	CS San José 8	Solar	50
	CS San José 9	Solar	100
2033	CE Marcona 13	Wind	250
	CE Niña 3	Wind	200
	CE Pariñas 3	Wind	300
2034	CS Montalvo 1	Solar	300
	CE Piura 1	Wind	100
2035	CE Marcona 15	Wind	250
	CE Chiclayo 1	Wind	200
	CS Montalvo 2	Solar	300
	CE Chiclayo 2	Wind	150
2036	CE Chiclayo 3	Wind	250
	CS Ocoña 2	Solar	300

Source: Adapted from the Diagnostic Report on the Operating Conditions of the National Interconnected Electric System (SEIN) (2027–2036 period), COES-SINA

Annex 4: Climate Management Process at CAASA

ENVIRONMENT

GOVERNANCE

Board
Sustainability Committee

STRATEGY

Mitigation approach
- Energy efficiency
- Lower carbon processes
- Electromobility

Adaptation approach
- Water efficiency
- Emergency control
- Business continuity

RISKS AND OPPORTUNITIES

Transition Risks — **Physical Risks** — **Opportunities**

METRICS AND OBJECTIVES

Initiatives/ Indicators/ Targets

RESULTS

→ SCOPE OF ENVIRONMENTAL MANAGEMENT AT CAASA

UPSTREAM

Supply of raw materials (ferrous scrap)
- Storage Plant Trujillo
- Storage Plant Huachipa
- Storage Plant Oquendo

Physical risks
Transition Risks

PROCESS

Operation Support
- Administrative offices

Crude steel production
- Pisco Steel Complex

Steel Processing
- Pipe Plant- Cajamarquilla
- Distribution Center - Callao
- Nail Plant – Callao
- Distribution Center and Tube Plant - Lurin

Physical risks
Transition Risks

DOWNSTREAM

Finished product storage and distribution
- Steel Center Lima
- Distribution Center - Piura
- Distribution Center - Arequipa
- Distribution Center - Trujillo

Physical risks
Transition Risks

Annex 5 : Methodologies and scenarios for assessing transition risks

→ METHODOLOGY: NATIONALLY DETERMINED CONTRIBUTIONS (NDCS)

For the qualitative analysis of transition risks, we used the scenarios related to the compliance with the NDCs of the Peruvian State to determine possible futures according to the policies and actions implemented for a transition toward a low-carbon economy and energy security.

SCENARIOS

Based on the analysis conducted by Marsh & McLeman, we propose four scenarios:

TRANSFORMATION

100% compliance with the NDCs. Ambitious and strict climate change policies and mitigation actions have put the world on the path to limit global warming to 1.5°C above pre-industrial levels by the end of 2030.

COORDINATION

Between 50% and less than 100% compliance with the NDCs by 2030. Climate change policy and mitigation actions are aligned and consistent, keeping global warming at 2.0°C above pre-industrial levels by the end of 2030.

FRAGMENTATION (LOW DAMAGE)

Between 30% and 50% compliance with the NDCs by 2030. Limited climate action and lack of coordination result in warming exceeding 2°C above pre-industrial levels by the end of 2030.

FRAGMENTATION (HIGH DAMAGE)

Less than 30% compliance with the NDCs. Limited climate action and lack of coordination cause warming to increase to 4°C or more above pre-industrial levels by 2030. The physical impacts of this warming are felt with greater severity.

NDCS APPLICABLE TO CAASA

Based on the evaluation of these scenarios, we identified the applicable NDCs. With regard to adaptation NDCs, no opportunities related to CAASA were found, but applicable mitigation NDCs were identified.

ADAPTATION NDCS

No NDCs related to CAASA involving any risks or opportunities have been identified.

MITIGATION NDCS

Energy – Stationary Combustion

- **E1:** Combination of renewable energies
- **E2:** Cogeneration
- **E3:** Energy efficiency in the industrial sector
- **E4:** Use of waste-derived fuels as a substitute for fossil fuels in clinker production kilns. (This measure was considered since CAASA has rotary kilns in which co-processing is possible, using alternative fuels made from shredder waste.)
- **E5:** Energy efficiency through comprehensive interventions in the manufacturing industrial sector
- **E6:** Promotion of sustainable construction in new buildings. (This measure was considered since sustainable building materials include rebar that qualifies under LEED criteria for materials and resources credits.)

Energy – Mobile Combustion

- **E7:** Implementation of complementary corridors for the Lima Integrated Transport System.
- **E8:** Implementation of Lines 1 and 2 of the Lima and Callao Metro.
- **E9:** Promotion of cleaner fuels
- **E10:** Promotion of electric vehicles nationwide. (This measure was considered because CAASA outsources transportation services for employees at the Pisco site.)
- **E11:** Training in efficient driving for professional drivers
- **E12:** National Vehicle Scrappage and Renewal Program
- **E13:** Construction Project of the Trans-Andean Tunnel
- **E14:** Improvement of railway service on the Tacna-Arica section
- **E15:** Comprehensive rehabilitation of the Huancayo-Huancavelica railway

Industrial processes and product use

M1: Clinker substitution to reduce the clinker-to-cement ratio by producing blended cements. (This measure was considered since CAASA generates steel slag, one of the proposed materials to replace clinker.)

→ METHODOLOGY: IEA

For the quantitative analysis, we used the scenarios developed by the IEA in its Global Energy and Climate Model (GEC), the main tool for generating long-term scenarios. The WEO-2022 and ETP-2023 reports, based on the GEC, explore three scenarios: NZE (normative), APS, and STEPS (exploratory), considering initial conditions and market dynamics to analyze the future energy trajectory.

SCENARIOS

Based on the analysis by Marsh & McLeman, we propose four scenarios:

NZE
(NET ZERO EMISSIONS BY 2050)
Lays out a pathway to carbon neutrality by 2050, prioritizing electrification and renewables, and ensuring universal access to electricity and clean cooking by 2030.

APS
(ANNOUNCED PLEDGES SCENARIO)
Assesses full and timely compliance with global climate commitments and highlights gaps in relation to the Paris 2015 goals and universal energy access.

STEPS
(STATED POLICIES SCENARIO)
Reflects current energy and climate policies and provides a benchmark for assessing the impact of ongoing policies.

DETAIL

Although a carbon price has not yet been implemented in Peru, for our analysis we considered the experience of Chile and Colombia in this regard. For the APS and NZE scenarios, we start from the context of an emerging and developing market economy and take into account the Peruvian State's recent commitments made in 2021 toward net zero emissions.

→ TABLE 7
CARBON PRICE FOR ELECTRICITY, INDUSTRY, AND ENERGY PRODUCTION IN SELECTED REGIONS BY SCENARIO

Price (US$/t CO_2)	2030	2040	2050
STEPS Scenario			
Canada	54	62	77
Chile, Colombia	13	21	29
China	28	43	53
European Union	90	98	113
Korea	42	68	89
APS Scenario			
Advanced economies with net-zero pledges	135	175	200
Emerging and developing market economies with net-zero pledges	40	110	160
Other emerging and developing market economies	-	17	47
NZE 2050 Scenario			
Advanced economies with net-zero pledges	140	205	250
Emerging and developing market economies with net-zero pledges	90	160	200
Other emerging and developing market economies	25	85	180

Source: Adapted from IEA, Global Energy and Climate Model.

Annex 6: NGFS Methodology – Applicable to Transition and Physical Risks

→ NGFS METHODOLOGY

We also considered the NGFS scenarios, which were developed to provide a common starting point for analyzing the impact of climate risks on the economy and the financial system. These scenarios map out different futures depending on how climate change evolves (physical risk), transition policies, technological developments, and changes in preferences (transition risk).

DIMENSIONS AND SCENARIOS

Based on the analysis conducted by Marsh & McLeman, we propose four scenario categories:

ORDERLY SCENARIOS

Assume climate policies are introduced early and become gradually more stringent. Both physical and transition risks are relatively moderate.

DISORDERLY SCENARIOS

Explore higher transition risks due to delayed or inconsistent policies between countries and sectors. For example, carbon prices (indirect) tend to be higher to achieve a specific temperature outcome.

HOT HOUSE WORLD

Assume some climate policies are implemented in select jurisdictions, but global efforts are insufficient to curb significant global warming. These scenarios result in severe physical risk, including irreversible impacts.

TOO LITTLE, TOO LATE

Assume a late and uncoordinated transition that fails to limit physical risks.

These four scenarios present seven dimensions.

