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**The Latin
American Atlas
of Corporate
Sustainability
Initiatives**
+

Imprint

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The Latin American Atlas of Corporate Sustainability Initiatives

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Foreword FGV IIU

The sustainability narrative has manifold features and, as any modern endeavour, is peopled with conflicting and many times unclear objectives, when not with sheer sound and fury. Unfortunately, it is also sometimes goaded by interests quite unrelated to the goal of making our planet a better and more harmonious ecosystem.

An important way to minimise the above negative effects is to produce reliable and clever background information, to properly orient agents and actions.

KAS-EKLA has established itself as a sound partner for constructive and serious projects, well focussed and never forgetting the applied dimension, in the vast area of the Americas comprising countries of Latin, mostly Iberian, origin. FGV IIU enjoys nowadays a significant record of successful joint efforts with it, in a partnership we believe could be considered as a model working co-operation.

There is no doubt that the present Atlas will be very useful and serve as a building block for further developments aiming at a clear, encompassing and realistic picture of how sustainability is present in our societies, in order to better co-ordinate decisions, tasks and the always most precious and needed funds.

To FGV IIU, beyond its crystal-clear importance, this project is an additional manifestation of an enduring common pursuit with high-level international associates, for a peaceful and clever dialogue on problems that, though going beyond borders, are crucial for every single country, especially in our environmentally rich region.

Renato G. Flôres Jr.

Professor, FGV EPGE and Director, FGV IIU

Foreword EKLA-KAS

Freedom, justice and solidarity are the basic principles of the work of Konrad Adenauer Foundation (KAS). KAS is a political foundation, linked to the Christian Democratic Union of Germany (CDU) political party. Konrad Adenauer (1876-1967), co-founder of the CDU and the first German chancellor, managed to unite the social-Christian, conservative and liberal traditions. His name is synonymous with the democratic reconstruction of Germany, the consolidation of foreign policies in a transatlantic community, the vision of the European Union and the orientation of the social market economy. His intellectual legacy continues to be both a mission and a commitment to us.

For KAS, energy security and climate change have become an important piece in the structure and maintenance of a democratic social order. In this context, the **Regional Programme Energy Security and Climate Change in Latin America (EKLA)** has been designed as a platform for dialogue, in order to promote the political decision-making process on these issues. For this, we organize regional discussion forums, conferences and seminars, as well as reports, specialized publications and studies in close collaboration with the local offices and other regional programs of the Konrad Adenauer Foundation in Latin America, as well as with national and international partner organizations.

That said, it is clear our involvement in climate policy in the Latin American region and our concern with Corporate sustainability. Corporate sustainability has been understood as the ability of companies to positively influence environmental, social and economic development through their governance practices and market presence. These are extremely important practices that report the commitment of these companies to the environment.

The Atlas of Latin American Businesses Cooperative Actions for Sustainability: Corporate Institutional Innovation on Sustainability, study carried out with our partner for many years and several works FGV IJU, mapped some corporate sustainability initiatives in Latin America with the objective to identify the particularities of the region, allow comparative case studies, highlight unmet challenges, and disseminate current best practices. Good corporate governance is fundamental for the sustainable development of the region, and we hope this publication meets its objective for better climate action.

We would also like to thank everyone involved in this study and wish you all a pleasant reading!

Nicole Stopfer
Director of EKLA-KAS

Executive Summary

This Atlas offers an illustrative compendium of firm-level sustainability initiatives in four countries: Argentina, Brazil, Colombia, and Mexico. The 34 Latin American companies we analyze participate in key export sectors: Agrifood, Oil/Energy, Mining, Automotive, Vegetables, Cellulose, and Paper.

Given the very nature of their economic activities, which cause environmental and social harm and are exposed to societal pressures both locally and abroad, these (private or state-owned) companies have created and/or adopted some degree of initiatives related to deforestation, biodiversity loss, and energy transition.

We pinpoint both positive and negative features of their strategies, thus contributing to academic research and planning public policies that can and must efficiently complement corporate governance efforts.

This Atlas does more than collect and show their unique sustainability programs; it also creates guidelines for gathering information and evaluating corporations' sustainability initiatives based on lessons learned from the private governance literature. This is the reason we assess their projects regarding stakeholder engagement and supplier support.

Our combined analysis of corporate sustainability initiatives within and across countries and economic sectors with the current Nationally Determined Contributions (NDCs) submitted by the selected Latin American countries under the framework of the Paris Agreement have enriched our study.

First, we analyze to what extent the environmental action of companies is directly or indirectly encompassed in NDCs. After that, we showcase examples of companies taking a step further than their governments on circular economy approaches, greenhouse gas (GHG) emissions disclosure, climate mitigation efforts, and voluntary participation in emission trading systems (ETS).

Here we summarize our key findings based on Latin American companies' latest sustainability reports and country NDCs:



- 1.** Contrary to our initial expectations, companies rarely and/or only superficially mentioned their engagement with indigenous people, despite a few notable exceptions.

- 2.** There was virtually no mention of the payment of premium prices for suppliers that comply with sustainability requirements imposed by companies.

- 3.** The Covid-19 crisis, however, prompted some important initiatives such as deferring payments for goods/services to help smaller and more vulnerable suppliers.

- 4.** Brazil and Mexico have national programs for the GHG Protocol. We believe this correlates with a favorable comparative position, particularly visible in the case of a high number of Brazilian companies that published inventories, disclosed scope 3 emissions, and participated in a voluntary ETS simulation (Empresas Pelo Clima – EPC).

- 5.** Argentina, Brazil, and Colombia announced climate neutrality goals. Some companies have also recently made commitments to carbon neutrality and/or net-zero emissions.





- 6.** While Argentina, Colombia, and Mexico directly mention the private sector and the circular economy concept in their NDCs, Brazil is not explicit about coordination with the private sector nor uses the concept in its NDC.

- 7.** Nonetheless, most the companies analyzed hold Reduce, Recycle, and Reuse (RRR) projects in their operations. Particularly in the pulp and paper industry, Brazilian companies' activities and products have a very high degree of reuse. These companies also invest heavily in R&D and support nearby communities.

- 8.** Companies often claim in their reports their alignment with NDCs and the Paris Agreement. They also refer frequently to compliance with environmental legislation. Almost all the companies mention and/or frame policies in terms of sustainable development goals (SDGs).

- 9.** Public procurement policies were not explicitly mentioned in any selected countries' NDCs, despite being an important policy strategy that can shape and encourage sustainable business behavior.

- 10.** Key environmental challenges caused by the activities of these companies include deforestation, oil leakages, and dam collapses. Many companies have initiatives in place and use monitoring technologies. Companies are not guided solely by national legislation but increasingly by social and consumer pressures. Nonetheless, challenges persist.

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Introduction

For a few decades now, environmental, social, and other governance issues have ceased to be areas of exclusive government action. Companies, investors, and civil society organizations are reinventing themselves as political actors in sustainability. Consequently, terms like Corporate Social Responsibility (CSR), Environmental and Social Governance (ESG) criteria and sustainable supply chains have been incorporated into the jargon of the business world.

Private sustainability governance is a very fragmented and decentralized phenomenon. Alongside the proliferation of collaborative sustainability initiatives between for-profit and non-profit actors, companies create their sustainability programs. It means that corporations are not only being subjected to an increasing number of sustainability rules created by both public and private actors, but they are also creating rules of their own. Their sustainability programs affect their business activities and are often enforced on their suppliers through value chain contracting. The dispersal of authority in environmental governance and the consequent complex web of private sustainability governance arrangements often lead to confusion for consumers, producers, investors, as well as for scholars, and policymakers.

This Atlas reacts to such a multifaceted background by offering an illustrative compendium of firm-level sustainability initiatives in four countries: Argentina, Brazil, Colombia, and Mexico. Although the notion of corporate sustainability has expanded from individual self-regulatory initiatives to include transnational schemes that involve a wide range of actors, we turn back to firms' internal organizational strategies to see whether Latin American companies have incorporated lessons learned from such a multilayered scenario of private sustainability governance.

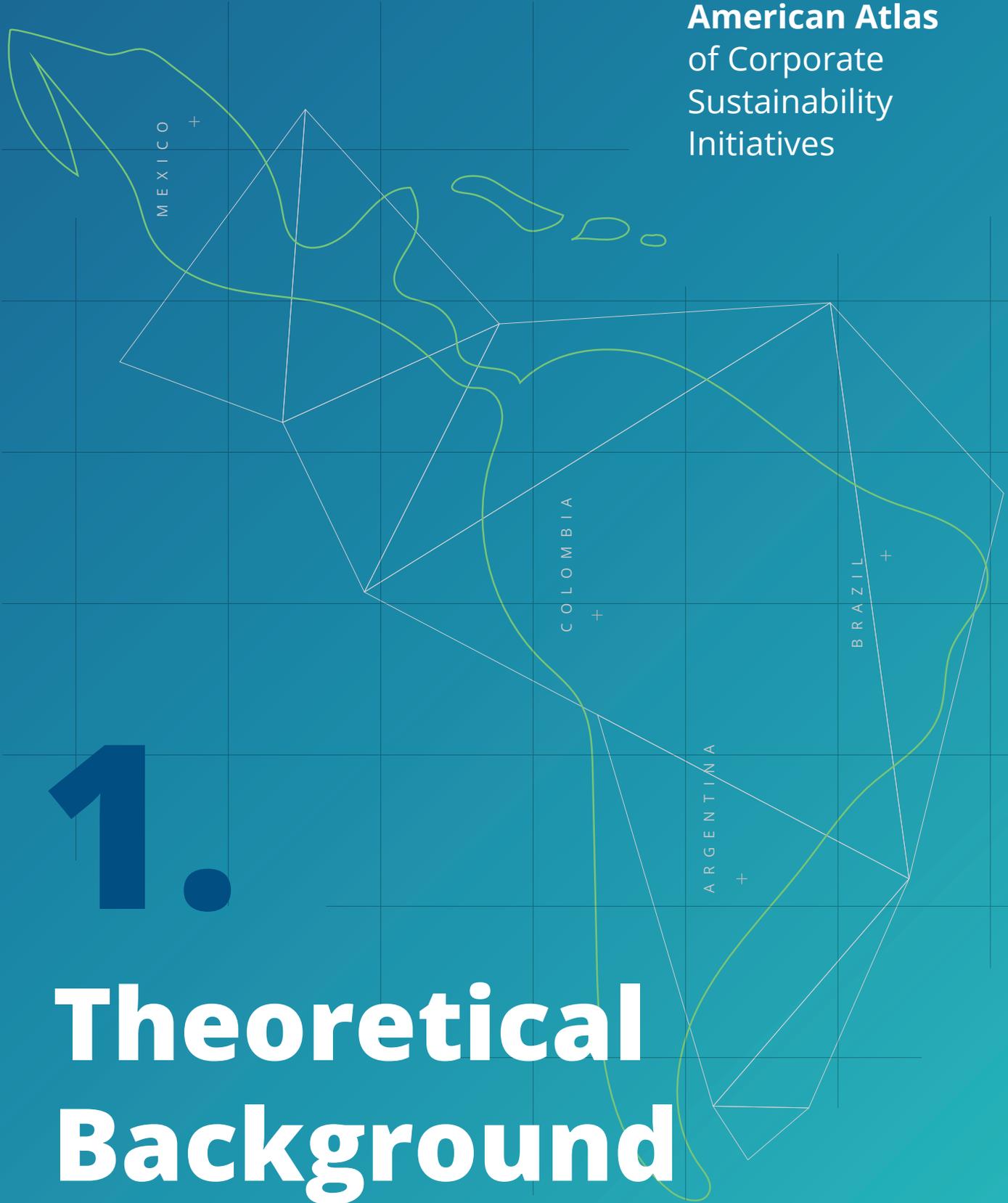
Therefore, in addition to providing an "X-ray" of sustainability initiatives developed and/or enforced by private or state-owned companies in the five main export sectors of each selected Latin American country, this Atlas also includes:

- the development of parameters to assess Latin American corporations' sustainability initiatives;
- a comparison between corporate sustainability initiatives and current Nationally Determined Contributions (NDCs) submitted by the selected Latin American countries under the framework of the Paris Agreement; and
- a reflection about companies' sustainability initiatives in the regional landscape.

Despite the growing importance of corporate sustainability as a trend in the region, little is known about this phenomenon in Latin America or its richness in providing innovative business solutions. Our objectives are to offer detailed information, analyzing and evaluating the data collected. With that, we contribute to academic research as well as to public policymaking that can and must efficiently complement corporate governance efforts.

This report is structured in six sections. It starts by offering some theoretical background, followed by a methodology section. In the third section, it delves into each of the selected companies' sustainability initiatives and then moves on to present a national environmental profile of each country. In section five, it presents our findings, highlighting companies' best practices and shortcomings. In conclusion, we analyze key environmental challenges and provide ideas for future research. ■

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1.

**Theoretical
Background**



Over the last few decades, the growing participation of private actors in social and environmental governance has sparked a large amount of scientific research. Political science, public policy, law, economic sociology, geography, development studies, and business ethics have all looked into private sustainability governance (Grabs et al. 2021).

The phenomenon of private (sustainability) governance is also investigated under a variety of names and concepts, such as non-state-centric and market-based governance initiatives (Cashore 2002, Bäckstrand 2008, Abbott & Snidal 2009, Auld et al. 2009), private authority (Cutler et al. 1999, Hall & Biersteker 2002, Buthe 2004, Green 2014), private regulation (Bartley 2007, Vogel 2008, Mayer & Gereffi 2010), private politics (Büthe 2010a, b, Büthe & Mattli 2011), and private contracting (Vandenbergh 2007, 2013).

According to experts, several factors have contributed to the emergence of private sustainability governance. These factors include increasing consumer awareness, brand disasters, reputational risks, investor pressures, and states' inability to regulate and enforce sustainability regulation (Vandenbergh 2007, Green 2014, Vandenbergh & Gilligan 2017, Bartley 2018a, b).

Opinions about private governance arrangements vary widely. At the one end of the spectrum are those who highlight private ventures' unbureaucratic and market-based transformative capacity. These include the potential to fill the Paris Gap and green supply chains (Vandenbergh & Gilligan 2017) while simultaneously increasing efficiency, improving production practices, granting competitive advantages for complying producers, and offering opportunities for social and environmental upgrading (Liu 2009, Thorstensen et al., 2015, Khattak & Stringer 2016). However, critics point to several issues, including greenwashing (Hartmann 2018), the unequal distribution of costs and benefits (Mutersbaugh 2005, Ponte 2019), the exclusion of small players (Ouma 2010), disguised protectionism with particularly adverse effects for developing countries (Thorstensen & Vieira 2016), and poor environmental and social results.