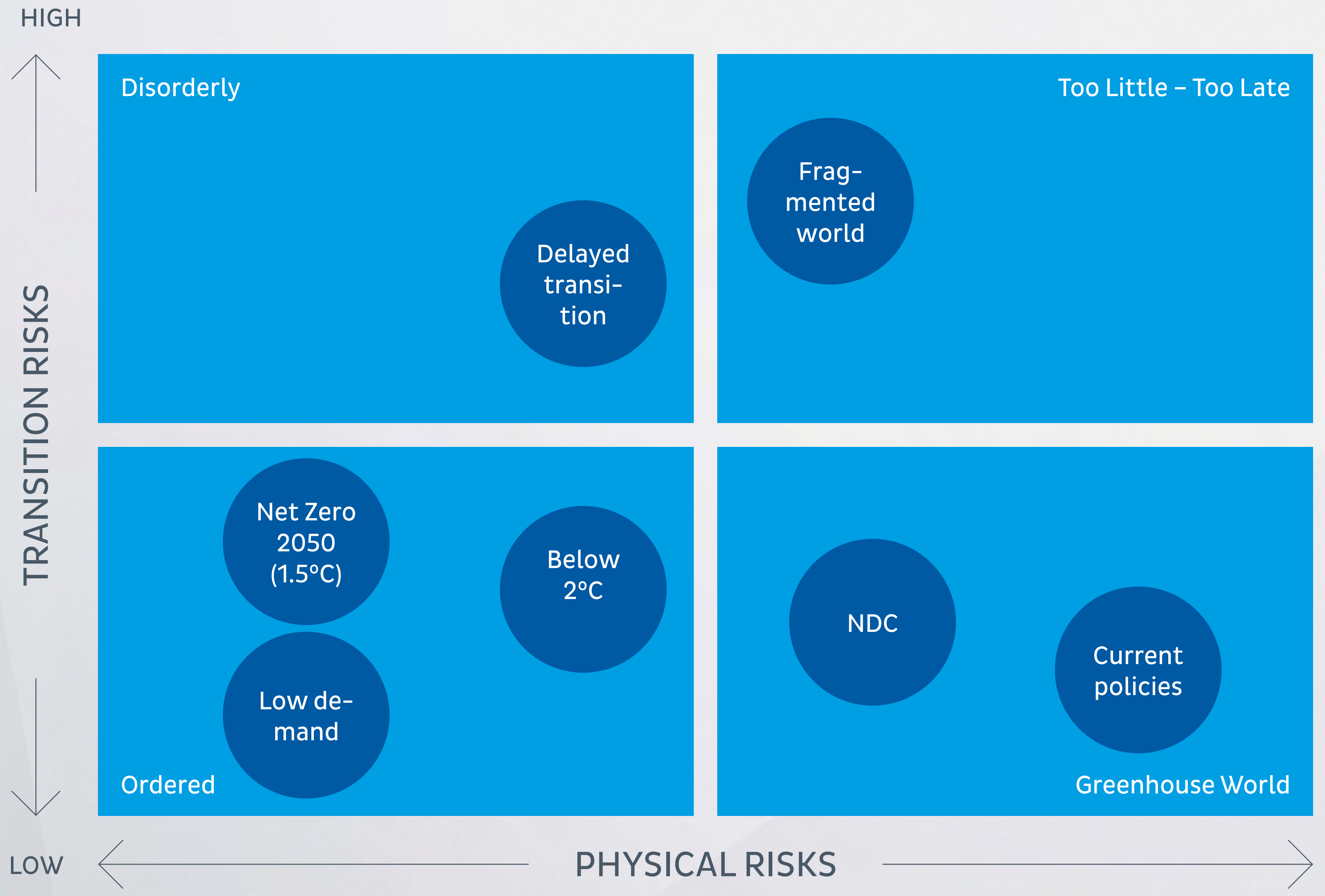
Orderly Scenarios	Disorderly Scenario	Hot House World	Too Little, Too Late
Net Zero 2050: Limits global warming to 1.5°C through strict climate policies and innovation; global CO_2 emissions reach net zero around 2050. **Below 2°C:** Gradual tightening of climate policies with a 67% probability of limiting global warming to below 2°C. **Low Demand:** Significant behavioral changes — reduced energy demand — along with carbon pricing and technology reduce economic pressure to reach global net zero CO_2 by 2050. Some jurisdictions (e.g., US, EU, UK, Canada, Australia, Japan) achieve net zero for all GHGs.	**Delayed Transition:** No additional climate policies until 2030, requiring strong policies afterward to limit warming below 2°C. Limited negative emissions.	**NDCs Only:** Includes all stated targets, even if not backed by effective policies. **Current Policies:** Assumes only currently implemented policies remain, leading to high physical risks.	**Fragmented World:** Climate response is delayed and fragmented globally, resulting in high physical and transition risks. Countries with net-zero targets only achieve 80% of their goals, while others stick to current policies.

DETAIL

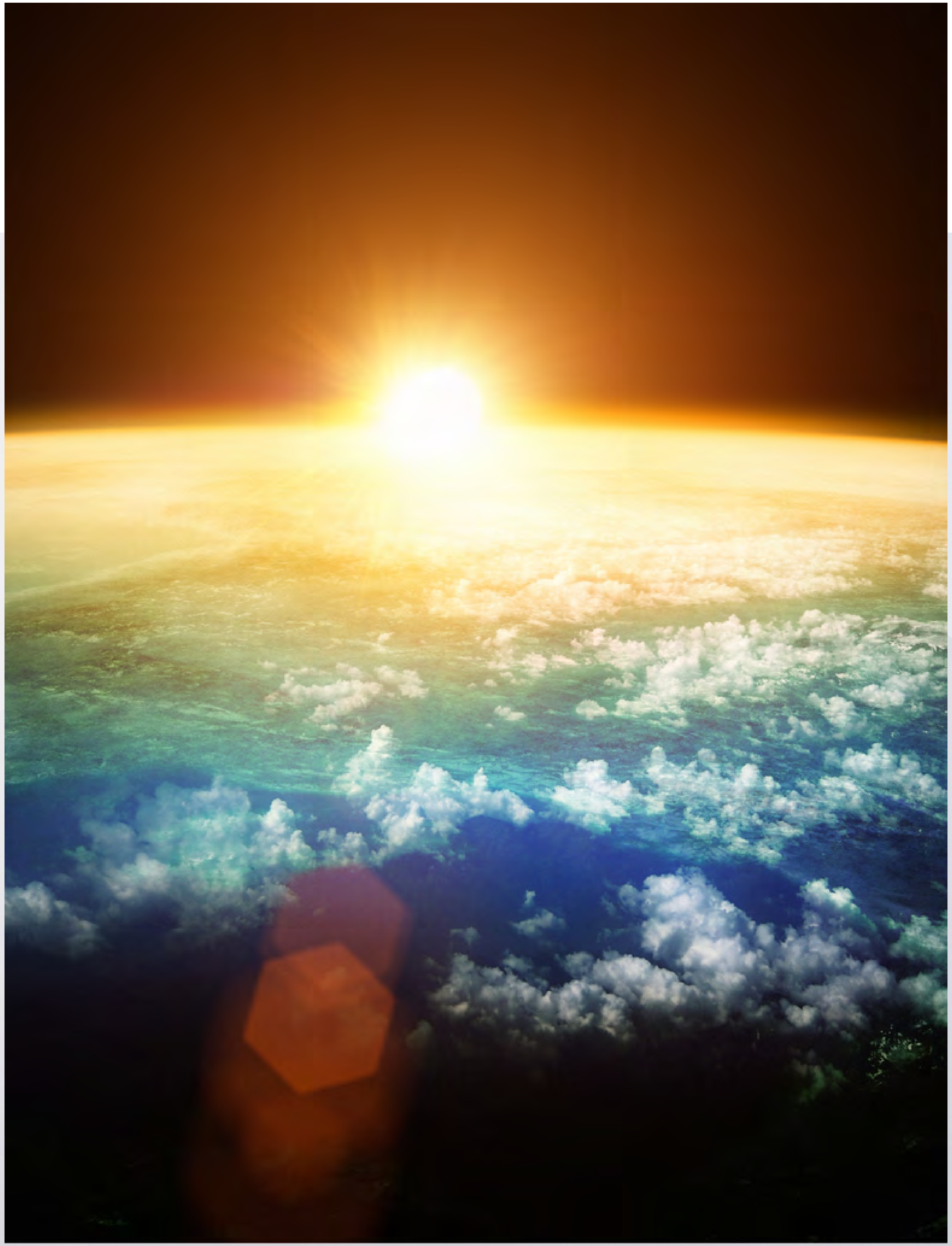
In NGFS scenarios, the primary policy mechanism driving the transition is an indirect carbon price, which: (i) represents the marginal cost of reducing carbon emissions, and; (ii) signals global climate policy ambition and effectiveness, among a range of real-world measures (e.g., carbon taxes, subsidies, environmental standards, etc.). Annexes 7 and 10 show the criticality of physical and transition risks for the NGFS scenarios.

The following figures present some variables from the NGFS scenarios.

→ GRAPH 11
NGFS SCENARIOS IN PHASE V.