Aware of these challenges, many have advocated for greater accountability and democratic participation in private governance arrangements. Others have argued for reconsidering the traditional compliance model of private governance, i.e., the model by which suppliers are rewarded or punished for their performance (Locke et al. 2009, Locke 2013). Furthermore, others have claimed that, since market-based initiatives are still based on consumption-driven growth, private governance only delivers intra-systemic solutions that validate rather than face fundamental flaws of the prevailing capitalist system.

Despite these divergent perspectives, the private sector in sustainability governance is a growing reality, and we need to understand its shapes and forms in Latin America. Private sustainability governance initiatives include the direct and indirect participation of companies, non-governmental organizations (NGOs), and even states in governing the sustainability of products and production processes. For example, Abbott and Snidal (2009) have developed a heuristic device called the "governance triangle," which shows that, beyond a state-centric analysis of governance, international standards are created by varying combinations of three key actor groups: states, firms, and NGOs. Although private sustainability governance encompasses a wide range of individual and collective arrangements involving state and non-state actors, as well as profit and non-profit organizations, our report focuses on one of the governance triangle's vertices, namely firms. Specifically, we look at internal sustainability organizational initiatives launched by individual companies.

Corporations occupy a privileged position in private regulation (Clapp & Fuchs 2009, Fuchs et al. 2009, Banerjee 2018, Davis et al. 2018), which is “saturated” with corporate power (Bartley 2021, p.7). Most private sustainability governance studies either focus on case studies about specific private governance schemes or individual non-state actors. Concerning corporations, Walmart is one of the most cited examples in the literature (Backer 2007, Vandenberg 2007, Green 2014). Walmart, the second largest corporation globally, decided to “go green” in 2005 and created an index for evaluating the sustainability of their suppliers (Walmart Inc. 2020). To show the impact of Walmart’s decision, if Walmart were a country, it would be China’s 5th largest export market. The company has over two thousand suppliers worldwide and 200 million visits per week—the equivalent of having every citizen of Brazil from toddlers to the elderly shopping at Walmart weekly. Walmart’s market share makes it a global rule-maker for sustainability.

Worldwide the sustainability of business operations is under increasing scrutiny¹. Little, however, is still known about companies’ sustainability initiatives in the Global South², although Latin American companies have been receiving growing attention. This trend is reflected in recent research³ of which this Atlas is also part.

This Atlas shows that corporations in the South are also developing innovative sustainability solutions that need to be mapped and evaluated. For that, this Atlas presents a compendium of firm-level sustainability initiatives in the selected Latin American countries. Besides, it explores lessons that can be learned from the region and challenges that require policy responses.

Joining Efforts with Other Initiatives to Provide Information

1.1

Recognizing the challenges posed by the fragmentation of private sustainability governance, institutional efforts have been emerged to promote the convergence and harmonization of private standards. An important example is the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance⁴, a meta-governance arrangement devoted to developing agreements on best practices for sustainability systems. The ISEAL Alliance works as a meta-standard for credible, effective, and efficient sustainability standards. Voluntary Sustainability Standards (VSS) institutional design such as ISEAL full membership has been positively associated with suppliers’ access to voluntary sustainability standards (Fiorini et al. 2017). Besides, public authorities have also issued standards and procedural regulations to deal with fragmentation (Renckens 2020), such as the recast EU Renewable Energy Directive 2018/2001⁵.

Institutional efforts to deal with fragmentation have also focused on providing information.

1. To name one example, a new Corporate Sustainability Reporting Directive is currently being discussed at the EU-level.

2. One important exception is CDP’s global environmental disclosure system for companies (and cities), which also runs in Latin America <https://www.cdp.net/en/latin-america> and in other regions in the Global South.

3. Important examples include “The time has come: The KPMG Survey of Sustainability Reporting 2020” available at <https://home.kpmg/xx/en/home/insights/2020/11/the-time-has-come-survey-of-sustainability-reporting.html>; the WBCSD “Reporting matters – Latin America 2015” available at <https://www.wbcsd.org/Programs/Redefining-Value/Reporting-matters/Resources/Reporting-matters-America-Latina>; and the SAP study “Sustainability on the agenda of leaders in Latin America”, which addresses how CEOs and top executives of companies in Latin America analyze, among others, impacts generated by their businesses – available at <https://news.sap.com/brazil/2021/04/infografico-a-sustentabilidade-na-agenda-dos-lideres-da-america-latina-b10g/>.

4. More information at <https://www.isealliance.org/>.

5. Under this directive, the European Commission recognizes voluntary schemes that demonstrate compliance with European sustainability criteria for biofuels, in practice deciding which voluntary certification systems have market power in the European Union (Ponte 2014, Thorstensen & Mota 2019).

For example, the United Nations Forum on Sustainability Standards (UNFSS) is the only intergovernmental forum that deals specifically with private standards at a multi-stakeholder level, playing an important role in providing information, analyses, and discussions. This dialogue forum is complemented by national platforms and initiatives in emerging countries. They work as forums to exchange information and knowledge about VSSs and national standards. Besides, they assess the needs of decision-makers and other stakeholders, linking national demands with international expertise, and building institutions to strengthen communication. It is worth noticing that three out of the four countries investigated in this report have developed national VSS platforms under the UNFSS frame: Brazil, Colombia, and Mexico. They are created and shared by stakeholders under each country's designated coordinating body to reflect local priorities.

The Brazilian National Platform was launched in 2017 under the Brazilian National Institute of Metrology, Quality, and Technology (INMETRO) and seeks, among other purposes, to develop proactive national policies to maximize the opportunities for VSS while understanding its risks and the impacts on the Brazilian economy.

The Colombian National Platform (2021) is coordinated by the Colombian Institute of Technical Standards and Certification (ICONTEC) and will contribute to the Colombian Strategy for implementing the SDGs (CONPES 3918). Among other activities, the Platform will contribute to develop international research about benefits and impacts of VSS in Colombian agri-food sector.

Finally, The Mexican Platform (2018) is coordinated by the General Bureau of Standards (DGN for its initials in Spanish); it aims to engage multiple stakeholders in the dissemination and implementation of VSS, which are part of Mexico's National Development Plan 2013–2018 (*Plan Nacional de Desarrollo*)⁶.

Apart from UNFSS and its national platforms, there are databases on VSSs, for example, the Standards Map⁷. The Map was launched in 2011 by the International Trade Center (ITC), which is a joint agency of the United Nations and the World Trade Organization (WTO). The Standards Map provides information about more than 300 VSSs active in 192 countries and is a valuable tool for businesses and scholars to assess worldwide data on VSSs.

This Atlas also aims to respond to the challenges of fragmentation in private sustainability governance. Although the concept of corporate sustainability has expanded from individual self-regulatory initiatives to include transnational schemes involving a wide range of actors, we turn back to firms' internal organizational strategies to see whether Latin American companies have incorporated lessons learned from such a multilayered scenario of private sustainability governance. We accomplish this by providing knowledge about sustainability initiatives created by and/or integrated into the business model of private or state-owned companies in Latin America. As a result, unlike the previously mentioned institutional efforts and databases, this Atlas focuses on company-level initiatives and joins efforts with other studies that are also analyzing sustainability reports from companies in Latin America (as mentioned above, examples include recent research by KPMG, WBCSD, and SAP). Furthermore, rather than simply compiling information, it critically engages with the data

6. Box created according to <https://unfss.org/>. For more information, please refer to their website.

7. More information at <https://standardsmap.org/>. Other databases include, for example, the Ecolabel Index – <http://www.ecolabelindex.com/>.

by evaluating information disclosed by Latin American companies in terms of their best practices and regional idiosyncrasies, as well as by comparing it with NDC commitments.

Which Sustainability Governance Initiatives are companies implementing?

1.2

As previously stated, private sustainable governance covers a wide range of schemes, including Corporate Social Responsibility (CSR), Environmental and Social Governance (ESG) Criteria, Codes of Conduct (CoC), Multi-Stakeholder Initiatives (MSIs), Roundtables (RTs), Voluntary Sustainability Standards (VSS) and Certifications. This section begins with some definitions before narrowing down to the companies' sustainability initiatives selected to build the Latin American Atlas. However, attempting to describe the different acronyms used in private sustainability governance is challenging because there is no single definition of each of them, and there are many overlaps between these arrangements. Here we bring a tentative overview:

According to the UNFSS, Voluntary Sustainability Standards (VSS) are rules that producers, traders, manufacturers, retailers or service providers may be asked to follow so that the things they make, grow or do don't hurt people and the environment. Single businesses, business associations, environmental or social non-governmental organizations, or governments may establish VSS. While many VSS are associated with consumer products, others are used within business-to-business (B2B) relationships. It implies that producers, traders, manufacturers, retailers, or service providers may be required to comply (UNFSS 2020).

Corporate Social Responsibility (CSR), in its turn, is defined as a management concept by the United Nations Industrial Development Organization (UNIDO), in which companies integrate social and environmental concerns into their business operations while meeting the expectations of shareholders and stakeholders (e.g., clients, suppliers, creditors, employees, and communities in which companies operate). Through CSR, companies aim to achieve the balance of economic, environmental, and social imperatives ("Triple-Bottom-Line-Approach") (UNIDO 2021).

Additionally, Codes of Corporate Conduct (CoC) are defined by the Organization for Economic Co-operation and Development (OECD) as commitments voluntarily made by companies, associations, or other entities, which set forth standards and principles for the conduct of business activities in the marketplace. These include self-obligations and negotiated instruments regarding environmental stewardship, labor standards, science and technology, competition, information disclosure, taxation, consumer protection, bribery, and corruption (OECD 2001).

Another important acronym that has been gaining traction in the market, the media, and academia is Environmental and Social Governance (ESG). ESG is frequently used in the context of private sustainability finance to describe risk management practices, innovation drivers, and value creation through responsible investment (Global Compact 2021). ESGs are criteria used by fund and asset managers to evaluate the responsibility of companies in areas such as biodiversity protection, energy efficiency, pollutant emissions, corruption, discrimination, harassment, and diversity promotion.





Finally, Multi-Stakeholder Initiatives (MSIs) are frameworks for engagement among businesses, civil society, and other stakeholders, such as governments, created to address human rights and sustainability (FIDO/IFDD 2018). MSIs may facilitate dialogue across stakeholder groups, promote cross-sector learning, or develop standards for corporate conduct. MSIs examples are Stewardship Councils (e.g., Forest Stewardship Council — FSC) and Roundtables (e.g., Roundtable on Responsible Soy — RTRS).

As we can see, there is a significant overlap in the definitions above, which allows the inclusion of companies' initiatives as examples of more than one acronym. It refers to an "isomorphism" in corporate strategy to respond to external pressures (Grabs & Carodenuto 2021), including a diverse array of sustainability activities such as traditional CSR, third-party and multi-stakeholder certifications, and the development and imposition of own-company supplier policies and sustainability initiatives. To determine which company initiatives fall under the scope of this Atlas, we propose some further clarifications.

First, sustainability is a broad encompassing concept with three main pillars: economic, environmental, and social. This report takes this broad conceptualization into account. However, it focuses primarily on the environmental aspects of companies' sustainability initiatives, including deforestation, biodiversity loss, greenhouse gas (GHG) emissions, energy transition, and circular economy.

Second, the firm itself can create environmental standards (company-specific standards). Nevertheless, firms can also embrace the ones created by collective bodies, such as sector-specific standards created by business coalitions or broad-based public-private networks of multiple stakeholders (Ouma 2010). Reasons are justifying both behaviors: an individual firm tries to distinguish itself from competitors "by developing its own brand" of standards (Ouma 2010, p.199), while in some situations, "collective rulemaking is less costly and risky than chain-specific solutions" (Ouma 2010, p.204). Generally, a company creates its environmental standards as a public relations tool and then incorporates collectively developed certification schemes into its initiatives to gain credibility. These combined strategies are frequently the cases of companies represented in this Atlas.

Third, corporate sustainability initiatives regulate intra and inter-firm activities since it includes strategies to improve their internal (social and) environmental performance from a business management perspective and strategic purchasing that applies beyond the factory level⁸ (Bush et al. 2015). This reflects the importance of suppliers since consumers and investors are increasingly concerned with sustainability impacts throughout the entire supply chain. Hence, companies need to thoroughly monitor their suppliers' activities. Walmart again offers an interesting example. Known as "the New Wal-Mart Effect" (Vandenbergh 2007), it has been highlighted that networks of private contracts serve a public regulatory function in the global environmental arena. Private supply chain contracting regulates third firm behavior by imposing environmental requirements on domestic and foreign suppliers (ibid.).

8. These aspects are mainly related to what Bush et al. (2015) classify as sustainability governance *in* chains. The authors review how sustainability governance has been integrated into the literature on sustainable chain/networks. They propose three ideal types of governance *in*, *of*, and *through* chains to capture the multitude of cases of sustainability governance and the internal and external role of actors. Sustainability governance *in* chains relates more specifically to the supply chain management (SCM) literature. It is particularly concerned with internal firms' strategies to govern sustainability to improve their social and environmental performance from a business management perspective. For example, this is the case of firm-level CSR systems, which can also include strategic purchasing that applies beyond the factory level.

Based on this outline, our Atlas covers companies' sustainability initiatives mostly concerned with their environmental performance. Although this Atlas does not include initiatives developed by non-firms, it will consider whether companies partake in and/or incorporate standards developed collectively (e.g., in MSIs). It considers initiatives adopted at the firm-level and environmental requirements imposed on suppliers. As a result, while investigating the initiatives featured in this Atlas of Latin American Corporate Sustainability Initiatives, we answered some general questions in order to allocate companies' activities:

<p>1.</p> <p>Does the company adopt commitments to avoid deforestation, prevent biodiversity loss, curb GHG emissions, and increase energy efficiency?</p>	<p>2.</p> <p>Are the environmental standards company-specific and/or collectively created?</p>	<p>3.</p> <p>Do the environmental standards target companies' own performance and/or their (1st tier) suppliers?</p>
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1.3

Lessons Learned from the Literature

While the questions above help us identify important aspects of Latin American companies' sustainability initiatives, this report also creates an evaluation system. As mentioned, the literature has highlighted some limits and criticisms of private social and environmental governance. Based on the lessons learned from the literature, we developed⁹ some criteria for assessing corporations' sustainability initiatives, identifying best practices, and comparing companies' commitments with those foreseen by governments in their NDCs. Five specific examples of challenges broadly associated with private standards that have been highlighted by the literature are presented below and translated into specific criteria based on which this Atlas presents and evaluates companies' sustainability initiatives.