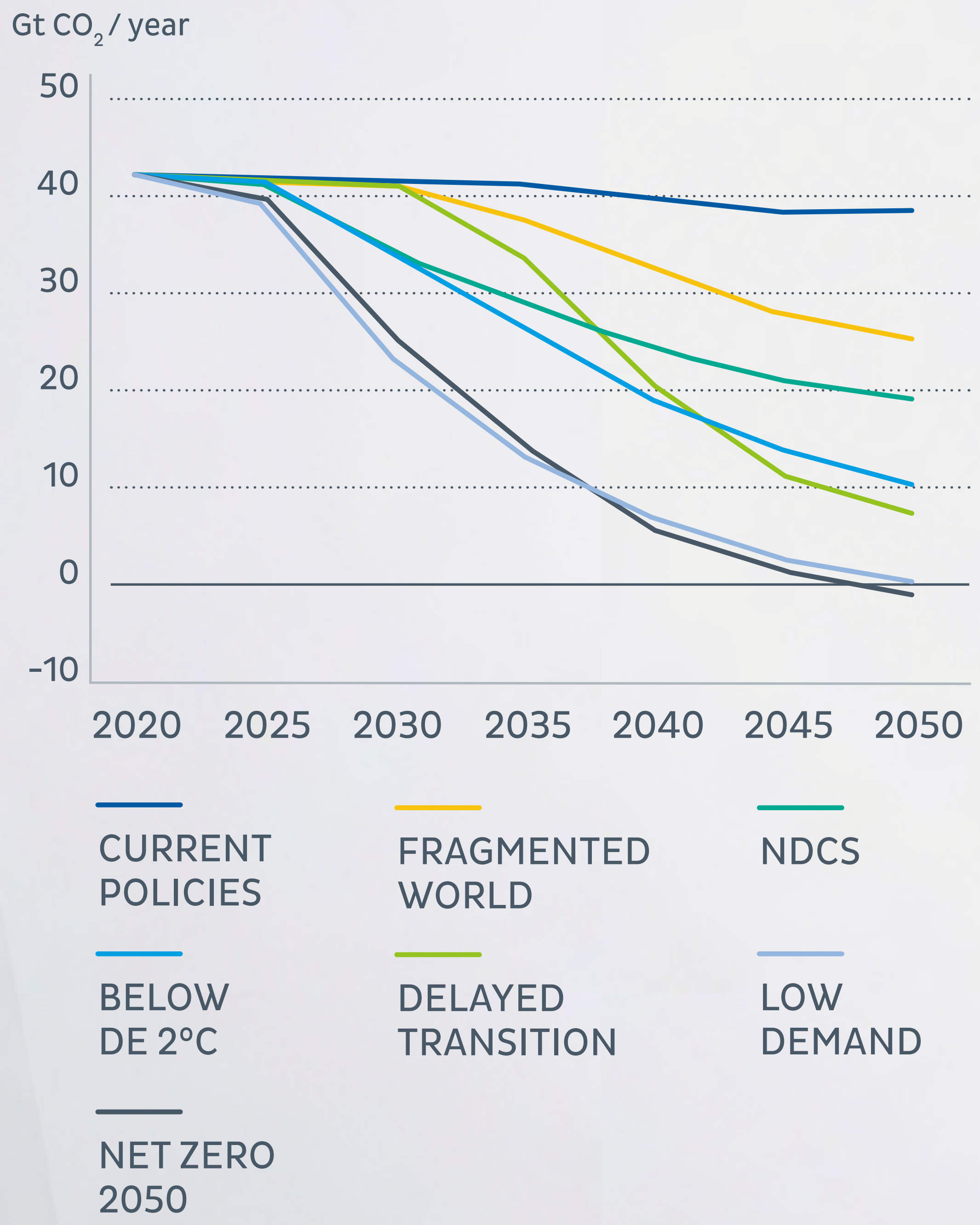
Source: Adapted from the NGFS Long-term Scenarios for Central Banks and Supervisors.



→ GRAPH 12

GLOBAL ANNUAL CO_2 EMISSION

REMIND-MAgPIE

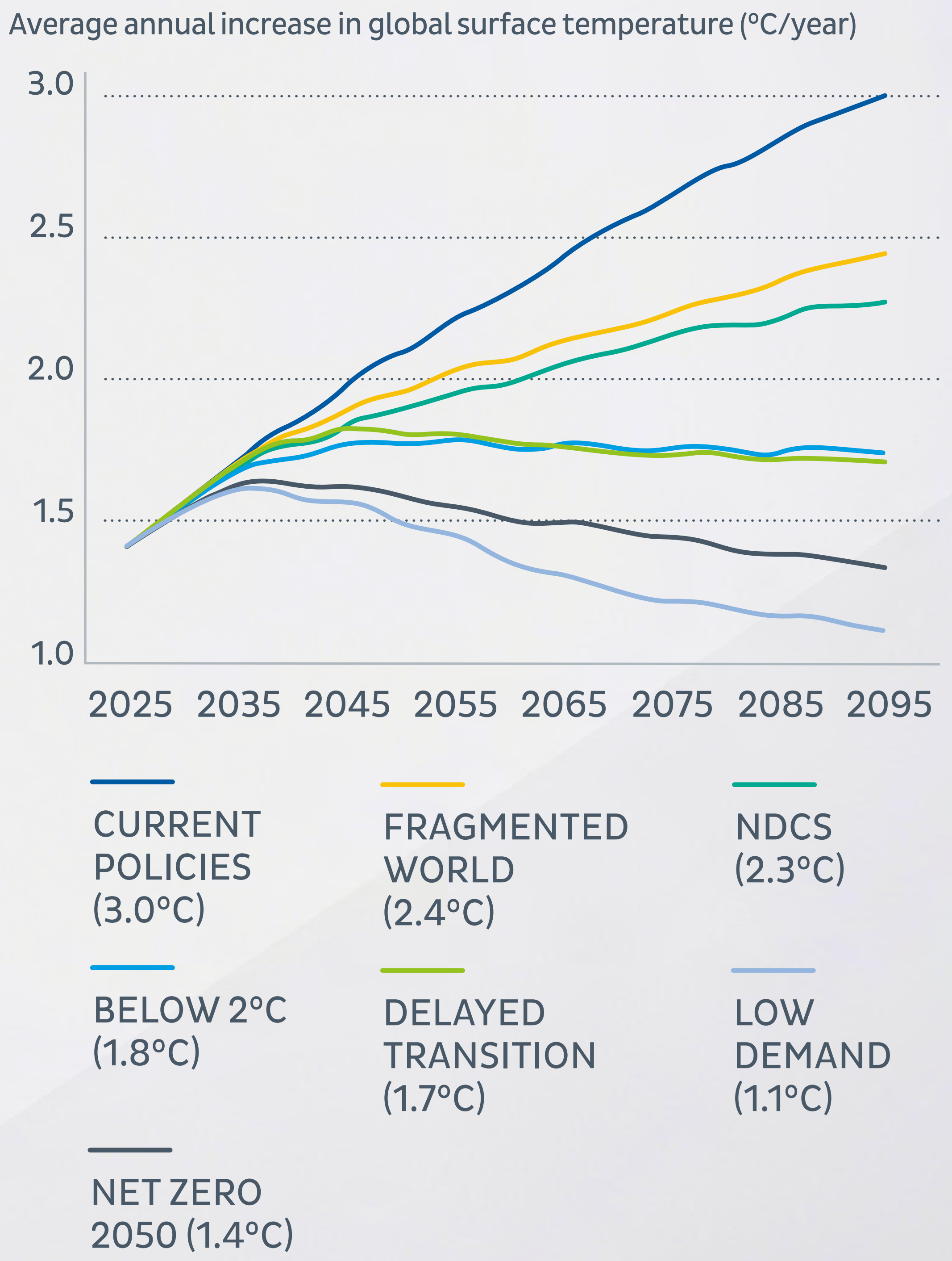


Source: NGFS IIASA Climate Scenario Database, Remind-MAgPIE model. Global aggregates mask significant differences between sectors and jurisdictions. Detailed regional and sectoral information is available on the IIASA portal. Results show end-of-century warming. Data is presented in five-year intervals.

→ GRAPH 13

TEMPERATURE TRAJECTORY BY SCENARIO

Surface Temperature Increase (AR6 GSAT, 50th Percentile), Magicc with Remind-MAgPIE Emission Inputs

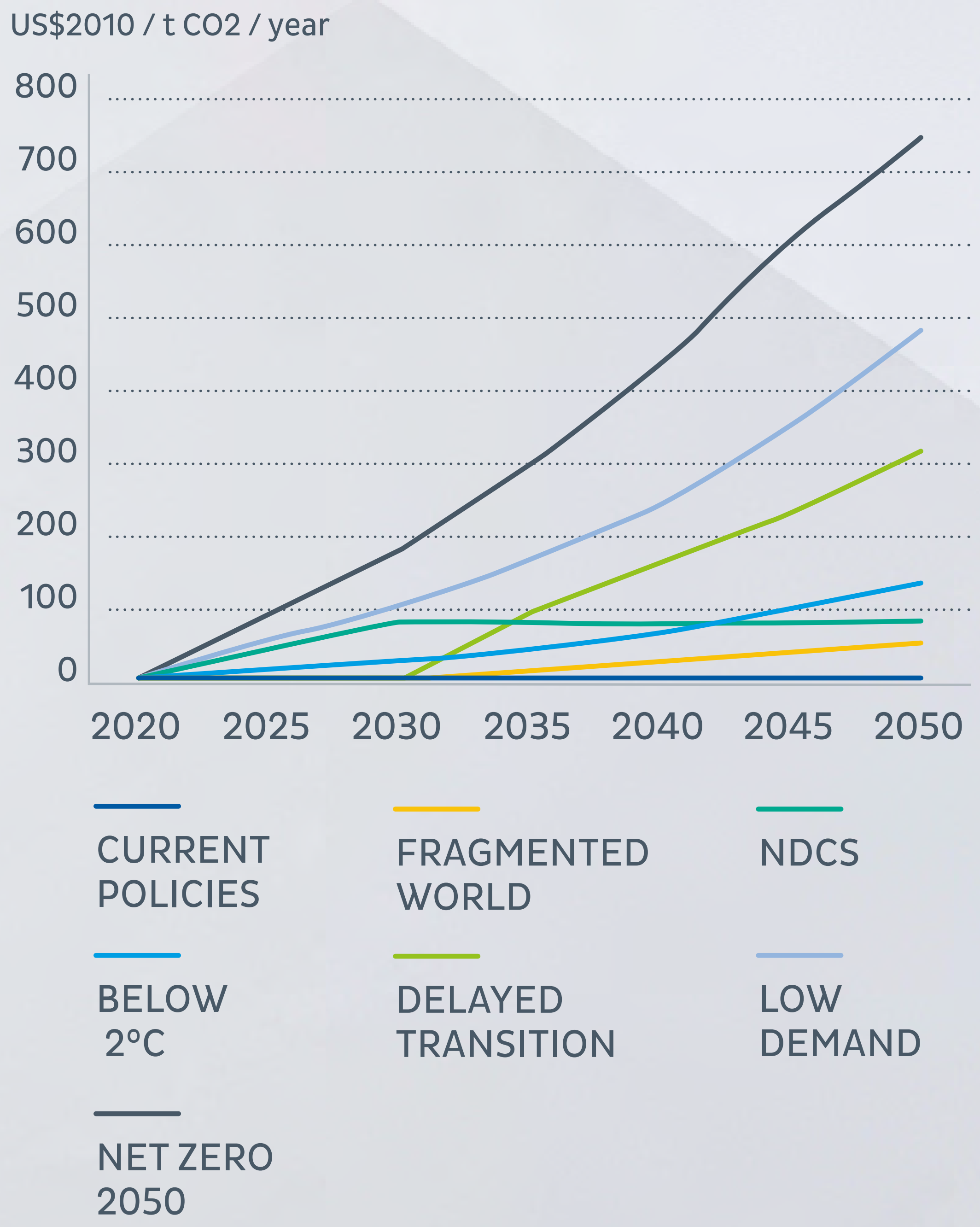


Source: NGFS IIASA Climate Scenario Database, Magicc model (with emissions inputs from Remind-MAgPIE). Magicc provides a range of temperature increases relative to pre-industrial levels. The temperature pathways shown here follow the 50th percentile.