- I. **The first challenge** relates to meaningful stakeholder involvement. Despite various voluntary standards based on multi-stakeholder initiatives, private governance standards are frequently criticized as "Western dictates" due to the lack of representation afforded to producers, companies, and NGOs from the Global South and an overrepresentation of business actors from the North. We translate the demand for more participatory and representative discussions in private sustainability governance into a necessity for Latin American companies' sustainability initiatives to engage with concerned and affected stakeholders since this Atlas focuses on sustainability initiatives at the company-level rather than MSIs. We agree with those who claim that companies should "focus their attention on individuals and communities who are or could be affected by their operations or supply chains" (Ruggie 2021). Although stakeholder engagement can be assessed by looking into

9. Some of these lessons have been developed and used elsewhere to analyze the effectiveness of the draft version of the German Supply Chain Law (Marzano 2021). They are resumed here and adapted to create indicators for evaluating the selected corporate sustainability initiatives mapped in this Latin American Atlas.

companies' dialogue strategies regarding a broader spectrum of concerned actors — such as consumers, NGOs, shareholders, investors —, our analysis focuses on dialogue mechanisms with workers and affected local communities, particularly indigenous people.

II. Second, despite expectations that private environmental governance could help “fill the Paris Gap” (Vandenbergh & Gilligan 2017), various studies seeking to assess the meaningfulness of its social and environmental impacts have reached skeptical conclusions. As previously stated, companies frequently impose environmental standards on their suppliers as a path of their sustainability strategies. However, some argue that the traditional compliance model in which suppliers are rewarded or punished based on their performance should be complemented by commitment-based approaches (Locke et al. 2009). For example, a study shows that the improvement of labor conditions in supply chains depends on buyers' commitments to invest in long-term, mutually beneficial relations with suppliers (Locke 2013). Therefore, positive incentives such as capacity-building, technical and financial assistance should be used in addition to standards enforcement (Ruggie 2021). By applying such commitment-based approaches to companies' sustainability initiatives, we may determine whether the selected Latin American companies, more than imposing environmental requirements on suppliers, also assist them in meeting such standards. This is particularly significant since compliance costs are often passed on to producers/suppliers who may lack financial resources to adopt private requirements and cannot rely on public infrastructure or investment to achieve a sustainable transition in their business activities (Liu 2009). Critics also highlight that the disproportionate effects of private governance hit smallholder suppliers harder (Thorstensen et al. 2015, Thorstensen & Vieira 2016, Fiorini et al. 2017). As a result, we looked for companies' commitment-based approaches to evaluate whether companies are aware of these challenges and willing to take on responsibilities by providing support to their suppliers, particularly as financial and technical assistance as well as capacity building.

III. The third challenge relates to the abovementioned. Sustainability-driven demands can aggravate the reality of iniquitous global supply chains (Kaplinsky 2004) when costs are pushed upstream and lead firms capture value for themselves (Ponte 2019). Aware of the uneven accumulation of wealth in supply chains, redistributive business innovations are being developed, including solidarity, fair, direct trade, and the profit-sharing model (Bennett & Grabs 2021). Translating these challenges to companies' sustainability initiatives, particularly regarding the equal distribution of costs and benefits, suppliers should receive, at the very least, the payment of a minimum price that guarantees worker livelihoods. Besides, we assess whether companies claim to guarantee market access for suppliers that comply with their sustainability requirements and pay price premiums for certified products and services.

IV. Sustainability standards have also been criticized for becoming a business unto themselves as well as a distraction that impairs more radical and sorely needed economic and social reforms (Ponte 2019). More radical reform is needed in a variety of areas, not only to reduce consumerism but also to rethink the capitalist consumption-driven growth model. When discussing the demand for reforms in

the capitalist system in relation to companies' sustainability initiatives, we argue that firms should include circular economy approaches, i.e., rules that prevent companies from producing waste or pollution; thus, products, parts, and materials (including water) should be used, cared for, repaired, reused, and recycled as much as possible (Bernstein 2016). Although circular economy does not provide a solution to all the challenges of the capitalist system that require reform, its restorative and regenerative approaches are an important contrast to the traditional linear economy model of production ("take-make-waste extractive industrial model¹⁰").

V. **Last**, we examined one of the premises generally raised by enthusiasts of private environmental governance: it bypasses government inaction (e.g., Vandenbergh & Gilligan 2017). Some argue that private environmental governance helps to compensate for states' inability/unwillingness to regulate/enforce social and environmental rules. Others contest this idea by calling for contextualized portraits of private environmental and social rules in practice, arguing that implementation places are not "empty-spaces" (Bartley 2018a, b). Following this argument that states are not regulatory voids, we also provide in this Atlas an overview of the current NDCs submitted by the selected Latin American countries under the framework of the Paris Agreement. On this basis, we compare NDC targets with the content and the stringency of companies' sustainability voluntary commitments.

As a result, while companies can help promote sustainability, effective business solutions require the minimum fulfillment of some criteria, including (1) the involvement of relevant stakeholders; (2) commitment-based strategies to build trust with suppliers and genuinely integrate them in supply chains; and (3) the adoption of circular economy approaches. Based on these considerations and from the investigation of the companies' sustainability initiatives, we respond to the following specific questions to evaluate them:

1. Does the company establish *dialogues* with workers and local communities who are or could be affected by its operations or supply chains? Does the company recognize and embrace stakeholders' demands in their sustainability initiatives?

2. Does the company *support its suppliers* in the adoption of environmental requirements? This includes the adoption of commitment-based approaches to establish long-term mutually beneficial contractual relations, the provision of financial and technical assistance as well as capacity building for suppliers; and, at the very least, the payment of a minimum income for its suppliers, but also the granting of market access and the payment of price premiums.

3. Does the company include *circular economy approaches* in its sustainability initiatives, i.e., avoiding waste or pollution, reusing and recycling products, parts, and materials (including water)?

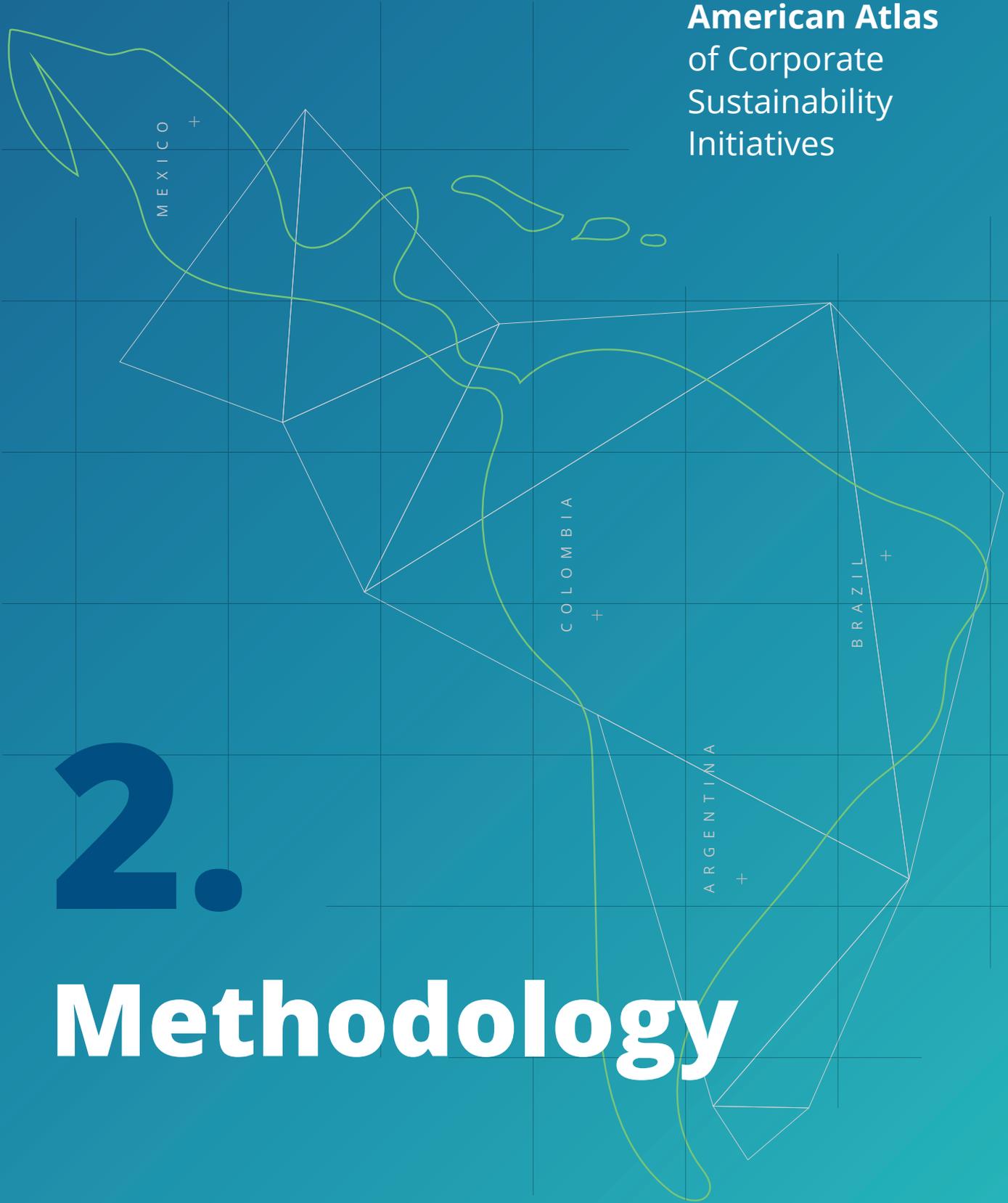
10. More on that at <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>.

Lastly, in order to provide a contextualized portrait of the sustainability landscape in the selected countries, we pose the following question:

4. Does the company include in its sustainability reports *less, equally, or more stringent* commitments than governments? Particularly, are corporate actions *complementary* or *contradictory* in relation to countries' NDC targets?

This latter point is particularly relevant in the light of deforestation, biodiversity loss, GHG emissions, and circular economy commitments undertaken by governments and companies. However, just because corporate initiatives may be more stringent than NDCs does not necessarily mean that they are better because they may place additional burdens for suppliers without necessarily providing them the means to meet requirements, such as when no supplier support is foreseen in the initiative. Thus, by combining the above challenges, criteria, and questions, we can provide a more realistic and in-depth understanding of the diversity of companies' initiatives investigated in this Atlas. It enables us to gather critical data and compare corporations' commitments within and across countries and economic sectors. ■

The Latin American Atlas of Corporate Sustainability Initiatives



2.

Methodology

This chapter sketches the adopted methodology and explains fundamental research design choices, such as the geographical scope of the Atlas and the selection of key export sectors and companies that function as units of analysis. It also describes the adopted qualitative research methods and data sources. Besides, it explains how companies' factsheets and NDC profiles (presented in the following chapters) have been constructed. Finally, this Atlas also faces important limitations, which are discussed in the last section of this chapter.

2.1

Geographic Cut-Out: Latin America

For methodological purposes, it was necessary to select the first group of countries in this initial effort to design a Latin America Atlas of Corporate Sustainability Initiatives. Considering the size and heterogeneity of the Latin American region, we resorted to some indicators to select the countries under investigation. The indicators were: gross domestic product (GDP), territory, number of multinational companies, and economic diversity. Taking these indicators into consideration, we chose Argentina, Brazil, Colombia, and Mexico.

2.2

Key Export Sectors and Companies as the Units of Analysis

Following the selection of countries, it was required to establish which economic sectors would be analyzed. We identified the top five segments from each country's foreign trade agenda to make sure we would cover the largest number of Latin American multinational corporations. Given the four countries' economic profiles, which are driven by extractive and agro-industries, it was able to identify a significant overlap among their top economic activities. We clustered them into five sectors: i. Agrifood; ii. Oil/Energy; iii. Mining; iv. Automotive; and v. Vegetables, Cellulose, and Paper¹¹.

Finally, we mapped multinational corporations headquartered in the selected Latin American countries that operate in these five economic sectors. Additionally, we selected only those that have released a functional sustainability report in which they outline their strategies and initiatives.

11. This category was initially described as "Fruits, Live Plants, and Flowers." However, during the selection of multinational companies from the four countries, we decided on another name that was more faithful to the selected corporations: "Vegetables, Cellulose and Paper." This is considered a residual category in our analysis, differently from the companies gathered under the "Agrifood" sector, i.e., large agricultural, livestock, and ultra-processed food companies. Under "Vegetables, Cellulose, and Paper," we included, for example, diverse companies like Bece, which produces (among other drinks) the tequila José Cuervo. This was the only company in the alcoholic beverages segment. However, since its production does not cause the same environmental impacts as other Agrifood companies we investigated, we decided to leave it under 'vegetables' to facilitate comparisons regarding companies' sustainability initiatives within and across sectors.

Qualitative Data Analysis: Corporate Sustainability Reports and NDCs

2.3

This Atlas resorts to qualitative analysis based on primary and secondary data collection. The core strategy for developing each company's factsheet, which is the central part of our Atlas, was to collect information from the single most recent version of their corporate sustainability reports, often available at the firms' website. Additional information was collected from documents such as media coverage, industry publications, market analyses, etc. The table below compiles all the recent versions of the reports that were used in this Atlas.

Sector	Name	Country	State-owned/ Private	Reports	Year
Agrifood	JBS	Brazil	Private	JBS Annual and Sustainability Report 2019	2019
Agrifood	BRF	Brazil	Private	Relatório Integrado: Evolução que alimenta o Futuro	2020
Agrifood	Amaggi	Brazil	Private	2019 Relatório de Sustentabilidade	2019
Agrifood	Marfrig	Brazil	Private	Relatório de Sustentabilidade 2020	2020
Agrifood	BrasilAgro	Brazil	Private	Relatório de Sustentabilidade 2019 2020	2019–20
Agrifood	CRESUD	Argentina	Private	Reporte de Sustentabilidad PF 2019	2019
Agrifood	Arcor	Argentina	Private	Nourishing Bonds for Development: Sustainability Report 2019	2019
Agrifood	Grupo Nutresa	Colombia	Private	Integrated Report 2020	2020
Agrifood	Daabon	Colombia	Private	Daabon Sustainability Report 2012–2018	2012–18
Agrifood	Grupo Manuelita	Colombia	Private	Informe de Sostenibilidad 2017–2018	2017–18
Agrifood	Citrosuco	Brazil	Private	Relatório de Sustentabilidade 2019–2020	2019–20
Agrifood	Bachoco	Mexico	Private	Growing Together Everyday: Sustainability Report 2020	2020
Oil/Energy	YPF	Argentina	State-owned	Sustainability Report 2019	2019
Oil/Energy	Tecpetrol	Argentina	Private	2019 Global Sustainability Report	2019
Oil/Energy	Petrobras	Brazil	State-owned	Sustainability Report 2020	2020
Oil/Energy	Terpel	Colombia	Private	Sustainability Report 2020	2020
Oil/Energy	Ecopetrol	Colombia	State-owned	Reporte Integrado de Gestión Sostenible 2020	2020
Oil/Energy	Pemex	Mexico	State-owned	Sustainability Report 2019	2019
Oil/Energy	Vista Oil & Gas	Argentina	Private	Sustainability Report 2020	2020
Mining	Vale	Brazil	Private	Integrated Report 2020	2020
Mining	Ternium	Argentina	Private	Sustainability Report 2020	2020
Mining	Nexa Resources	Brazil	Private	Annual Report 2020	2020
Mining	Mineros	Colombia	Private	Sustainability Report 2020: Mineros por el Bienestar de Todos	2020
Mining	Grupo Mexico	Mexico	Private	Sustainable Development Report 2020	2020
Mining	Industrias Peñoles	Mexico	Private	Sustainable Development Report 2020	2020
Mining	CBMM	Brazil	Private	Sustainability Report 2020	2020
Automotive Sector	lochpe-Maxion	Brazil	Private	Relatório de Sustentabilidade 2019	2019
Automotive Sector	Fras-Le	Brazil	Private	Sustainability Report 2020	2020
Automotive Sector	Metalsa	Mexico	Private	2020 Sustainability Report	2020
Automotive Sector	Nemak	Mexico	Private	Nemak 2020 Annual Report	2020
Vegetables, cellulose and paper	Suzano	Brazil	Private	2020 Annual Report	2020
Vegetables, cellulose and paper	Klabin	Brazil	Private	Relatório de Sustentabilidade: como nos saímos em 2020	2020
Vegetables, cellulose and paper	Bio Pappel	Mexico	Private	Informe de Sustentabilidad 2020	2020
Vegetables, cellulose and paper	Becele	Mexico	Private	Becele Annual Report 2019	2019

We also provided an overview of the environmental profile of the four countries selected in our geographical scope. The core strategy for developing each country's profile was to collect their most recent NDCs — all four countries presented updated versions of their NDCs in 2020. When further information was required, it was collected from media coverage and government official websites.

2.4

Companies' Factsheets

We collected original data from each company's single most recent version of its sustainability reports to create the factsheets. We referred to the pages of their respective reports where the information can be found. Concerning the specific research goal, we developed questions and procedures to help us identify best practices and challenges. Based on a literature review presented in chapter 1, three general questions were designed to provide an overview of each company initiative, and three specific questions were developed to provide more detailed inquiries. These questions are brought here again, followed by a sample of the factsheet that we developed and has been filled out after analyzing each company's corporate sustainability report (all of them are gathered in chapter 3).

General Overview:

1. Does the company adopt commitments to avoid deforestation, prevent biodiversity loss, curb GHG emissions, and increase energy efficiency?
2. Are the environmental standards company-specific and/or collectively created?
3. Do the environmental standards target companies' own performance and/or their (1st tier) suppliers?

Specific Inquiries:

4. Does the company establish dialogues with workers and local communities who are or could be affected by its operations or supply chains? Does the company recognize and embrace stakeholders' demands in their sustainability initiatives? [*From now on, "stakeholder engagement"*]
5. Does the company support its suppliers in the adoption of environmental requirements? This includes the adoption of commitment-based approaches to establish long-term mutually beneficial contractual relations, the provision of technical assistance, and capacity building for suppliers; and, at the very least, the payment of a minimum income for their suppliers, but also the granting of market access and payment of price premiums. [*From now on, "supplier support"*]
6. Does the company include circular economy approaches in its sustainability initiatives, i.e., avoiding waste or pollution, reusing and recycling products, parts, and materials (including water)? [*From now on, "circular economy"*]

Company Factsheet Sample:

Company Name:	[Sector symbol]
Country:	
Capital Formation:	
Annual Revenue:	
Overview:	
Environmental Action:	
Circular Economy Initiatives:	
Stakeholder Engagement:	
Supplier Support:	
Highlights (if applicable):	
Challenges (if applicable):	
Notable Commitments, Standards and Associations Participation:	
Awards / Certifications / Accreditations:	

Firstly, we used abbreviations in the factsheets because of the vast number of acronyms that exist and are referred to in public and private sustainability governance. The complete information can be found in the glossary (annex).

Secondly, and more specifically to question 2 (on whether we referred to company-specific and/or collectively created sustainability initiatives), we mainly included initiatives that the company created in each specific item. When companies used collective (inter) national and transnational standards, we also mentioned this explicitly in that item; nevertheless, other collective (inter)national initiatives were inserted into the “Notable commitments, Standards, and Associations Participation” and “Awards/Certifications/Accreditations” items.

It is worth noting that sometimes the same nomenclature/acronym (of a seal, group, standard, etc.) may appear in both “Notable Commitments, Standards and Associations Participation” and “Awards/Certifications/Accreditations” categories. This is because some companies usually follow the standard of an international seal without having obtained it yet. In this scenario, ISO, for example, is mentioned in the first category if a company claims to follow ISO standards but has not yet achieved the certification. In contrast, when the company receives notorious recognition in a national/international initiative, it is listed in the second category. This happens, for example, when the companies that participate in the Carbon Disclosure Project (CDP) received top CDP ratings.

Thirdly, regarding companies’ annual revenues, most of this information was obtained from business data provided by Dun & Bradstreet¹² and verified in the corporations’ reports. The values were generally consistent, except for Daabon, for which we did not find this information; and Amaggi, Arcor, Becele, Bio Pappel, CBMM, Manuelita, Metalsa, Ternium, and Terpel, which the data source was the companies’ own financial audit/sustainability reports, or from the Wall Street Journal, as noted in footnotes in each case. For companies whose data was only available in local currency, the average annual exchange rate¹³ was used.

Finally, the items “Highlights” and “Challenges” were filled in, if applicable. The decision was made according to cases that received media attention or stood out in our analysis. Based on this sample, we collected the data and assembled the boxes.

12. See <https://www.dnb.com>.

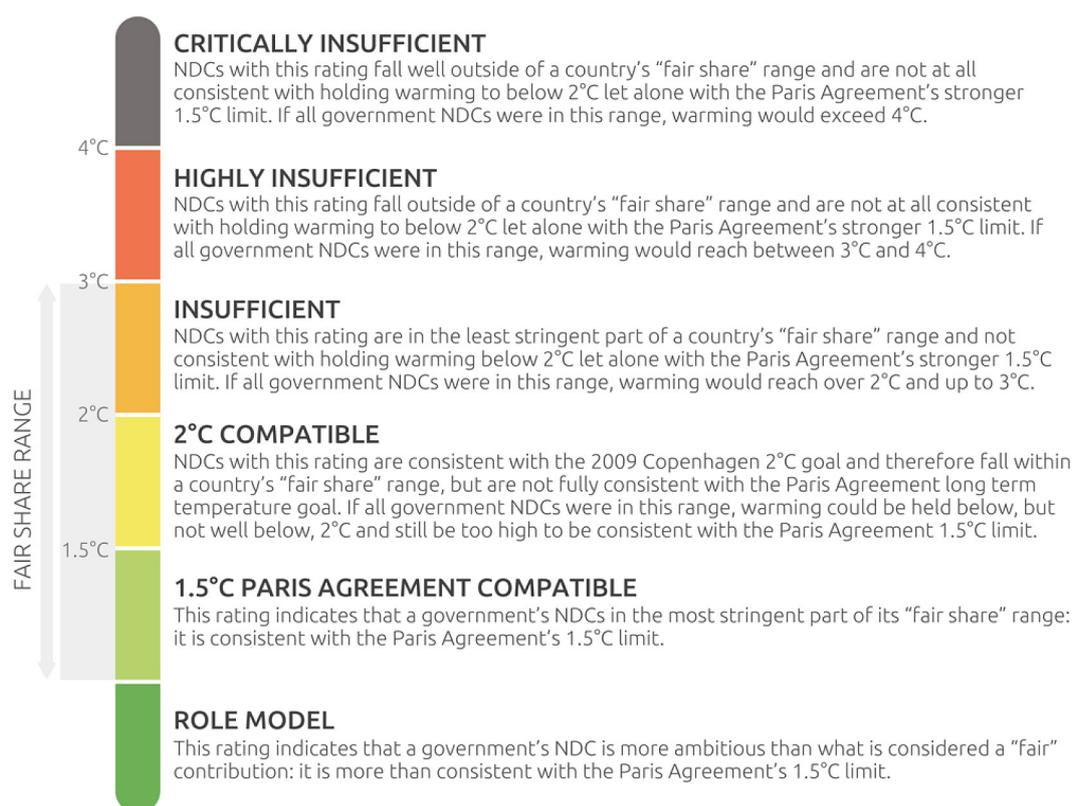
13. Historical data from <https://br.investing.com>.

2.5

NDCs, Legislations, and Institutional Actors

We collected original data from the most recent versions of the NDCs to create the national environmental profiles. For the specific research goal at hand, we developed an NDC sample. The items selected for investigation are related to those environmental topics that we collected from companies' sustainability initiatives and the key export sectors in the region. We also included information about specific environmental legislation and the most relevant institutional domestic actors. A comprehensive list of laws and regulations should not be expected since part of the purpose of these samples was to show how judicious countries were (or not) in developing their NDCs.

Additionally, we resorted to the World Bank online database¹⁴ to identify countries' total and per capita emissions. We resorted to Climate Home News¹⁵ to identify national carbon neutrality targets. We also referred to the Climate Action Tracker (CAT) evaluation system of NDCs and their updates¹⁶. CAT evaluates NDCs on a spectrum that ranges from critically insufficient, highly insufficient, insufficient, 2°C compatible, 1.5°C Paris Agreement compatible, and role model (below). Moreover, CAT evaluates the status of the NDC update process in two broad main categories: a) countries that have submitted/proposed stronger new NDC targets; and b) countries that did not or will not increase ambition.



Source: ClimateActionTracker.org

14. See <https://data.worldbank.org/indicator/EN.ATM.CO2E.PC>.

15. <https://www.climatechangenews.com/2019/06/14/countries-net-zero-climate-goal>.

16. See <https://climateactiontracker.org>.

Based on the samples, we answered (in chapter 5) the final research question elaborated according to our literature review: does the company include in its sustainability reports *less, equally, or more stringent* commitments than governments? Particularly, are corporate actions *complementary* or *contradictory* in relation to countries' NDC targets? This is especially relevant to compare companies' initiatives and NDCs regarding deforestation, biodiversity loss, GHG emissions, and circular economy commitments.

National Profile Sample:

National Determine Contribution – Country
Emission:
Per Capita Emission:
Goal:
Updated Goal:
CAT Score:
Carbon Neutrality Target:
Energy Transition:
Transportation:
Environment and Agriculture:
Production and Infrastructure:
Circular Economy:
Carbon Markets:
Major Environmental Regulations:
Major Domestic Actors:

2.6

Limitations

This report requires a formidable undertaking to develop a Latin American Atlas of corporate sustainability initiatives, identify best practices and commonalities in the region, and compare private and public initiatives. Despite its ambitious purposes, decisions were made to limit its scope and make this study feasible. These decisions were discussed in detail above, justifying case selection, geographical scope, key export sectors, unit of analysis, and data sources.

These choices led to important limitations. For example, this Atlas was based on the single most recent version of each companies' sustainability reports available on their websites. This means that, on the one hand, we cannot identify greenwashing, although we recognize the seriousness of this challenge. On the other hand, it is also reasonable that we could have looked for a specific sustainability initiative that the company possibly undertakes but has not been mentioned in its recent report. If such is the case, this initiative will probably be absent from our factsheets.

Therefore, our readers must be aware of these limitations. When analyzing the information provided for each corporation, the criteria and data sources selected above-mentioned must be considered. We underlined the importance of conducting more in-depth research to evaluate the effectiveness of companies' sustainability initiatives to ensure whether companies are fulfilling their promises, i.e., whether their initiatives are leading to positive social and environmental impacts. Additionally, for more information about a company's

specific action, our Atlas must be combined with other corporations' information and reports made available.

Similar shortcomings apply to our NDC samples. Most of the information is gathered from countries' official submissions to the Paris Agreement, available at United Nations Framework Convention on Climate Change (UNFCCC) website¹⁷. As it will be discussed in chapter 5, some selected countries submitted more detailed information than others. Again, it is reasonable that we could have looked for a specific environmental initiative that the country possibly undertakes but it has not been mentioned in their NDCs. If such is the case, this policy will probably be absent from our sample.

Finally, we emphasize that we do not represent any companies or governments we analyzed in this Atlas. Instead, we use publicly available information to offer a comprehensive overview of corporate sustainability and national environmental policies in Latin America. We acknowledge that this is only a snapshot of a broader and more complex phenomenon, and companies and countries follow different transparency standards for presenting their initiatives.

Lastly, this Atlas has a limited focus on companies' environmental initiatives, therefore we do not investigate other governance issues. Although corruption, for example, is a major challenge in the region, this is outside the scope of this Atlas. ■

17. <https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx>.