→ GRAPH 14

GLOBAL ANNUAL CO_2 EMISSIONS

REMIND-MAgPIE



Source: NGFS IIASA Climate Scenario Database, Remind-MAgPIE model. Indirect carbon prices are weighted globally. Detailed regional and sectoral information is available on the IIASA portal. Results show end-of-century warming. Data is presented in five-year intervals.

		Physical Risks	Risk Transition			
Description	**Scenario**	**End-of-Century Average Warming (Peak)**	**Policy Response**	**Technological Change**	**Carbon Dioxide Removal(1)**	**Regional policy variation(2)**
Orderly	Low Demand	1.1 °C (1.6 °C)	Immediate	Rapid change	Medium use	Medium variation
	Net Zero 2050	1.4 °C (1.7 °C)	Immediate	Rapid change	Medium-high use	Medium variation
	Below 2 °C	1.8 °C (1.8 °C)	Immediate and smooth	Moderate change	Medium use	Low variation
Disorderly	Delayed Transition	1.7 °C (1.8 °C)	Delayed	Slow/rapid change	Medium use	High variation
Hot House World	NDCs	2.3 °C (2.3 °C)	NDCs	Slow change	Low use	Medium variation
	Current Policies	3.0 °C (3.0 °C)	None – current policies	Slow change	Low use	Low variation
Too Little, Too Late	Fragmented World	2.4 °C (2.4 °C)	Delayed and fragmented	Slow/fragmented change	Low-medium use	High variation

The color code indicates whether the feature makes the scenario more or less severe from a macro-financial risk perspective.

Lower risk   Moderate risk   Higher risk

(1) The impact of carbon dioxide removal (CDR) on transition risk is twofold: on one hand, low levels of CDR imply an increase in transition costs, since gross emission reductions must be achieved by other means; on the other hand, a high dependence on CDR is also a risk if the technology does not become more accessible in the coming years.
(2) Risks will be greater in countries and regions with stronger policies. For example, in the Net Zero 2050 scenario, several countries and regions reach net-zero greenhouse gas (GHG) emissions by 2050, while many others still emit several Gt of CO_2 equivalent.

This assessment is based on expert judgment regarding how changes to this assumption affect the main drivers of physical and transition risks. For example, higher temperatures are correlated with greater impacts on physical assets and the economy. On the transition side, economic and financial impacts increase with: (a) strong, abrupt, or divergent policies, (b) rapid technological changes, even if indirect carbon price changes are modest;, (c) limited availability of carbon dioxide removal, meaning that the transition must be more abrupt in other parts of the economy; and (d) stronger policies in those countries or regions.

Annex 7: Transition Risk Assessment by Scenario

→ NDC SCENARIOS

NDC	Risk: Type	Risk: Description	Scenario: Transformation (100% NDC compliance) Imp.	Prob.	Level	Coordination NDC compliance (>50% to <100%) Imp.	Prob.	Level	Fragmentation (FD-) NDC compliance (>30% to <50%) Imp.	Prob.	Level	Fragmentation (FD-) NDC compliance (<30%) Imp.	Prob.	Level
*T1	Te	TR1: Global trend in the steel industry toward the use of cleaner production technologies such as EAF increases competition for scrap steel and raises its cost	High (8)	High (8)	High (64)	High (8)	Consid. (4)	High (32)	High (8)	Mod. (2)	Consid. (16)	High (8)	Low (1)	Consid. (8)
*L1/ E1	PL	TR2: Increase in operating costs due to implementation of carbon pricing in the country or higher fuel taxes.	High (8)	High (8)	High (64)	High (8)	Consid. (4)	High (32)	High (8)	Mod. (2)	Consid. (16)	High (8)	Low (1)	Consid. (8)
*Me1	Me	TR3: Increase in imports of high-GHG steel products into regional countries, as climate policies in developed nations discourage their commercialization	Mod. (2)	High (8)	Consid. (16)	Mod. (2)	Consid. (4)	Consid. (8)	Mod. (2)	Mod. (2)	Mod. (4)	Mod. (2)	Low (1)	Low (2)

High Considerable Moderate Low

Source: Own elaboration
*These are sources of transition risks that are not part of the NDCs, but rather stress scenario assumptions. Legend: L – Legislation , Me – Market, T – Technology
Note 1: The classification themes for NDCs are labeled as: E – Energy and M – Industrial processes.
Note 2: Transition risk types: PL – Political and legal, Te – Technology, Me – Market
Note 3: Risk variables: Imp. – Impact, Prob. – Probability, Consid. – Considerable and Mod. – Moderate.

→ IEA SCENARIOS

Risk		Scenario								
		Net zero emissions by 2050 (NZE)			Announced Pledges (APS)			Stated Policies (STEPS)		
Type	Description	Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level
Te	TR2: Global trend in the steel industry toward the use of cleaner production technologies, such as EAFs, would increase competition for scrap steel and its costs.	High (8)	High (8)	High (64)	High (8)	High (8)	High (64)	High (8)	Consid. (4)	High (32)
PL	TR2: Increase in operational costs due to the implementation of carbon pricing in the country or higher fuel taxes.	High (8)	High (8)	High (64)	High (8)	High (8)	High (64)	High (8)	Consid. (4)	High (32)
Me	TR3: Increase in imports of high-GHG-emission steel products into countries in the region as a result of climate change measures that discourage their commercialization in developed countries.	Mod. (2)	High (8)	Consid. (16)	Mod. (2)	High (8)	Consid. (16)	Mod. (2)	Consid. (4)	Consid. (16)

High Considerable Moderate Low

Source: Own elaboration
* These are sources of transition risks but are not part of the NDCs; rather, they are considered in a stress scenario. Their legend is: L – Legislation, Me – Market, T – Technology.
Note 1: Legend for types of transition risks: PL – Political and Legal, Te – Technology, Me – Market.
Note 2: Legend for risk-related variables: Imp. – Impact, Prob. – Probability, Consid. – Considerable, Mod. – Moderate.L – Legislation, Me – Market, T – Technology.

→ NGFS SCENARIOS

Transition Risks		Orderly									Disorderly			Greenhouse World						Too Little, Too Late		
Code	Type	Low Demand			Net Zero 2050			Below 2 °C			Delayed Transition			NDCs			Current Policies			Fragmented World		
		Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level
RT1	Technological Change	High (8)	High (8)	High (64)	High (8)	High (8)	High (64)	High (8)	Consid. (4)	High (32)	High (8)	Consid. (4)	High (32)	High (8)	Mod. (2)	Consid. (16)	High (8)	Mod. (2)	Consid. (16)	High (8)	High (8)	High (64)
RT2	Political Response	High (8)	Consid. (4)	High (32)	High (8)	Consid. (4)	High (32)	High (8)	Mod. (2)	Consid. (16)	High (8)	High (8)	High (64)	High (8)	Mod. (2)	Consid. (16)	High (8)	Mod. (2)	Consid. (16)	High (8)	High (8)	High (64)
RT3	Regional Policy Variation	Mod. (2)	High (8)	Consid. (16)	Mod. (2)	Consid. (4)	Consid. (8)	Mod. (2)	Mod. (2)	Mod. (4)	Mod. (2)	High (8)	Consid. (16)	Mod. (2)	Consid. (4)	Consid. (8)	Mod. (2)	Mod. (2)	Mod. (4)	Mod. (2)	High (8)	Consid. (16)

High Considerable Moderate Low

Source: Own elaboration
Note 1: Legend for risk-related variables: Imp. – Impact, Prob. – Probability, Consid. – Considerable, Mod. – Moderate

Annex 8: Stress Analysis of the Risk of Carbon Pricing Implementation in Peru (TR3)

The valuation of CO_2 emissions is the way in which countries and markets assign a monetary value to these emissions, requiring emitters to pay for the impact of the greenhouse gases (GHGs) they release. This measure, which encourages environmentally beneficial decisions and investments, promotes sustainable economic growth. Carbon pricing contributes to the effective reduction of GHG emissions in a flexible and cost-efficient manner for society. According to the Ministry of the Environment (Minam), in 2019, a social carbon price was proposed in Peru. This price allows the integration of the social benefits or costs associated with the reduction or increase in GHG emissions into economic evaluations. This value was set at US$ 7.17 per ton of CO_2eq (equivalent to PEN 26.89 based on the exchange rate at the end of 2024, as per the Central Reserve Bank of Peru).

In 2024, the Ministry of Economy and Finance (MEF) conducted a study titled "Analysis of Instruments for Carbon Pricing, Fiscal Schemes, and a Proposed Roadmap to Promote a Low-Carbon Transition in Specific Sectors in Peru". The aim was to assess existing instruments for determining a carbon price in Peru and to identify alternatives for designing and implementing a roadmap to support the country's transition toward a low-carbon economy. The study resulted in the proposal to evaluate a mixed policy involving three carbon pricing instruments (Carbon tax, Voluntary carbon Market, Payments for ecosystem services) These instruments would be applicable to activities within the sectors of land use, land-use change and forestry (LULUCF), energy, transportation, and industry.

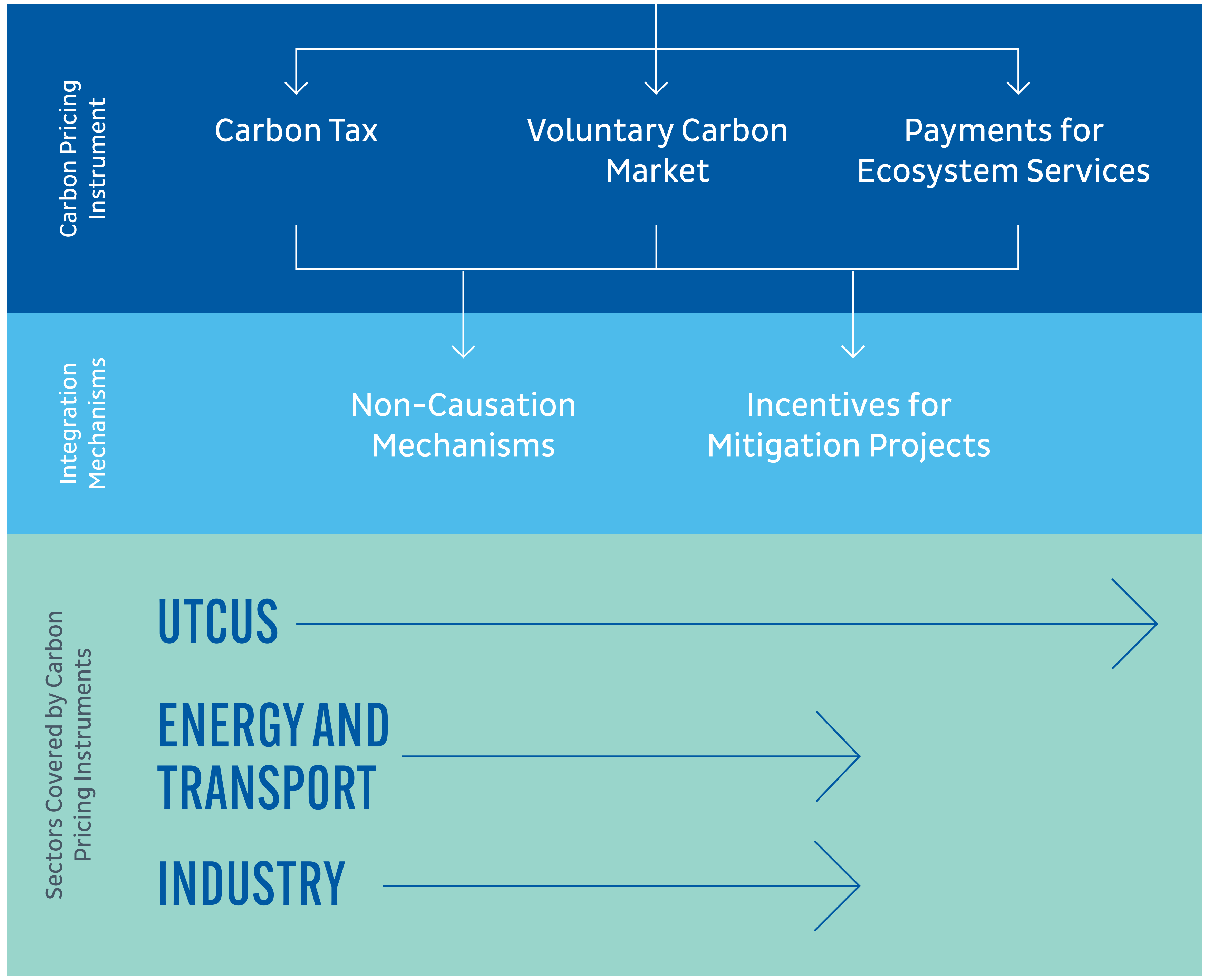
→ TABLE 8

STRESS ANALYSIS OF RT3 RISK – INCREASE IN OPERATING COSTS DUE TO CARBON PRICING IMPLEMENTATION IN PERU

Scenario	Carbon Footprint (tCO_2e)	Scope 1 Price (PEN/tCO_2e)	Amount (PEN/year)	Prob.	Impact	Criticality
Current Scenario (2024): no carbon price established in Peru (PEN 0.00/tCO_2e)	240,668	0	0	NA	NA	NA
Stress Scenario (2028): carbon pricing applied using Minam's proposal at 2024 exchange rate (PEN 26.89/tCO_2e)	240,668	26.89	6,471,563	High (8)	High (8)	High

→ GRAPH 15
PROPOSED MIXED POLICY

Transition to a Low-Carbon Economy in Peru



Source: Adapted from the study "Analysis of Instruments for Carbon Pricing, Fiscal Schemes, and a Proposed Road-map to Promote a Low-Carbon Transition in Specific Sectors in Peru" by the MEF.

Annex 9: Methodologies and Scenarios for Assessing Physical Risks

METHODOLOGY: REPRESENTATIVE CONCENTRATION PATHWAYS (RCPS)

For our climate analysis, we use the relevant physical scenarios for organizations exposed to acute or chronic climate changes, such as those with long-lived fixed assets, operations in climate-sensitive regions, and supply chains exposed to these risks.

To this end, we rely on RCP scenarios, which are the latest generation of scenarios provided by the Intergovernmental Panel on Climate Change (IPCC). These scenarios describe the potential climate impacts of different levels of greenhouse gas (GHG) emissions and the resulting trajectories of atmospheric GHG concentrations.

SCENARIOS

Radiative forcing is a crucial indicator in this analysis, which measures the net change in radiative energy flux towards Earth due to changes in the composition of the atmosphere. The RCP scenarios characterize different levels of radiative forcing, from very low to very high, with codes like RCP 2.6, RCP 4.5, RCP 6.0, and RCP 8.5.

RCP 2.6 → A low-emission scenario with efforts to limit global warming.

RCP 4.5 → Intermediate scenarios.

RCP 6.0 → Intermediate scenarios.

RCP 8.5 A high-emission scenario associated with a significant increase in global temperature.

DETAILS

To assess potential changes in variables such as precipitation, temperature, evapotranspiration, and surface runoff, we use projections from two CMIP5 climate models and two RCP emission scenarios, RCP 4.5 and RCP 8.5. These analyses, covering the period 2035-2065, focus on 2050.

Similarly, based on our analysis, we refer to the 2015 Senamhi report on water availability scenarios in Peru within the context of climate change. We used historical data from meteorological and hydrological stations to project possible changes in climate variables and water availability up to 2050, focusing on the Hydrological Region Pacific 3, where our steel complex is located. The results show different nuances across each hydrological region, with significant changes in variables like precipitation, temperature, and surface runoff.[7]

RCP 4.5

(Radiative Concentration Pathway 4.5)
This scenario represents a future where GHG emissions stabilize by 2100, leading to a global temperature increase of approximately 2.4°C compared to pre-industrial levels.

For Peru, this would imply significant climate changes, such as a rise in average temperature and potential changes in rainfall patterns. These changes could affect water resource availability and biodiversity, as well as increase the risk of extreme events like droughts and floods.

RCP 8.5

(Radiative Concentration Pathway 8.5)
This scenario represents a future where GHG emissions continue to rise without significant mitigation measures, leading to a global temperature increase of approximately 4.9°C compared to pre-industrial levels.

For Peru, this would imply more drastic climate changes, with severe impacts on ecosystems, agriculture, water availability, and infrastructure. An increase in the frequency and intensity of extreme weather events, such as prolonged droughts and torrential rains, is expected.

MAIN EXPECTED CHANGES IN THE PACIFIC HYDROLOGICAL REGION

Changes in Maximum Temperature Expected by 2050

RCP 4.5
In the Pacific 1 hydrological region, the largest changes in maximum temperature are expected, with an annual average increase of 2.7°C under the RCP 4.5 scenario.

On the other hand, the smallest thermal warming projection would be observed in the Pacific 6 region, with an average annual increase in maximum temperature of 1.5°C under the same RCP 4.5 scenario.

RCP 8.5
In the Pacific 1 region, the largest changes in maximum temperature are expected, with an annual average increase of 2.8°C under the RCP 8.5 scenario.

On the other hand, the smallest thermal warming projection would be observed in the Pacific 6 region, with an average annual increase in maximum temperature of 1.6°C under the same RCP 8.5 scenario.

Changes in Minimum Temperature Expected by 2050

RCP 4.5
In the Pacific 1 hydrological region, the largest changes in minimum temperature are expected, with an annual average increase of 2.9°C.

On the other hand, the smallest warming projection would be observed in the Pacific 5 region, with an average annual increase in minimum temperature of 1.5°C.

RCP 8.5
In the Pacific 1 region, the largest changes in minimum temperature are expected, with an annual average increase of 2.8°C.

On the other hand, the smallest warming projection would be observed in the Pacific 5 region, with an average annual increase in minimum temperature of 2°C.

Changes in Precipitation Expected (%) by 2050

RCP 4.5
In the Pacific 1 and Pacific 6 regions, increases of 0.2% and 9.8%, respectively, are projected.

In the Pacific 2, **Pacific 3**, Pacific 4, and Pacific 5 regions, a decrease in annual precipitation of -1.3%, **-5.5%**, -3.4%, and -1.3%, respectively, is projected.