**The Latin
American Atlas
of Corporate
Sustainability
Initiatives**



3.
The Atlas

THE LATIN AMERICAN ATLAS
OF CORPORATE SUSTAINABILITY INITIATIVES



Mexico



OIL/ENERGY

- Pemex



MINING

- Grupo Mexico
- Industrias Peñoles



AGRIFOOD

- Bachoco



AUTOMOTIVE

- Metalsa
- Nemak



VEGETABLES, CELLULOSE AND PAPER

- Bio Pappel
- Becele

Colombia



OIL/ENERGY

- Terpel
- Ecopetrol



MINING

- Mineros



AGRIFOOD

- Daabon
- Grupo Nutresa
- Grupo Manuelita

Argentina



OIL/ENERGY

- YPF
- Tecpetrol
- Vista Oil & Gas



MINING

- Ternium



AGRIFOOD

- CRESUD
- Arcor

Brazil



OIL/ENERGY

- Petrobras



MINING

- Vale
- Nexa Resources
- CBMM



AGRIFOOD

- JBS
- BRF
- Amaggi
- Marfrig
- BrasilAgro
- Citrosuco



AUTOMOTIVE

- Iochpe-Maxion
- Fras-Le



VEGETABLES, CELLULOSE AND PAPER

- Suzano
- Klabin

Company Name:**JBS**

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 49.72 billion

Overview:

JBS is one of the major food industries in the world. The company operates in the processing of beef, pork, sheep, and chicken and in the leather industry (beyond some hygiene and cleaning products, collagen, biodiesel, and others to a lesser extent). JBS is present in 15 countries and divides its activities into three big business units: JBS Mercosul, JBS Foods, and JBS USA.

**ENVIRONMENTAL ACTION**

Over ten years ago, the company joined the GHG protocol. It calculates its scope 1, 2, and 3 emissions. JBS affirms its commitment to combating and discouraging deforestation, especially in the Amazon, by monitoring the origin of its raw materials (for example, using satellite technologies to monitor its suppliers' compliance in not invading illegal areas, such as indigenous lands and environmental preservation areas). Despite this, the company did not mention any direct reforestation or biodiversity promotion action in its report, only its intention (page 93). The company's primary measures to reduce its carbon print are investments in energy and fossil fuels efficiency, the self-production and the use of alternative sources. From the total energy consumed by JBS in 2019, approximately 45% came from clean sources (pages 102 and 103).

**CIRCULAR ECONOMY INITIATIVES**

JBS Related Business: this segment handles most of JBS's circular economy activities. It adds value to coproducts and materials of animal origin that are not typically used in its traditional processing operations (producing biodiesel, collagen, animal feeds, cleaning materials, among others). It also reuses and recycles plastic, mostly through the "JBS Ambiental" unit (which becomes trash bags, plastic tarps, pallet covers, etc.).

In 2019, only 2% of the water captured from the environment was reused in cleaning of external areas and cooling systems (page 100).

**STAKEHOLDER ENGAGEMENT**

Each JBS unit has the autonomy to determine its social responsibility programs, which are usually based on local community surveys. Most of the actions are focused on education and professional development (but also on health, disability inclusion, among others) and are accomplished through sponsorships,

volunteering activities, and direct investments to support existing initiatives or own authorship projects (page 95). Some of the featured projects are: Good Deeds are Good (by JBS Brazil, page 159) and the New Paths Program (by Seara, page 208). The report makes no mention of social development projects targeted primarily towards indigenous communities. JBS is a member of several food industry associations and unions. The report shows that consumers engage in more direct communication than any other stakeholder. The most traditional channels are Customer Service Centers, social media, and market surveys, monitored by service teams responsible for receiving their feedback.



SUPPLIER SUPPORT

Supply Chain Protocol program: An initiative that certifies compliance with JBS's sustainable guidelines and policies through proactive monitoring of its supply chain. It is based on international parameters such as the BRC, the EU Regulation 1099 on Animal Welfare, the EU Regulation on Traceability, and the AMI Protocol on Animal Welfare in the US.

Each brand/local unit promotes long-term relationship initiatives and training programs tailored to the local needs (page 89). Here are some examples: (1) The Integrated Partnership, in which Seara brand helps in providing the inputs for animal welfare and quality, as well as offering consultancies in productive management and sustainability (page 205); (2) The Friboi, BRSL, and Araguaia League Partnership, in which contracts were signed with consultants specialized in sustainable livestock management to capacitate suppliers; (3) The Social Fuel Seal, granted by the Brazilian government to companies that strengthen family farming. Finally, concerning JBS, the partnership between Friboi and JBS Biodiesel promotes the guaranteed purchase of cattle from farmers of 18 municipalities of Rondônia, allowing these small livestock producers to invest in productive improvements (page 154).



HIGHLIGHTS

JBS 360¹⁸: an online platform that provides complete tracking and origin of leather items produced throughout the value chain, from the farm of origin to the final product.

Beef on Track¹⁹: an online platform that, in collaboration with the Brazilian Federal Prosecution Office and the CSO Imaflora, establishes criteria for acquiring cattle (raw material for the company's operations) in the Amazon region (page 93).



CHALLENGES

Following the accusation of adulterating meat sold in the national and international territory (selling spoiled, out-of-date food and with an excess of chemical products), the Brazilian federal police launched the "Operação Carne Fraca" investigation (Operation Weak Flesh), which revealed severe corruption scandals. The company's most recent report concentrates on informing consumers about the origin and quality of its products.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards / TCFD / SASB / Brazil GHG Protocol Program (Published inventories: 2018 and 2019) / CDP / GRSB / TFA / Net Zero (SBT)



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

SGS / DNV-GL / LWK / PAACO / BRC v.8 / Assured Chicken Production / FSSC 22000 / ISO 9001 / ISO 14001 / ISO 14064-1 / ISO 50001 / OHSAS 18001

18. Link: www.jbs360.com.br

19. Link: <https://www.beefontrack.org>

Company Name:**BRF**

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 7.26 billion

Overview:

BRF is one of the world's largest food companies, producing proteins in nature, frozen food, margarine, cold cuts and sausages, vegetables and ingredients, and animal feed. The company owns brands like Sadia, Perdigão, Qualy and Banvit, and it manages 34 industrial complexes and 22 distribution centers in Brazil, as well as 41 international offices, seven industrial units in the Middle East, and 28 distribution centers in Asia, the Americas, and the Middle East, serving clients in 117 countries.

**ENVIRONMENTAL ACTION**

In 2020, BRF started implementing a software solution for the automated calculation of Scope 1 and 2 emissions, integrated with the company's information system. Only data from business travels, waste generated in operations, and transport and distribution in Brazil were used to calculate scope 3 emissions in 2020. Still, the company intends to expand this calculation along its chain in 2021. Through this software, the company is improving and standardizing the emissions control in all BRF units globally; and the company's inventory emissions received the gold seal of the Brazilian GHG Emissions Protocol Program (pages 156–157). The BRF's Sustainability Plan was launched in 2020 and is committed to implementing a carbon neutral product line by 2021, reducing GHG emissions by 20% by 2030, and increasing the self-production of electricity from clean sources by 2030 to 50% (page 87). Additionally, ensuring 100% traceability of the grains purchased (from direct and indirect suppliers) from Amazon and Cerrado until 2025 is one of the goals defined for 2021 to compose the variable remuneration of executives (page 85). Finally, according to the categories eligible for BRF green bonds, the company spent US\$ 22,5 million on projects to reduce its environmental impact, and BRF plans to gain access to green bonds of €500 million of Senior Notes in 2022 to invest in energy efficiency, renewable energy, and reduction of GHG emissions, among other things.

**CIRCULAR ECONOMY INITIATIVES**

Among the goals set for 2021 to make up the variable remuneration of executives are reducing water usage by 13% by 2025, promoting education to reduce food waste for 1.5 million people globally by 2030, and getting 100% of the recyclable, reusable, or biodegradable packaging by 2025 (page 85). Through the Environmental Sustainability Index, BRF monitors effluents, residues, atmospheric emissions, noise, odor, and environmental licenses, which have been standardized globally. It grew beyond the industrial and agricultural units in Brazil and Abu Dhabi in 2020, and the goal for 2021 is to

expand it to the units in Turkey. The company adopts a range of RRR technologies for waste management, including composting organic waste to create biofertilizers. In addition, the company invests in R&D to promote recyclable packaging. Regarding water management, the company monitors the use of the resource to optimize it using RRR practices and assesses the water risk in the locations where it operates, avoiding shortages of supply. Finally, all effluents are treated at appropriate stations before disposal (pages 153–155).



STAKEHOLDER ENGAGEMENT

According to the report (page 133), the company “units elaborate their engagement strategies with the communities, taking into account the demands of social development and the information obtained from the dialogue with neighborhood associations, local industry associations, social organizations, local public bodies and with the employees themselves” to redefine community actions taken in 2020 during the pandemic. BRF promoted volunteer actions, food and blood donation, training courses, sports, and inclusion activities with more than half of the initiatives counting on engagement actions and impact assessments. The company maintains the BRF Institute, a private institution responsible for the definition and financial management of activities (page 136). The traditional/indigenous communities are not mentioned in the report.



SUPPLIER SUPPORT

All suppliers are contracted based on social and environmental criteria. Aside from contractual guidelines, the company works with a Chain Monitoring Program, which focuses on social and environmental risks. In 2020, 96.3% of suppliers of medium and high-value raw materials, ingredients, and packaging were GFSI-certified (pages 122–123). For transport service providers, the company has been developing a series of initiatives to mitigate risks and reduce accidents, such as installing sensors capable of identifying driver fatigue, promoting light therapy (exposure to light at night before traveling), and other

investments in risk mitigating technologies, which provided a 30% drop in road accidents compared to 2018, the year in which this strategy began (pages 125–126). Furthermore, the company signed an agreement with *Banco do Brasil* to release US\$ 36.15 million in credit with favorable loan payment conditions (within 10 years and interest of 0.64% per month) to its suppliers who wish to invest in photovoltaic energy (page 131).



HIGHLIGHTS

In 2019, BRF implemented a diversity policy similar to other companies, such as hiring women and promoting them to executive positions, as well as people with disabilities, people from different religions, ethnicity, and sexual orientations, and so forth. In the same year, it launched a program in 2019 to hire immigrants in partnership with UN Migration a, who now number over 5,000 in the company, mostly Haitians, Senegalese and Congolese (page 109).



CHALLENGES

Like JBS, BRF was also involved in the *Carne Fraca* operation, focusing on denouncements of fraud in the sanitary control of its slaughterhouses. In the third and last phase of the operation, the company’s former president was arrested, and fraud reports on salmonella were discovered in four of the company’s factories²⁰.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / UNGC (Since 2007) / GRI Standards / IIRC/ RedEAmérica / WAP / CDP / DJSI / Brazil GHG Protocol Program (Gold seal)



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 14001 / Global G.A.P / BRC / IFS / PAACO

20. More details about phase 3 can be accessed on <https://g1.globo.com/pr/parana/noticia/carne-fraca-4-fabricas-da-brf-fraudavam-laudos-de-salmonela-para-exportacao.ghtml>

Company Name:

Amaggi

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 4.56 billion²¹

Overview:

Amaggi is a leading farming company in Brazil, with operations vertically integrated across the production supply chain. The company has operations in all continents and offices in Argentina, China, Netherlands, Norway, Paraguay, and Switzerland.



ENVIRONMENTAL ACTION

Amaggi claims to work on three fronts to tackle climate change: (1) GHG emissions management (the company calculates and discloses scopes 1, 2, and 3 emissions), (2) emissions mitigation, and (3) adaptation measures.

One of the key goals is to achieve zero deforestation in all its farming units. Additionally, 48% of its rural assets are designated as conservation zones — some of those have been submitted to the company's reforestation project. The reforestation project was developed in partnership with the *Associação Rede de Sementes do Xingu* (ARSX) and aimed to plant a wide array of vegetal species to benefit rural communities and indigenous villages. The company has invested in a geospatial monitoring program to keep track of its rural properties and its suppliers across the company's productive chain to achieve these goals.



CIRCULAR ECONOMY INITIATIVES

Regarding waste management, from the report, we could not find a specific and comprehensive policy toward this subject. The company seems to have integrated the waste management with other more significant initiatives, such as the Best Farming Practices Policy, which has a management policy for vegetal waste, and the Supply Management Policy, which has a component of developing and contracting waste management facilities. The same seems to apply to water management. For example, within the Best Farming Practices Policy, the company indicates that its farms do not drain water for irrigation; they only use rainwater. Therefore, their plantations follow the cycle of rain patterns. Also, as part of its Conservation Policy, the company has a program to restore nascent water in its reserves and protected areas to strengthen the sustainability of those areas.

21. Data available at the company's financial audit report: https://www.amaggi.com.br/sis_documentos/wp-content/uploads/arquivos/demonstracoes/2020/05/796991-DF-Andr%C3%A9-Maggi-Participa%C3%A7%C3%B5es-S.A.-31.12.2020-IFRS.pdf



STAKEHOLDER ENGAGEMENT

The André and Lucia Maggi Foundation is the company's social engagement arm. According to its Private Social Investment Policy, its initiatives toward social development are guided by the UN SDGs. The foundation's business is focused on local communities where the company has operations and invests in cultural activities and social development projects, with primary goal of encouraging public engagement. These initiatives are carried out through projects in collaboration with the local municipalities and/or other local actors or direct investment in the community in agreed-upon themes. The Foundation also provides full scholarships for young people aiming to study technology and agrocomputation.



SUPPLIER SUPPORT

Amaggi suppliers must undergo a comprehensive evaluation project that includes the company's Corporate Sustainability Department. According to the report, the company policy guides its future accreditation whenever a supplier is rejected for not complying with the sustainability standards and certifications. To keep track of the suppliers' accountability, the company developed a system called ORIGINAR, which allows it to conduct a socio-environmental assessment of suppliers and monitor their properties to guarantee that its environmental requirements are being met.

Amaggi also developed projects such as the Technological Circuit and Responsible Logistics Program to develop and share knowledge with the company's suppliers. Among these programs, the Amaggi Responsible Standard (ARS) aims to provide certifications for its suppliers. For being in line with international standards, ARS certification may pave the way for suppliers to apply for other certifications.



HIGHLIGHTS

The company establishes a wide range of partnerships with institutions dedicated to

climate change, sustainability, environmental protection, sustainable production, and trade. Matopiba Coalition, Earth Innovation Institute, Amazon Environmental Research Institute, Roundtable on Responsible Soy, The Nature Conservancy, and CDP Forest are its partners. Amaggi developed a partnership with the Amazon Environmental Research Institute to support sustainable farming research and integrate farming into biodiversity and forests to foster scientific knowledge.