RCP 8.5
In the Pacific 2, **Pacific 3**, Pacific 4, and Pacific 5 regions, increases in precipitation are projected: 2.4%, **0.4%**, 5.3%, 6.8%, and 24.2%, respectively; in the Pacific 1 region, a decrease in annual precipitation of -4.8% is projected.

Changes in Evapotranspiration Expected (%) by 2050

RCP 4.5
Projected changes in annual evapotranspiration indicate increases ranging from 1.9% to 8.0%, in the Pacific 6 and Pacific 1 regions, respectively, according to the RCP 4.5 emission scenario.

RCP 8.5
In the RCP 8.5 scenario, the increases are of a higher magnitude, ranging from 3.9% to 11% as an annual average for these same regions.

In conclusion, for 2050, lower water availability is expected, except in the Pacific 6 hydrological region, where an increase is expected. The most critical scarcity conditions are anticipated in the Pacific 1 and Pacific 3 regions, with reductions of 48% and 42%, respectively, in annual water availability, which would affect several river basins such as Tambo, Moquegua, Sama, Locumba, Caplina, Topará, San Juan, Pisco, Ica, Acarí, and Yauca. Meanwhile, in the basins of the Pacific 6 region, such as Tumbes, Chira, Piura, and Cascajal, a water availability increase of up to 59% is expected under the worst condition.

Additionally, we refer to the document "Guidelines for Climate Analysis and Determining Climate Change Hazards" published by Senamhi through Technical Note N° 001-2019-/SENAMHI/DMA, which considers the following consequences due to climate variability:

- Changes due to Climate Averages: Occurrence of floods, coastal erosion, coastal flooding, decrease in groundwater due to increased evapotranspiration, changes in streamflow, and changes in the water table.
- Changes due to Climate Variability: Presence of pests and vectors, dry spells and droughts, increased occurrence of avalanches, floods, increased streamflow, and soil and groundwater salinization.

FOR 2050, LOWER WATER AVAILABILITY IS EXPECTED, EXCEPT IN THE PACIFIC 6 REGION, WHERE AN INCREASE IS EXPECTED

Annex 10: Physical Risk Assessment for NGFS Scenarios

Physical Risks		Ordered									Disordered			Greenhouse World						Too Little – Too Late		
		Low Demand			Net Zero 2050			Below 2 °C			Delayed Transition			NDCs			Current Policies			Fragmented World		
Code	Type	Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level	Imp.	Prob.	Level
RF1	Chronic	High (8)	Low (1)	Consid. (8)	High (8)	Low (1)	Consid. (8)	High (8)	Mod. (2)	Consid. (16)	High (8)	Mod. (2)	Consid. (16)	High (8)	Consid. (4)	High (32)	High (8)	Consid. (4)	High (32)	High (8)	Consid. (4)	High (32)
RF2	Acute	Consid. (4)	Low (1)	Mod. (4)	Consid. (4)	Low (1)	Mod. (4)	Consid. (4)	Mod. (2)	Consid. (8)	Consid. (4)	Mod. (2)	Consid. (8)	Consid. (4)	Consid. (4)	Consid. (16)	Consid. (4)	Consid. (4)	Consid. (16)	Consid. (4)	Consid. (4)	Consid. (16)
RF3	Acute	Consid. (4)	Low (1)	Mod. (4)	Consid. (4)	Low (1)	Mod. (4)	Consid. (4)	Mod. (2)	Consid. (8)	Consid. (4)	Mod. (2)	Consid. (8)	Consid. (4)	Consid. (4)	Consid. (16)	Consid. (4)	Consid. (4)	Consid. (16)	Consid. (4)	Consid. (4)	Consid. (16)
RF4	Chronic	Consid. (4)	Low (1)	Mod. (4)	Consid. (4)	Low (1)	Mod. (4)	Consid. (4)	Mod. (2)	Consid. (8)	Consid. (4)	Mod. (2)	Consid. (8)	Consid. (4)	Consid. (4)	Consid. (16)	Consid. (4)	Consid. (4)	Consid. (16)	Consid. (4)	Consid. (4)	Consid. (16)

High Considerable Moderate Low

Source: Own elaboration
Note 1: The legend for risk-related variables are: Imp. – Impact, Prob. – Probability, Consid. – Considerable, Mod. – Moderate.

Annex 11: Stress Analysis on Groundwater Scarcity in the area where the Steelmaking Complex is Located (Physical Risk 1)

According to the previously mentioned Senamhi analysis, it is estimated that one of the main effects of climate change will be a reduction in water availability in several regions of the country. The most critical water scarcity conditions are expected to occur in the Pacific 1 and Pacific 3 hydrological regions, with a decrease of 48% and 42%, respectively, in annual water availability. Since our main steelmaking and rolling operations are in Pisco, located in the Pacific 3 region, this situation is directly relevant to us.

Although this risk is expected to intensify in the future, we have already started to experience the effects of reduced freshwater availability from the groundwater aquifers we rely on for our operations. This situation increases our dependence on desalinated water, which has a much higher tariff than conventional water, resulting in higher operational costs.

Base Scenario: 2024	
Regular Water Tariff (ANA) (for underexploited aquifers):	w0.0961 soles/m³
Regular Water Tariff (ANA) (for overexploited aquifers):	0.2883 soles/m³
Desalinated Water Tariff	6.58008 soles/m³
Consumption of water from underexploited aquifers (millions of m³)	0.38 (26.4%)
Consumption of water from overexploited aquifers (millions of m³)	0.36 (24.6%)
Consumption of desalinated water (millions of m³)	**0.70 (48.5%)**
Total consumption in 2024 (millions of m³)	1.44
Total cost of water consumption in 2024	**S/ 4.75 million**

Annual cost increase
S/ 2.91 million

Stress Scenario: By 2028, groundwater scarcity increases the need for desalinated water to 80%	
Regular Water Tariff (ANA) (for balanced aquifers):	0.0961 soles/m³
Regular Water Tariff (ANA) (for overexploited aquifers):	0.2883 soles/m³
Desalinated Water Tariff	6.58008soles/m³
Consumption of water from underexploited aquifers (millions of m³)	0.14443 (20%)
Consumption of water from overexploited aquifers (millions of m³)	0.14443 (20%)
Consumption of desalinated water (millions of m³)	**1.155438 (80%)**
Total consumption in 2028 (millions of m³)	1.444298
Total cost of water consumption in 2028	**S/ 7.66 million**
Probability	**RCP 4.5:** considerable **RCP 8.5:** High
Impact	**RCP 4.5:** High **RCP 8.5:** High
Criticality	**RCP 4.5:** High **RCP 8.5:** High

Annex 12: Physical Risk Analysis by Zone

RISK ANALYSIS IN THE NORTHERN ZONE

Risk Code	DC Trujillo	SP Trujillo	DC Piura	Impact/Explanation
RF1	High	Does not apply	High	The risk is inherent to the Pisco steel complex but may primarily affect the distribution centers (DC), even potentially impacting the operations of the Trujillo and Piura DC in the worst-case scenario. For the Trujillo stockyard, it does not apply as its operations are upstream from where the risk would materialize.
RF2	Consid.	Does not apply	Consid.	The risk is inherent to the Pisco steel complex but may primarily affect the distribution centers (DC), even possibly impacting the operations of the Trujillo and Piura DC in the worst-case scenario. This could lead to the Trujillo and Piura DC becoming out of supply, causing the loss of customers in the northern region of the country. For the Trujillo stockyard, it does not apply as its operations are upstream from where the risk would materialize.
RF3	High	Does not apply	High	This risk may occur due to landslides, collapses, and bridge failures, which would cause shortages in the northern region of the country, resulting in sales losses for the organization.
RF4	Consid.	Consid.	Consid.	This risk arises because we have finished products and equipment at the Trujillo and Piura DC, and in the Trujillo stockyard, we have our electric handling crane. Losses could exceed S/ 0.6 million per year.

High Considerable Moderate Low

RISK ANALYSIS FOR THE CENTRAL ZONE (LIMA)

Risk Code	Site						Impact/Explanation
	Administrative offices	Pipe distribution center (DC) – Trapiche	Steel Center – Lima	Pipe plant – Cajamarquilla	Storage Plant – Huachipa	DC and Pipe Plant – Lurín	
RF1	Does not apply	Does not apply	Does not apply	Does not apply	Does not apply	Does not apply	Does not apply
RF2	Does not apply	Considerable*	Does not apply	Does not apply	Does not apply	Does not apply	*This risk applies to potential damages to the Pipe distribution center (DC) – Trapiche and power interruptions due to its proximity to the Chillón River (0.92 km).
RF3	Does not apply	High	High	High	Does not apply	High	This risk may occur due to landslides, collapses, and bridge failures, which would cause shortages of raw materials and finished products between these sites, leading to sales losses for the organization.
RF4	Moderate	Considerable*	Considerable*	High	High	High	This risk arises because we have finished products, and in the Huachipa stockyard, we have our electric handling crane; losses could range from S/ 0.6 million to S/ 2.5 million per year. For the administrative offices, the impacts are minimal as we do not have equipment or infrastructure there. Additionally, the sites located in Cajamarquilla - Huachipa are more vulnerable to floods and mudslides because of the terrain, which is considered a ravine, and the overflow of the Huaycoloro River.

High Considerable Moderate Low

RISK ANALYSIS IN THE CALLAO ZONE

Risk Code	DC - Callao	Nail plant - Callao	Storage Plant-Oquendo	Impact/Explanation
RF1	High	High	Does not apply	The risk is inherent to the Pisco steel complex, but it may mainly affect the DC. In the case of the Oquendo stockyard, it does not apply, as its operations are upstream from where the risk would materialize.
RF2	High	High	Does not apply	The risk is inherent to the Pisco steel complex but will mainly affect the DCs. For DC Callao, it would relate to the supply of finished products, and for the Nail Plant Callao, it concerns an increase in the cost of raw material (wire rod).
RF3	High	High	Does not apply	This risk could occur due to landslides, collapses, or bridge failures, which would cause a supply shortage to the north of the country, leading to sales losses for the organization.
RF4	High	High	High	This risk arises because we have finished products, and in the Oquendo stockyard, we have our electric handling crane; losses could reach up to S/ 2.5 million per year. Additionally, the stockyard is the most vulnerable site in the central zone due to its proximity to the sea (0.7 km).

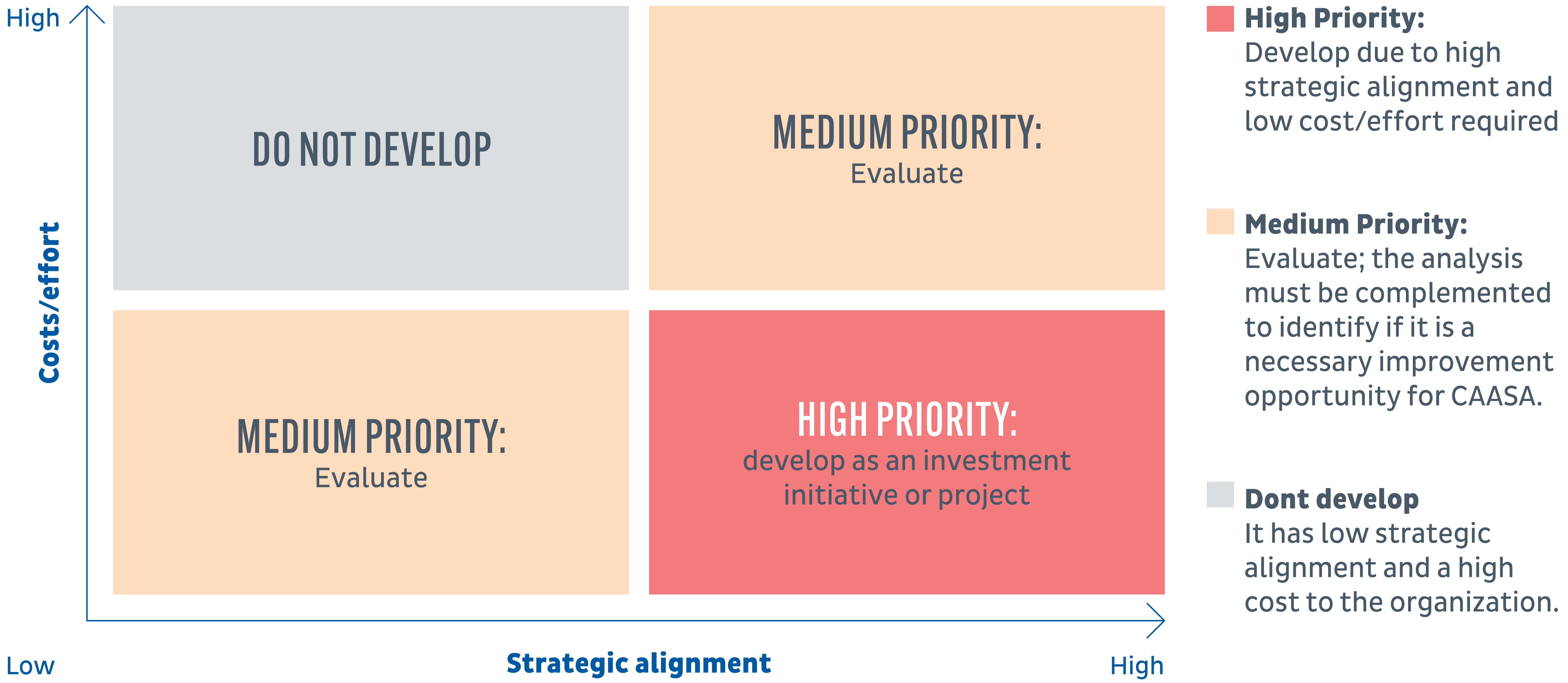
High Considerable Moderate Low

RISK ANALYSIS IN THE CENTRAL ZONE (LIMA)

Risk code	Steel complex – Pisco	DC Arequipa	Impact/Explanation
RF1	High	High	Due to the water stress zone where the steel complex is located, it is necessary to identify other water sources or other water-saving and efficient usage projects. This would involve additional production costs, which would be passed on to the sale price at the DCs, such as DC Arequipa.
RF2	High	High	The steel complex is supplied with electricity through the Independencia transmission line. This line is located near the Pisco River, which increases its flow during the summer months (January-March) due to rains from the mountains. This could affect the towers closest to the line and leave the steel complex without electricity for more than two days. This risk primarily impacts the DCs, such as DC Arequipa.
RF3	High	High	This risk could arise due to landslides, collapses, or bridge failures, which would cause a supply shortage to the south of the country, leading to sales losses for the organization.
RF4	High	High	In the Pisco province, rainfall is unlikely; however, if it were to occur frequently, it could damage much of the infrastructure, equipment, and products that are not under cover. The DC is also at risk due to being in a very rainy area.

High Considerable Moderate Low

Annex 13: Response to the Opportunity Analysis (GIRO Methodology)



Annex 14: Opportunity Evaluation for Each NDC Scenario

NDC	Opportunity		Scenario: Transformation (Tr.) Compliance with NDCs at 100%			Coordination (Coor.) Compliance with NDCs between <100% - 50%			Fragmentation (FD-) Compliance with NDCs between <50% - 30%			Fragmentation (FD+) Compliance with NDCs <30%		
	Type	Description	Cost/ Effort	Strategic Alignment	Level	Cost/ Effort	Strategic Alignment	Level	Cost/ Effort	Strategic Alignment	Level	Cost/ Effort	Strategic Alignment	Level
E9	FE	OP1: Capitalize on our low carbon footprint to take advantage of international green financing	Low	High	High priority	Low	High	High priority	Low	High	High priority	Low	High	High priority
*Me	PyS/ Me	OP2: Enter new markets through competitive advantage with lower-emission products	Low	High	High priority	Low	High	High priority	High	High	Medium priority	High	High	Medium priority
E6	PyS	OP3-A: Participate in the project with CAASA's services or products, helping our clients receive sustainability construction-related bonds.	High	High	High priority	High	High	High priority	Low	High	High priority	Low	Low	Medium priority
E7	PyS	OP3-B: Participate in the Complementary Corridors Project of Lima's Integrated Transport System with CAASA's services or products.	Low	High	High priority	Low	High	High priority	Low	High	High priority	Low	Low	Medium priority
E8	PyS	OP3-C: Participate in the Lima and Callao Metro Lines 1 and 2 Project with CAASA services or products.	Low	High	High priority	Low	High	High priority	Low	High	High priority	Low	Low	Medium priority

NDC	Opportunity – Type	Opportunity – Description	Transformation (Tr.) Compliance with NDCs at 100% – Cost/ Effort	Strategic Alignment	Level	Coordination (Coor.) Compliance with NDCs between <100% - 50% – Cost/ Effort	Strategic Alignment	Level	Fragmentation (FD-) Compliance with NDCs between <50% - 30% – Cost/ Effort	Strategic Alignment	Level	Fragmentation (FD+) Compliance with NDCs <30% – Cost/ Effort	Strategic Alignment	Level
E13	PyS	OP3-D: Participate in the Trasandino Tunnel Project with CAASA's services or products	Low	High	High priority	Low	High	High priority	Low	High	High priority	Low	Low	Medium priority
E14	PyS	OP3-E: Participate in the Railway Transport Service Improvement Project on the Tacna–Arica route with CAASA's services or products.	Low	High	High priority	Low	High	High priority	Low	High	High priority	Low	Low	Medium priority
E15	PyS	OP3-F: Participate in the Comprehensive Rehabilitation Project of the Huancayo - Huancavelica Railway with CAASA's services or products.	Low	High	High priority	Low	High	High priority	Low	High	High priority	Low	Low	Medium priority
E4	ER/ FE	OP4: Co-processing in the steel complex	High	High	High priority	High	High	High priority	High	High	High priority	High	Low	Medium priority
M1	ER/ M	OP5: Valorize steel slag for use in construction as an alternative to aggregate materials, and sell steel slag to cement factories so they can meet their NDC targets.	High	High	Medium priority	High	High	Medium priority	Low	Low	Medium priority	Low	Low	Medium priority

Source: Own elaboration
* These are sources for the opportunities, but they are not part of the NDCs, rather in a scenario related to climate change actions. Their legend is: Me – Market and T – Technology.
Note 1: The classification themes used for the NDCs have the following legend: E – Energy and M – Industrial Processes.
Note 2: The legend for the types of opportunities is as follows: ER - Resource Efficiency, FE - Energy Source, PyS - Products and Services, M – Markets, and R – Resilience.
Note 3: The legend for the variables related to the opportunity is: Priorid.: Priority / Alineam. estratég.: Strategic alignment / Desarro.: Develop

Annex 15: Incentives for Climate Action

Through our Strategic Management Cycle (CGE for its acronym in Spanish), we define, deploy, and monitor CAASA's and its subsidiaries' Strategic Plan annually. This process includes environmental analysis, identifying risks and strategic opportunities, as well as generating clarity and organizational alignment around the defined goals, in accordance with good corporate governance practices.