CHALLENGES

Blairo Maggi, the founder of the Amaggi Group, led a political life simultaneous with his business activities, serving as governor, senator, and even Minister of Agriculture, Livestock, and Supply in Brazil between 2016 and 2019. He was accused of conflict of interest by the media²², NGOs, civil organizations, and other politicians. Some of these include the paving of thousands of kilometers of highways aimed at transporting grain for export, supporting a bill that allowed foreigners to acquire land — except in corn or soybean areas (main grains produced by Amaggi), and even strongly influencing the Brazilian Federal Police investigations into the *Carne Fraca* scandal.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards / UNGC (Since 2009) / CPD / GTS / Amazon Soy Moratorium / RTRS / TNC / IDH / Earth Innovation Institute / UNGC Food and Agriculture Business Principles / Green Grain Protocol / Brazil GHG Protocol Program (Published inventories: 2014, 2016, 2017 and 2019) / Good Growth Partnership



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 14001 / FSSC 22000 / BCI / Proterra Standard / GMP+ FSA certificate

22. See <https://www.bloomberg.com.br/blog/escandalo-da-carne-no-brasil-lanca-luz-sobre-personagem-polemico/> and <https://www.oeco.org.br/reportagens/23734-o-fim-da-era-maggi/>

Company Name:

Marfrig

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 12.42 billion

Overview:

Marfrig is a global leading food processing industry. Its primary focus is on processing animal protein, even though it has recently expanded into the vegetable protein sector. Its operations are divided between North and South America, and its commerce spans more than a hundred countries.



ENVIRONMENTAL ACTION

The company launched the *Marfrig Verde+* Plan in 2020, which seeks to speed up the sustainability of its production chain. The plan aims to achieve 100% of its suppliers' chain free of deforestation by 2030. Since 2021, the company has conducted inventories of its GHG emissions, calculated, disclosed, and divided into scopes 1, 2, and 3. Its overall reduction from 2019 to 2020 was 8%, primarily because of investments in efficiency (in energy and in the production chain). As per this report, the company has set targets for emission reductions in several areas, including energy transition to renewables. The number of these targets is not specified in the report. According to its Climate Change and Natural Resources Policy, the company has also invested in developing a 'low carbon ranching' process. This practice was developed in partnership with the Brazilian Agricultural Research Corporation (Embrapa). The report also indicates that the company reduced its energy consumption by 8,6% because of staff training and the adoption of more efficient equipment.

Lastly, the company stated that it has invested in transforming its energy generation, with renewable sources accounting for 15,2 percent of total generation in 2020.



CIRCULAR ECONOMY INITIATIVES

The water management initiatives are governed by the Climate Change and Natural Resources Policy. According to the report, the company's water-saving practices resulted in an 8,6% drop from 2019 to 2020. The company also sets a 20% reduction of water use for production per produced ton by 2035 (using 2020 as a reference). Since 2020, the company has adopted a set of indicators to assess the water stress in the locations where it operates in order to manage its water usage policies. It divides its activities into two categories: effluents and residue and solid waste to address waste management. The report shows that the company has modernized its effluent treatment stations and has implemented a set of indicators to track its progress to manage effluents and residue. Triage

and selective collection are used to control solid waste. The report indicates that its solid waste management aligns with the Brazilian National Policy on Solid Waste.



STAKEHOLDER ENGAGEMENT

According to the report, the company has been implementing geospatial monitoring from its properties and producers (suppliers) to track deforestation, forest fires, and possible land conflicts with local communities, especially indigenous groups. The relationship with indigenous communities also crosses its data with the Indian National Foundation (FUNAI) to identify possible producers involved in land strife. Irregular producers are blocked from the company producer roster. The company is also engaged in social initiatives for the development of local communities neighboring its activities. Its primary focus is on healthcare facilities and other social causes. To lead these initiatives, the company created the *Marfrig Fazer e Ser Feliz* Institute (focusing on vulnerable children), *Marfrig Sem Fronteiras* Project (to aid refugees), and *Hospital Amor* (a partnership with the hospital to give and facilitate donations).



SUPPLIER SUPPORT

The *Marfrig Verde+* Plan seeks to develop several financial instruments to encourage its protein producers (suppliers) to reinvest in their farms and production systems. These instruments aim to enhance the producers' efficiency to avoid further deforestation for business expansion. The plan also intends to provide technical support for its producers to share technologies and techniques to comply with the *Carne Carbono Neutro* and *Carne Baixo Carbono* initiatives.

Suppliers also have access to the Marfrig Club Program, which helps the reinsertion of producers who have difficulty complying with Marfrig's sustainability demands. The company also developed the *Conecta* Online Plataforma App, in which suppliers ought to feed their operations data, which is cross-examined by a geospatial monitoring program to identify irregularities. All the data is processed by blockchain technology

to maintain the transparency and security of the information. The process also aims to offer the producers a socio-environmental assessment of their operations as feedback.



HIGHLIGHTS

Tracking and Monitoring Program aims to monitor 100% of the supply chain to assess its compliance with the *Marfrig Verde+* Plan.



CHALLENGES

According to a report published in December 2020,²³ by the international organization Global Witness, three giants of the Brazilian livestock industry "cannot avoid the involvement of their production chains with large, deforested areas in the Amazon, and how this was not identified (...) by (...) well-known international auditing companies". Marfrig is one of them (and the other is JBS). As stated by investigations, between 2017 and 2019, both companies purchased meat from hundreds of farms involved in illegal deforestation activities, land grabbing, human rights abuses of indigenous peoples, and environmental activists. As a result, Marfrig has made significant investments in cutting-edge technology in recent years to maintain a tighter grip on its supply chains.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards / SASB / IIRC / UNGC (Since 2009) / SBT / CDP / Brazil GHG Protocol Program (Published inventories: 2012)



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 14001 / ISO 9001 / OHSAS 18000 / IFS / Collier FAIRR Protein Producer Index (Fourth place in 2020) / BBAFAW (score: Tier 2) / Rainforest Alliance Certificate

23. Available at: <https://www.globalwitness.org/pt/major-global-banks-complicit-widespread-destruction-amazon-rainforest-linked-brazilian-beef-companies-and-international-audits-flawed-pt/>

Company Name:

BrasilAgro

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 99.25 million

Overview:

BrasilAgro is one of the leading Brazilian agribusiness companies specializing in land and farm acquisition, commercialization, and farming. It was the first farming company to go public on the Brazilian and the New York Stock Exchange.



ENVIRONMENTAL ACTION

According to the report, environmental legislation compliance is a key component of the company strategy. Land acquisition is supposed to be followed by an intervention from the legal and environmental departments to implement a plan of action that incorporates all necessary adjustments to comply with the Brazilian environmental legislation.

Approximately 32% of the company's land in Brazil and Paraguay is under the Protected Areas Program by BrasilAgro (see page 62), which is committed to the biodiversity conservation and aligns with the company's Animal Rescue Plan. As part of its sustainable philosophy, new purchases in degraded lands are submitted to the Degraded Areas Restoration Plan.

The report also indicated that the company has been enhancing its procedures to prevent and combat forest fires. The Chico Mendes Institute for Biodiversity Conservation is behind this program.

In addition, the company also stated that it is currently establishing partnerships to map and measure carbon capture in its rural lands. The initiative aims to assess the viability of trading in carbon markets, although it still lacks a defined methodology for calculating emissions.



CIRCULAR ECONOMY INITIATIVES

The company implemented a Solid Waste Management Plan to cope with potential soil and water contamination derived from its operations. The plan relies on the administration of several facilities dedicated to different types of waste, and their discard is done in consonance with local communities to generate jobs and income for the region.



STAKEHOLDER ENGAGEMENT

BrasilAgro invested in social projects for the local communities in which it operates through its Social Responsibility Committee. These projects usually focus on education, sports, and community engagement. In 2020, the company created the BrasilAgro Institute, which leads company's social action promoted.

The report highlights the *Amigos do Bem* project that aims to educate and empower local communities through social projects from the company. The *Vida Nova*, *Escola Digna*, and *Casa do Zezinho* projects are centered on for children's sports, education, and cultural activities. The BrasilAgro foundation also supports the ADUS initiative, which assists and integrates refugees in Brazil.



SUPPLIER SUPPORT

The company report indicates that market conditions guide its agreements with suppliers, and they require suppliers' compliance with all mandatory environmental licenses. The company also specifies that it is currently developing control mechanisms to assess the environmental impacts caused by its suppliers throughout the supply chain in order to identify and deal with negative impacts.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards / UNGC (Since 2020) / SASB / FTS4Good / Amazon Defense Manifest 2020



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

BCI / Genesis Certification / Jaguar Friendly Certification / Better Cotton Licence

Company Name:

Cresud

Country:

Argentina

Capital Formation:

Private

Annual Revenue (2020):

USD 1.78 billion

Overview:

Cresud is a leading Argentinian company dedicated to farming and ranching with investments in Brazil, Paraguay, and Bolivia. The company also has a subsidiary company, *Inversiones y Representaciones Sociedad Anónima* (IRSA), dedicated to the real estate sector.

**ENVIRONMENTAL ACTION**

The company has environmental preservation programs that align with SDG goal 15. Cresud owns over 100.000 hectares of conservation lands and natural reserves, some of which were used in the reforestation program.

According to the report, the company is committed to reducing its carbon emissions by using solar power for its water pumps, power facilities for its employees, and wind power in its Santa Cruz fields. It also has donated solar panels for local community schools. Despite this, the company does not disclose its GHG emissions in the analyzed report.

**CIRCULAR ECONOMY INITIATIVES**

The Water Usage program aligns with SDG goal 6. It includes drip and sprays irrigation systems for water optimization and fertilization application.

For its Waste program, the company works with cooperatives and local recycling plants for its solid waste. Its warehouses are dedicated to temporarily storing containers, from which they are moved to recycling plants. The organic waste is destined to on-site compost bins, and the compost is used in orchards and in the fields to produce food for the employees or the company gardens.



STAKEHOLDER ENGAGEMENT

According to the company report, its CSR policy aligns with several UN SDGs, including lowering inequality, gender equality, responsible consumption and production, and water usage.

Its Institutional Relations department in charge of community engagement donates resources to local schools and hospitals and runs a voluntary program for projects to benefit local activities, such as a school reform initiative. In addition, the company promotes cultural and academic events.

In collaboration with the Institutional Relations department, the IRSA Foundation develops programs for local communities, concentrating on education and health. The IRSA Foundation has two other subsidiary foundations: the Puerta 18 Foundation, which focuses on developing technological skills for teenagers and Children Museum, which promotes cultural initiatives.

According to the report (page 53), the community-oriented management is carried out by the company's Institutional Relations department, which listens to these communities and provides individual responses to each one according to their demands. However, it is unclear what these communication channels are, whether there are open grievance mechanisms, and so forth.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 14001 / LEED

Company Name:

Arcor

Country:

Argentina

Capital Formation:

Private

Annual Revenue (2020):

USD 2.51 billion²⁴

Overview:

The Arcor group operates in three main sectors: consumer food production, agribusiness, and packing. They have a presence in more than a hundred countries and own over forty production factories across Latin America.

²⁴. Data available at: <https://www.arcor.com/en/financial-information>.



ENVIRONMENTAL ACTION

A program destined for energy efficiency and climate change presents four different initiatives: Reduction in Energy Consumption; Reuse; Replacement; and Use of Materials. The report does not provide numbers to determine the scale of their goals. Additionally, the company discloses its GHG emissions without specifying the metric/standard used for such calculation. As a result, recognizing emission types (direct/indirect or scopes 1, 2, and 3 emissions) is challenging.



CIRCULAR ECONOMY INITIATIVES

The Rational Use of Water program encompasses four initiatives: Use Reduction, Reuse and Recycling, In-Situ Pollution Control, and Effluent Treatment. The report does not display targets or previous accomplishments.

Regarding packing materials, the report states that their significant actions are related to Use Reduction, Replacement of Materials, and Recycling of Materials.



STAKEHOLDER ENGAGEMENT

Arcor created a new company-community relationship management model in 2019 that first identifies the main economic, social, and environmental consequences the company's impact has on the territory, and the environmental conditions in which it operates. Following that, plans are defined to increase resident capacity, create job opportunities, raise awareness of waste and natural resource sustainability management, and so on (pages 49–51). The relationship with indigenous communities is not mentioned in the report.



SUPPLIER SUPPORT

Vendors must sign the “Letter of Adherence to the Guiding Principles for a Responsible Management,” to be a part of Arcor’s suppliers’ team. The letter is based on the ten principles of the UNGP, the International Labor Organization, and best business practices. After acquiring a contract, the supplier is monitored to ensure compliance with the ESG guidelines is evaluated using Arcor’s supplier index. In this sense, some globally recognized certifications, such as BRC, FSSC, IFS, and Global G.A.P are required in GFSI matters. For its part, the company claims to carry a Sustainable Supply (pages 38–41).

The strategy promotes initiatives, projects, and programs focused on increasing suppliers’ productivity and efficiency, as well as identifying and pursuing social and environmental opportunities (like training courses). In an attempt to define such initiatives, suppliers are previously consulted to align demands and expectations and open channels of communication that are developed to maintain the relationship with Arcor. An example is the digital supplier portal.

Responsible Inclusive Purchases Program: it ensures that suppliers with fewer opportunities are integrated into Arcor’s supply chain.

Agri Sustainable Program: it traces suppliers and their activities to ensure quantity, quality, safety, and environmental and social responsibility in their products and operations.

REconocer Program: it promotes evaluating and managing suppliers’ risks and opportunities to set economic, social, and environmental strategies. This program follows four steps: “awareness (communication), training, monitoring & improvement (socioeconomic-environmental audits and development of improvement plans)” (pages 40–41).



HIGHLIGHTS

The company stands out for the number and types of programs aimed at consumer development, including, in addition to those already mentioned, initiatives such as the Cobra Project, which replaces manual harvesting for small producers. Another example is the Fruits and Vegetable project, which is dedicated to consistently enhancing the company’s farms and suppliers’ production. The report also mentions other initiatives: the Development of Sustainable Corn Producers, the Free Cage Egg supply, the Sustainable Supply Plan of Palm, among others.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards / UNGC (Since 2004) / SASB / BRC



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 9001 / ISO 14001 / ISO 45000 / OSHAS 18001 / FSSC 22000 / FSC / PEFC / GMP / TPM (2nd Level in Excellence in Consistent Commitment and 1st Level in the Implementation; by JIPM) / Food Safety Certification (BRC) / SQF / Global G.A.P

Company Name:

Nutresa

Country:

Colombia

Capital Formation:

Private

Annual Revenue (2020):

USD 3.23 billion

Overview:

It is a food-processing company with operations and distribution in over 12 countries in Latin America, the US, and Malaysia. The company operates 45 production facilities and offers a broad portfolio of more than 30 different products.



ENVIRONMENTAL ACTION

According to the Mega2020 program, the company's investment in protecting natural capital resulted in a 46% reduction of energy consumption per ton produced compared 2010. This result aligns with the company's strategy to become increasingly eco-friendly and achieve the goals set on its 2030 agenda. The report discloses scopes 1 and 2 emissions only (pages 48 and 49).



CIRCULAR ECONOMY INITIATIVES

The Mega2020 program also focuses on circular economy objectives. Again, using 2010 as a baseline, the company managed to reduce 23,5% of waste generation per ton produced, packing materials by 28,2% per ton produced, and water consumption by 33,3% per ton produced.

The report also stated that Nutresa Group has implemented a circular economy strategy in line with the collective plan 30/30 *Visión Colombia*.



STAKEHOLDER ENGAGEMENT

Throughout 2020, the company stated that it exceeded its corporate objective of 1.000 projects aimed at local communities. These ranged from healthy lifestyle programs to education, such as the *Obras por Impuestos* project, supplies. The Nutresa Foundation and the Nutresa Voluntary Network are in charge of the majority of programs.



SUPPLIER SUPPORT

According to the Integrated Report, Nutresa Group established several “strategic alliances” with clients and suppliers. Despite not specifying the programs, the group indicated collaboration with its supplier network based on an exchange of experiences and learning from its social programs and associative work to aid the suppliers in increasing its harvest and income. Alongside, the report also indicated collaboration with value chain customers based on sharing business tools.



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 45001 / OHSAS 18001 / GFSI / FSMA / World's most sustainable food company according (DJSI) / Gold category of the 2021 Sustainability Yearbook (S&P Global)



HIGHLIGHTS

Nutresa is a member of the G12 group, a group of companies that aim to advance Colombia's sustainability agenda in different themes, such as GHG emissions, biodiversity, and the circular economy of waste and effluents, primarily through the implementation of projects and initiatives in cooperation with the country's Ministry of Mines and Energy. In this sense, the company has set a strategy for 2030, based on the report, and climate change plays a key role in it. The sustainability component of its strategy includes reducing GHG emissions by 40%, energy usage by 25%, food loss 30%, and food waste by 50%. It also aims to convert 100% of its electrical energy from renewable sources; 100% of packing materials should be recyclable, reusable, and compostable; and 100% of its supplies to come from productive and sustainably sources.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards / UNGC (Since 2009) / IFRS / IIRC / TCFD / DJSI / S&P Global / WWF AA1000 International Standard

Company Name:

Daabon

Country:

Colombia

Capital Formation:

Private

Annual Revenue (2020):

Unavailable information

Overview:

Daabon is a conglomerate with holdings in agriculture and livestock, industrial manufacturing, logistics, and real estate. The wide range of activities is in line with the group's focus on vertical integration. The company is also notable for being the market leader in South America for organic ingredients with operations in over 15 countries throughout Latin America, Europe, the US, and Japan.

**ENVIRONMENTAL ACTION**

The Environmental Policy group highlights nine key principles: (1) guarantee entire compliance with environmental legislation along with further voluntary commitments; (2) prevent, mitigate, and eliminate negative environmental impact; (3) develop projects on High Conservation Value and High Conservation Value Forests; (4) preserve international and national vulnerable fauna and flora; (5) ban burning as a method of preparation of the land (despite declaring some exceptions); (6) do not use Genetically Modified Organisms within the group's productive chain; (7) ban animal testing; (8) ban the use of substances listed in Rotterdam and Stockholm Conventions; and (9) develop an environmental culture to be shared with the group's stakeholders.

The Group also developed an Environmental Management Plan that settles several policies and procedures for assessing and designing actions and responding to environmental concerns.

Regarding energy consumption, renewable sources account for 10% of the group's total energy usage.

According to the group's Greenhouse Gas Policy, all its companies are committed to capturing and reutilizing methane gas, using alternative energy sources, maintaining and conserving vegetation coverage in cultivation areas, and identifying areas devoted to conservation.

GHG emissions are not disclosed in the report.

**CIRCULAR ECONOMY INITIATIVES**

The group's Tequendama Extraction Mill treated 46,88% of wastewater, using a stabilization process that allows the production of biogas (from organic matter in the water) used to produce clean energy. From 2012 to 2018, 89% of the treated water from this facility was reutilized.

The Environmental Management Plans also have a waste management policy that must be followed by the group's companies and to the suppliers in the production chain. Their major initiatives are selecting and classifying solid waste, creating

appropriate infrastructure to manage the waste, reducing inputs with pollutants, and developing waste reduction technology.



STAKEHOLDER ENGAGEMENT

According to the group's Human Rights policy, all organizations within the Daabon group have to comply with several commitments regarding their relationship with local communities in the areas they operate to prevent impact in the following situations: (1) Possession of the property on the land; (2) Presence, use, and habits of ethnic groups or traditional communities settled in the territory (adherence to Customary Rights); (3) Presence in communities with vulnerable conditions; and (4) Essential Natural resources.

Consultations, participative dialogues, and diagnostic activities are all listed in their report as part of the engagement with local communities involves.



SUPPLIER SUPPORT

Current and new suppliers are required to go through the group's regulatory evaluation process. They must meet the following requirements: (1) environmental permits and licenses; (2) contingency plans by the relevant environmental authority; (3) INVIMA sanitary registry and certifications; (4) compliance with national regulation regarding the use of machinery; and (5) ISO/PAS 17712 Certification.

The report claimed that the group's companies developed several programs focused on developing local communities through education, food and security themes, entrepreneurship, education for peace, and alliances with small producers.



HIGHLIGHTS

The group collaborated with key stakeholders on several initiatives, including forming the Alliance of Small Producers and founding member of the Palm Oil Innovation Group, dedicated to fostering innovation and sustainable development in palm oil production.



CHALLENGES

After years of planting on abandoned land and being driven away by paramilitaries in the region, residents of the Las Pavas community in Colombia filed a court order in 2006 revoking official land ownership. Daabon immediately purchased over 1k hectares of these lands to grow palm oil, starting a legal conflict with the community. In 2009, the police removed 123 families (equivalent to about 500 people) from the region and demolished their homes and plantations of cassava, pumpkin, banana, and cocoa. The impediment to growing their food left the population in a humanitarian crisis, which brought manifestations from international Daabon customers, such as the British The Body Shop, which stopped buying raw material from the company. With harmful repercussions in the media and pressure from public opinion, Daabon ended the matter by selling these lands in 2011.²⁵



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards / UNGC (Since 2010)



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

RSPO-1106001 Certification / USDA Organic / ECOCERT N° 94016CO (JAS) / CERES N° 37551 (JAS) / Non-GMO Project / Global G.A.P. / Rainforest Alliance certification / Bio Suisse Organic Seal

25. More information about this case can be accessed on: <https://www.dw.com/en/palm-oil-future-biofuel-or-ecological-disaster/a-15907446>.

Company Name:

Bachoco

Country:

Mexico

Capital Formation:

Private

Annual Revenue (2020):

USD 3.42 billion

Overview:

Bachoco is a multiprotein food company that has been in the market for over 60 years, focusing with an emphasis on the production of chicken and eggs. It has more than a thousand production units spread across Mexico and the United States, including farms, processing plants, and distribution centers.



ENVIRONMENTAL ACTION

The company promoted programs in 2020 to help calculate its emissions but does not cite the standards or guidelines used nor discriminate them into scopes 1, 2, and 3. To reduce its GHG emissions, the company has invested in using clean energy. One such project was installing solar plants in 40 production units in 2019, almost 30% of which are already operational and will continue to expand in 2021. Likewise, there is an energy cogeneration program, using biogas instead of combustion and renewable fuel sources stemming from bio-digesters installed at the company's farms (which allows it to use part of this waste to create energy in a circular economy approach), hybrid vehicles, and the replacement of old refrigerated trailers (page 42).

The report does not mention reforestation projects or biodiversity conservation.



CIRCULAR ECONOMY INITIATIVES

To reduce freshwater consumption from the treatment and reuse of this resource, the company uses capillary leaching ditches or filtration ditches and also wastewater treatment plants (page 41). The report does not mention international standards or recycled water percentages.

The report only mentions one solid waste initiative: farm wastes to generate energy (above).



STAKEHOLDER ENGAGEMENT

The report's community relations section (pages 44–47) features five initiatives to assist local residents, mostly of which focus on food security. Additionally, the report acknowledges joint action with local government organizations and agencies but does not mention communication channels with these communities. Two examples of Nourishing Together include:

(1) The Bachoco Half Marathon funds provide food to children and young people in rural areas of the company's communities. They adapted this initiative to a digital transformation model during the pandemic, in which people could register how many kilometers they had run on an online platform.

(2) Institutional Donation Plan: Cash donations destined to health, education, and social support projects driven by civil organizations in local communities.

The report does not mention traditional/indigenous communities.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards / USDA



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

Safe Quality Food (SGS) / PAACO / BRC

Company Name:

Manuelita

Country:

Colombia

Capital Formation:

Private

Annual Revenue (2020):

USD 426,29 million²⁶

Overview:

Manuelita has been on the market for over 150 years and is a multinational producer of sugar, oils, fruits, and vegetables (the first two for food and energy markets), with direct operations in Colombia, Peru, Chile, and Brazil, and exports to over 40 countries.

26. This calculation was based on Manuelita's consolidated sales from 2018 with the exchange at the time of 1 USD = 3,247.50 COP.

**ENVIRONMENTAL ACTION**

The “atmospheric emissions control” section of the report addresses the reduction intentions and strategies but does not mention standards used in the calculation and only presents direct emissions, without mentioning the indirect ones and those related to scope 3.

Besides producing sugarcane bioethanol and palm acceptance biodiesel, Manuelita is working in partnership with the Colombian government to shift the country's energy matrix away from gasoline and diesel toward clean sources; the company also sells its surplus electricity produced. It also works to reduce 20% of GHG emissions by 2030. As a part of its day-to-day operations, the company also manages atmospheric emissions and energy rationally, and invests in capturing methane gas at the treatment plant's industrial dumping.

Manuelita is also committed to initiatives for the care and conservation of its own through organic planting, compost as natural seed, application of biomass, and fertigation in the fields.

In addition, Manuelita supports activities to protect the biodiversity of fauna and flora and promotes reforestation actions in Colombian regions.

**CIRCULAR ECONOMY INITIATIVES**

Regarding waste management and disposal, Manuelita is engaged in community social awareness projects and the internal awareness of employees in sustainability. It also maintains reuse plans in its production units (such as composting and used oils), and programs involving inorganic materials (such as metal scraps) (page 92).

The Master Plan for Irrigation in Manuelita Azúcar y Energía (Manuelita Sugar and Energy) in Colombia began in 2016 to improve irrigation infrastructure, increase efficiency, and reduce

waste in agricultural plantations. Between 2017 and 2018, the project advanced with new, more efficient technology, reducing water waste from springs to crops by 90% and modernizing the rainwater network, allowing for more accurate programming to meet crop needs (page 84). Furthermore, the company supports the initiative Fund for Life and Sustainability, which works to conserve and recover the hydrographic basins of the rivers that drain their waters into the Cauca River, thereby enhancing the quality of life of riverside communities.

Among its accomplishments in 2018, there was a rise in the isolated area surrounding the riverbanks, preserving of 23 new sources, and planting of more than 160k trees in the region, and so on (page 85).



STAKEHOLDER ENGAGEMENT

Manuelita's social actions in the communities under its influence focus on projects that address reducing health deficiencies (promoting access to health care and orthodontics), in education (promoting courses and bachelor's degrees), income generation (through workshops, entrepreneurship courses, and capacity-building initiatives) and housing (help in buying and renovating buildings), in addition to promoting cultural events in communities. The relationships and dialogue through which these actions take place are mainly through government entities, NGOs, and the private sector (pages 59–70). The report does not mention traditional or indigenous communities.



SUPPLIER SUPPORT

The company supports small agricultural suppliers by strengthening their production processes (providing technical accessories and updates to increase their productivity and profitability) and improving their environmental management (using and management of water, nutrition, sanitary management, and good agronomic practices of the crop, etc.). Two examples of such programs are *Cerrando Brechas de Productividad* (Closing Productivity Gaps) and

Sembrando Progreso (Sowing Progress). Further, the company also invests in education, health, improvements, and complementary income programs for suppliers and their families, promoting the sustainable socioeconomic development of these groups (pages 71–75).



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 9001 / ISO 14001 / FSSC 22000 / ISCC



Company Name:

Citrosuco

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 599.22 million

Overview:

The company specializes in orange juice and produces fruit and other derived products, such as essential oils and frozen hams. With a 20% global market share and 40% of all orange juice exported by Brazil, the company has international offices in the US, Belgium, Japan, Australia, Austria, and China. It exports its exports to over 100 countries.



ENVIRONMENTAL ACTION

Citrosuco’s emission estimations follow the Brazilian GHG Protocol Program²⁷ or the IPCC (page 45), and only scopes 1 and 2 are disclosed in the report. To reduce these emissions, the company has been investing in its operations efficiency. Examples include (1) various technological implementations involving artificial intelligence, geolocation, other technologies to make better use of the humid climate), (2) the use of less polluting transportation, and (3) investment in renewable and varied energies, mainly in terms of electricity, including the purchase of renewable sources and the export of the surplus produced domestically, and the use of biomass — Citrosuco’s energy matrix is comprising over 65% renewable sources in 2019.

Ventos do Piauí (Winds of Piauí): A wind power generation project in partnership with Votorantim Energia met 25% of Citrosuco’s industrial demand, with expectations to increase to 50% by 2023.

Biodiversity Protection and Conservation Plan: It protects 19,100 hectares spread over the Cerrado and the Atlantic Forest, biomes of the great value of fauna (including many endangered species), flora, and water resources (surroundings of springs, rivers, lakes, or artificial reservoirs). The project also encourages biodiversity mapping, environmental education, rational land use, and sound agricultural practices.



CIRCULAR ECONOMY INITIATIVES

Drip irrigation is used on 99% of producing farms as an efficient irrigation technique that delivers water and nutrients directly to the plant roots, increasing energy, fertilizer, and water savings (page 46). The fundamental sustainable measures in industrial operations are reducing consumption and reusing water from its treatment. Furthermore, all effluents, before their disposal, pass through the treatment plants. Regarding solid waste, 93% is an organic fertilizer.