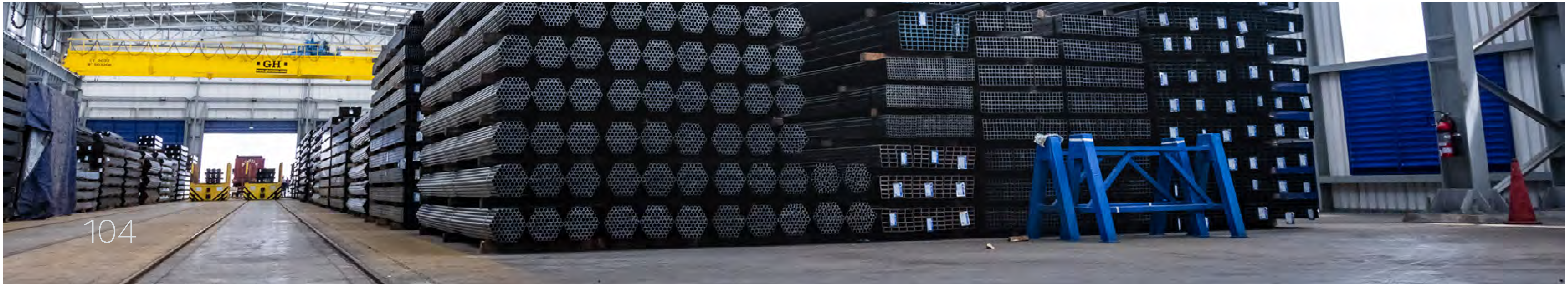
As part of the CGE, we deploy corporate strategic guidelines at all organizational levels, ensuring that functional plans, area plans, and individual objectives align with the Corporate Strategy. This allows us to ensure that our team has the appropriate incentives to contribute to achieving strategic goals and effectively manage the risks that could compromise them.

Climate action, one of the key pillars of our Sustainability Strategy, is fully integrated into this process. Through this cycle, we ensure that the definition of strategic objectives translates into individual objectives, including goals related to natural resource efficiency, emissions reduction, and circularity, all of which are key elements of our long-term strategy.

The management team has a set of annual objectives, the achievement of which is linked to a financial bonus, which combines:

- **Common goals**, such as corporate financial results, team development, among others. Within these, there is a specific indicator that measures the level of compliance with corporate standards for risk management.
- **Specific goals** linked to their role's functions.

To ensure the achievement of the defined objectives at the managerial level, each Manager aligns its teams with the necessary objectives for their accomplishment, following.



→ DEPLOYMENT OF OBJECTIVES BY LEVEL

C-LEVEL MANAGEMENT

The management team has financial incentives linked to achieving their strategic objectives. Furthermore, Managers that have a direct impact on the environmental management and climate action of the Company incorporate annual objectives focused on improving environmental management, generating efficiencies in the use of natural resources, reducing emissions, and promoting circularity. These objectives include, for example:

- Phase 2 - Scrap cleaning: Investment project that will contribute to CO_2 emission reduction in our steelmaking process.
- Port Manatee Non-ferrous Plant: Investment project that will contribute to better use of industrial by-products in our scrap yard in the U.S.
- Steel Plant Upgrade: Project that will contribute to energy efficiency in our Steel operations.
- Improvement in the Environmental Score - Dow Jones Sustainability Index, an indicator measuring our environmental management.

OPERATIONAL LEVEL

The objectives defined at the managerial level are deployed to employees, ensuring alignment with strategic priorities and risk management. Each employee has objectives made up of indicators, projects, and initiatives that reflect these priorities and incorporate the actions proposed for risk mitigation.

These elements are inputs for individual performance evaluation, which serves as a basis for determining salary adjustments, promotions, as well as for implementing improvement plans or, eventually, employee relocation or termination.

Annex 16: CAASA's Lobbying with Respect to the Paris Agreement

→ LATIN AMERICAN STEEL ASSOCIATION (ALACERO)

PROGRAM:
- Environmental Public Policy Committee (Copam)
- Environmental Technology Committee (Cotec)

DESCRIPTION:
Alacero is made up of more than 60 manufacturing and related companies, producing 65 million tons of steel annually, which represents 95% of steel production in Latin America. The Copam and Cotec committees address sustainability issues, such as indicator reporting, positions on CBAM, and the decarbonization of Latin American steel.

OBJECTIVE OF PARTICIPATION:
To understand the environmental standards practiced in the Latin American steel industry.

RESULTS:
- Meetings held within the Copam/Cotec framework.
- ESG indicator report for the development of Alacero's Sustainability Report for the respective year.
- Environmental benchmarking visit to one of the steel mills belonging to Alacero.

→ PRODUCE/INSTITUTO NACIONAL DE LA CALIDAD (INACAL)

PROGRAM:
- Climate Change Subcommittee

DESCRIPTION:
Inacal is the governing body and highest technical-normative authority of the National Quality System. Inacal promotes a culture that contributes to adopting quality management practices in the country and supports improving business competitiveness, state efficiency, and the protection of citizens and the environment. The Greenhouse Gas Subcommittee is responsible for proposing the inclusion of international standards related to climate change with a national interpretation, which results in Peruvian technical standards (NTP).

OBJECTIVE OF PARTICIPATION:
To participate in the adaptation of international standards so that Peruvian organizations have guidelines for climate management.

RESULTS:
- In October 2024, we participated in the development and approval of the Peruvian Guide (GP-ISO 84) Guidelines for Addressing Climate Change in Standards.
- In November 2024, we participated in the development and approval of the Peruvian Technical Standard (NTP-ISO 14091) Climate Change Adaptation: Guidelines on Vulnerability, Impacts, and Risk Assessment.

→ PRODUCE/GENERAL DIRECTORATE OF ENVIRONMENTAL AFFAIRS OF INDUSTRY

PROGRAM:
- Programa de Acuerdo de Producción Más Limpia.

DESCRIPTION:
The General Directorate of Environmental Affairs of Industry, under the Environmental Management Regulations for the Manufacturing Industry and Internal Trade (Supreme Decree No. 019-2015-PRODUCE) and its updates, promotes sustainable production and encourages organizations to set environmental goals within a Cleaner Production Agreement.

OBJECTIVE OF PARTICIPATION:
To sign the Cleaner Production Agreement and be recognized as a company aligned with the circular economy.

RESULTS:
- Meetings held with representatives from Produce.
- In December 2024, we sent the draft file titled "Expression of Interest" via email to Produce representatives for preliminary evaluation.

→ MINISTRY OF ENVIRONMENT/GENERAL DIRECTORATE OF CLIMATE CHANGE AND DESERTIFICATION (DGCCD)

PROGRAM:
- Peru Carbon Footprint Program

DESCRIPTION:
The DGCCD is the national authority responsible for fulfilling Peru's commitments under the UNFCCC and the United Nations Convention to Combat Desertification (UNCCD). Among these commitments is the Paris Agreement. It is also the responsible authority for issues related to combating desertification and drought. The Peru Carbon Footprint program is an innovative climate action tool by the Peruvian government that officially recognizes the efforts of public and private organizations in reducing their GHG emissions through emission measurement and reporting actions to reduce or neutralize them.

OBJECTIVE OF PARTICIPATION:
To report our GHG inventories and be recognized for appropriate climate management.

RESULTS:
- In June 2024, we received the first and second stars of the Peru Carbon Footprint Program for calculating and verifying the 2023 GHG emissions inventory.
- In July 2024, we received the third star for reducing the GHG emissions inventory compared to the previous year (2022).
- In December 2024, we received the fourth star for strengthening climate management with suppliers.

→ MINAM/GENERAL DIRECTORATE OF ENERGY EFFICIENCY

PROGRAM:
- Energy Management Systems Learning Network.

DESCRIPTION:
In line with the fulfillment of Peru's NDCs (in the energy sector), Minam, with the support of the Euroclima Program and in collaboration with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), plans to implement the first Energy Management Systems Learning Network in Peru to promote energy management standardization across various sectors of the country.

OBJECTIVE OF PARTICIPATION:
To implement an energy management system based on the ISO 50001 standard that allows us to reduce our carbon footprint and operational costs.

RESULTS:
- Participation in virtual and in-person workshops is ongoing.
- The Energy Management Committee was formed in November 2024.
- Consultants visited in December 2024 to identify opportunities for improvement related to energy efficiency.

→ MINISTRY OF THE ENVIRONMENT/DIRECTORATE-GENERAL FOR CLIMATE CHANGE AND DESERTIFICATION (DGCCD)

PROGRAM:
- Infocarbono.

DESCRIPTION:
Infocarbono is the national institutional framework for planning, preparing, and managing national GHG inventories through a collaborative effort with state institutions. It is one of the tools for monitoring, reporting, and verification (MRV) of mitigation measures under the Monitoring System for Adaptation and Mitigation Measures, as outlined in articles 32 and 51 of the Climate Change Framework Law. It assigns responsibilities to different state institutions to prepare the Annual Greenhouse Gas Reports (Ragei).

OBJECTIVE OF PARTICIPATION:
To report information related to the main sources of GHG emissions for the respective year, contributing to the creation of the country's Ragei.

RESULTS:
- Periodically providing information on fuel consumption, ferrous materials, and other GHG sources.
- In October 2024, we participated in the Quality Assurance Workshop for Peru's INGEI, organized by Minam with technical assistance from UNFCCC experts, who reviewed the 2020-2021 INGEI of Peru.En octubre del 2024 participamos en el Taller de Aseguramiento de la Calidad del Ingei del Perú, organizado por el Minam y con asistencia técnica de los expertos de la CMNUCC, quienes revisaron el INGEI 2020-2021 del Perú.

ACEROS AREQUIPA

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