27. Citrosuco is not part of the program; it only uses its methodology.

Recyclable materials are sent to third parties to be reused. Citrosuco has a plan to reduce the amount of waste sent to landfills, and to this end, it promotes actions such as “employee training (...), the adequacy of the waste center, reinforcement of environmental management in all stages of the production process and the monitoring and control of waste disposal.” (page 47).

Laranjeira Biomass Project: it transforms orange trees (at the end of their life cycle) into wood chips, a source of biomass. Not only a dynamic circular economy and energy use but also an additional income alternative for producers.



STAKEHOLDER ENGAGEMENT

According to the report, the company promotes socioeconomic development actions in the regions it operates (page 38), “based on dialogue and learning with local communities” and through civil society organizations. Programs for youth education, training, professional qualification, and social inclusion are promoted. In terms of stakeholders’ engagement, the company states (page 52) to have undertaken online consultations with its many audiences, such as local communities, consumers, workers, investors. The report does not mention a relationship with traditional/indigenous communities.



SUPPLIER SUPPORT

Trilhar Program: it comprises actions and tools to assist fruit producers form more sustainable agriculture through their engagement in an accurate analysis of the suppliers’ needs. In 2020, a diagnostic phase was conducted online; from 2021 on, action plans are being developed. The initiative began in 2012 with an agrochemical monitoring program through several phases, with ultimate goal of 100% sustainable production by 2030.

Additionally, in partnership with the Family Farming Rural Producers Cooperative, the company maintains a certification program

to strengthen family farmers by ensuring producers receive a minimum price. The program comprises 159 properties spread over 1,600 hectares (page 23).



HIGHLIGHTS

Citroapis Program: it consists of implementing beekeeping (breeding of bees) on orange tree farms, enabling the maintenance of this pollinating animal, which is essential for ecological balance. The project aims to spread to all farms by 2024 and use the profits from honey production for social projects.



CHALLENGES

In 2020, 18 workers were rescued from a Citrosuco farm supplier for working in slave-like conditions (no payments, debts, no safety equipment, and not even bathroom access). It was not the first time the Labor Tax Audit investigated the company for alleged slave labor: in 2013, the company was fined, and 26 people were released who had been confined and lacked freedom of movement.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / UNGC (Since 2021) / GRI Standards / SAI Platform



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

FSA-SAI / ISO 14001 / OHSAS 18001 / ISO 9001 / SGF / FSSC22000 / Rainforest Alliance / Fairtrade

Company Name:

Yacimientos Petrolíferos Fiscales (YPF)

Country:

Argentina

Capital Formation:

State-owned

Annual Revenue (2020):

USD 8.33 billion

Overview:

With a mixed economy and 51% of shares controlled by the national government, YPF is Argentina's leading energy company. It is dedicated to exploring, refining, and selling oil and its derivatives, standing out in Latin America with activities spread across Peru, Chile, Bolivia, Brazil, and Uruguay.

**ENVIRONMENTAL ACTION**

The following strategies have been implemented to boost energy production and efficiency from both of non-renewable (oil, gas, and fuel) and renewable sources:

YPF Luz (YPF Light): thermal and renewable electric energy generation (mostly wind, solar, and biomass), met 16% of YPF demands in 2019, exceeding Argentine law's requirement (pages 41–43).

Y-TEC: its annual budget of USD 30 million focuses on the R&D of innovative solutions to improve energy productivity and efficiency (pages 36, 50, and 51).

YPF Ventures: an energy and mobility startup accelerator for entrepreneurs at various stages of development.

Concerning biodiversity, the company has action plans covering two natural reserve areas in which it operates: Llanquanelo and Auca Mahuida, which together total 56,098 hectares (pages 63 and 64).

YPF uses three GHG international methodologies and standards to define its emissions targets: The API Compendium (2009), 2006 IPCC Guidelines for National GHG Inventories, and US EPA A-P42. The goals established in 2019 were to reduce 10% reduction in GHG emissions by 2023 (pages 41–43).

YPF is not a signatory to the GHG Protocol nor measures Scope 3 emission.



CIRCULAR ECONOMY INITIATIVES

YPF also implemented two pilot plans for advancing its goal of conducting a formal evaluation of efficient water use in 80% of its installations by 2030 (pages 57–59), in addition to scheduled stops and awareness campaigns to encourage greater reuse and less removal of freshwater from nature.

Although the company mentions some initiatives related to RRR schemes and creating a comprehensive project to rule circular economy actions across the company, waste generation increased in 2019, and the percentage rate of reused and recycled materials decreased compared to 2019 compared to 2018 (pages 65–67).



STAKEHOLDER ENGAGEMENT

Beyond coordinating public hearings and case-specific Environmental Impact Assessments to its activities, YPF designates field teams responsible for regular contact with these traditional and indigenous communities through different modes of communication and grievance channels, including written, digital, and face-to-face, beyond the coordination of (pages 94–97).



SUPPLIER SUPPORT

Aiming to engage its suppliers in sustainable practices, YPF promotes actions such as creating an EHS Monitoring Committee in 2018 and The Supplier Classification Process, both of which are responsible for analyzing suppliers' compliance with the company's guidelines and their eligibility to enter or remain in YPF's supply chain.

The YPF-supported Responsible and Inclusive Procurement project promotes access, participation, and contractual opportunities for supplier companies/organizations that employ vulnerable groups, creating a seal to identify these practices.



CHALLENGES

Over the years, YPF has had several problems with indigenous leaders in the company's territories, primarily due to land claims and conflicts caused by pollution resulting from the company's activities. These issues have sometimes led to government involvement and a more significant effort by YPF to open communication channels with what the company refers to as "official leaders" in the communities (pages 95–97).



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2005) / SDGs / GRI Standards / The Oil & Gas Industry Guidance by IPIECA / WCA / DJSI / API Compendium / US EPA A-P42



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

Transformadores de RedAmerica Award (2019) / ISO 9001 / ISO 14001 / ISO 50001 / OHSAS 18001

Company Name:

Tecpetrol

Country:

Argentina

Capital Formation:

Private

Annual Revenue (2020):

USD 890.89 million

Overview:

Tecpetrol is an energy company that explores and produces oil and gas in Argentina, Colombia, Ecuador, and Mexico. The company, headquartered in Buenos Aires, belongs to the Techint group, and indirectly participates as a business partner in Peru, Bolivia, and Venezuela.

**ENVIRONMENTAL ACTION**

Environmental impact and monitoring studies are promoted to establish specific habitat recovery actions for each area where the company operates: Mexico, Colombia, Ecuador, and Argentina. In 2019, a surface area of 360,674 m² was restored, and more than 4,000 plant species were planted (page 73).

The company mentions the annual planning to reduce emissions and optimize production processes (page 67), although the report does not mention specific targets of reduction nor the adoption of international metrics/standards for its calculation.

Central Eléctrica Pesquería: Pesquería Power plant focuses on efficient production and low environmental impacts to supply the facilities of two other subsidiaries from the Techint Group (Tenaris and Ternium) in Nuevo León, Mexico.

The report does not disclose Scope 2 and 3 emissions.

**CIRCULAR ECONOMY INITIATIVES**

Studies of sources of use and analysis of availability are carried out in operations with intensive water use, allowing the company to use gray water for specific purposes and to treat part of the water to be reused in other operations. These activities allow that 69% of the water used by the company in 2019 has come from reuse sources (pages 70–73).

Waste processing takes place through various techniques, including biological and chemical treatments, which enable materials to be reused and recycled (e.g., recyclable plastics, cardboard and metals, uncontaminated wood for donation). According to the report (page 76), the latter increased by 120% between 2018 and 2019.



STAKEHOLDER ENGAGEMENT

The company operates both with its initiatives and in support of the actions of the NGOs in three areas: education, art and culture, and community development. The last one stands out in the sense of being based on an interactive model, in which the opinion of the community residents benefited through the Community Relations sector of Tecpetrol that defined the priorities and the projects to be supported to comply with the local needs (pages 84–89).



SUPPLIER SUPPORT

The interaction with suppliers is described in its value chain as having two directions: one involving a relative control exercised as a contractor (primarily through contractual clauses and notifications), and other involving the assumption of responsibility to integrate the suppliers into the company's sustainable commitments in terms of ethics, safety, health, and environment (pages 56–57).

ProPymes Program: since 2002, it has sponsored by the Techint group's idealized program, which helps SME clients and supplier companies grow and develop, mainly through specialist consulting, staff training, and boosting the exportability of SMEs.

Global Supply Management: the division was created in 2019 and is responsible for incorporating new suppliers, assessing them, developing of its management and operational capacities, implementing corrective and preventive actions in the event of contractual deviations, and compiling information about the providers for the entire board of directors.



CHALLENGES

Oil spills, production water spills, spillage of chemical compounds and liquid fuels, and equipment and material failures are all common environmental accidents related to its operations. The report asserts that a significant amount of spills remained during 2019, with less than half the volume of the previous year (page 76).



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

GRI Standards / UNGC (Since 2009) / SDGs / IOGP



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

LEED / OHSAS 18001

Company Name:

Petrobras

Country:

Brazil

Capital Formation:

State-owned

Annual Revenue (2020):

USD 53.68 billion

Overview:

Petrobras, founded in 1953, is the largest company in the Brazilian energy sector, with a mixed economy model in which state owns the majority of shares. Its operations in fourteen countries are primarily focused on the exploration, production, refining, marketing, and transportation of oil, natural gas, and derivatives.

**ENVIRONMENTAL ACTION**

The company has a corporate program encompassing all its operational activities, including “reduction in natural base flare burning, reinjection of CO₂, gains in energy efficiency, and control of operational losses” (page 124). This program is monitored internally and by international instances (such as TCFD and CDP).

Petrobras is a Brazil GHG protocol program member and discloses scopes 1, 2, and 3 emissions in detail. From 2017 to 2020, numbers show annual drops in overall GHG emissions (page 125) and energy consumption (page 129)

Carbon intensity metrics have become a top indicator of variable financial compensation for Petrobras’ executives and all its employees, stimulating internal actions to adopt more effective and fewer pollutant approaches in daily operations.

The Biodiversity Action Plans (PAB) include mapping vulnerable areas and assessing impacts, monitoring programs, and R&D investment to reduce adverse effects and restore fauna and flora species (page 135).

The Petrobras Socio-environmental Program carries annual calls to support projects dealing with four UN SDGs: n° 4, 8, 14, and 15. In 2020, the program reached a reforestation/conservation of about 95 hectares, especially in traditional/indigenous lands (pages 131, 138, and 139).

**CIRCULAR ECONOMY INITIATIVES**

Water efficiency is a general principle of the company that has been reinforced in several actions in recent years and operates through targets (50% reduction in using freshwater by 2030), R&D investments, and internal and external monitoring (such as from the DJSI World and CPD) (pages 143–149). Water reuse practices have decreased overall freshwater consumption in recent years (pages 151 and 152).

In terms of waste management, the company has been developing circular economy initiatives since 2013. The most notable examples are the

processing of oily residual streams at the Shale Unit, which avoided 119 thousand oily wastes in 2020, and oil recovery operations at the Alberto Pasqualini refinery, which reused 12 thousand m³ of oily residual streams in 2020 (page 156).



STAKEHOLDER ENGAGEMENT

Local Social Responsibility Plans: it establishes long-term dialogues with communities affected by the company's refining, exploration, and production operations, including visiting social actors, committees, and face-to-face meetings, which morphed into online encounters during the pandemics. These dialogues define social actions such as capacity building and other initiatives.

Regional Social Communication Programs (PCSR): they listen to communities' demands through call centers and public hearings.

Petrobras promoted about 2,000 communication initiatives in 2020 (page 293).



SUPPLIER SUPPORT

Suppliers Performance Index: it evaluates suppliers' compliance with regulations, including Health, Security, and Environment (HSE) practices (pages 274–275).

Best Petrobras Suppliers Award: it is an award for acknowledging the suppliers' best practices, particularly the sustainable ones. Progridir Program: it reduces costs and accelerates credit concession for suppliers that meet Petrobras principles.

Social Fuel Seal: it is granted by the Brazilian government to companies that strengthen family farm to thrive. *Petrobras Biocombustível* (Petrobras Biofuel) gave family farms cooperatives a bonus of BRL 1,151 million in 2020, allowing them to use this amount to structure their production chain or transfer it directly for farmers (page 241).

More Value Program: it is a financial tool for suppliers and, during the Covid-19 pandemic, it anticipated payment for goods/services that were yet to be delivered by suppliers that met with contractual obligations.



HIGHLIGHTS

Petrobras manages a high number and types of socioeconomic development programs aimed at communities (including traditional/indigenous ones) and suppliers.



CHALLENGES

Oil spill accidents are a recurrent challenge for the company, as it tries to invest in better training, prevention, and repair techniques. However, these accidents are part of the activities and cause damage that is seldom repairable in their entirety, polluting the seas and affecting the fauna and flora of regions along the coast.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

GRI Standards / UNGC (Since 2003) / SDGs / OGCI / TCFD / CDP / DJSI / WWC / API Compendium (2009) / Brazil GHG Protocol Program (Published inventories: 2009, 2011 and 2019) / IPIECA



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

TPI / ASCM (2019) / ISO 14001

Company Name:

Terpel

Country:

Colombia

Capital Formation:

Private

Annual Revenue (2020):USD 4.44 billion²⁸**Overview:**

With over 50 years in the market, the company is specialized in the distribution and sale of fuels, lubricants, and natural gas. It operates directly in Ecuador, Panama, the Dominican Republic, and Peru.

28. Data available at the Wall Street Journal: <https://www.wsj.com/market-data/quotes/CO/TERPEL/financials/annual/income-statement>

**ENVIRONMENTAL ACTION**

Aligned with the Colombian government commitment under the Paris Agreement, Terpel commits itself to reduce its GHG emissions by 20% by 2030 (page 67), measuring its carbon footprint considering scope 1, 2, and 3 emissions.

The organization's initiatives around climate change do not involve deforestation or biodiversity activities. However, they are focused on technological investments (such as artificial intelligence) in energy efficiency and clean energy sources to self and suppliers' consumption, by monitoring suppliers' consumption and commercialization.

The installation of self-generation solar panels enabled a reduction of up to 31% of the conventional energy used in two service stations and two plants in 2020.

The Voltex brand provides electric charging services for electric/hybrid vehicles, significantly expanded in 2020, mostly in areas distant from urban centers. This service increased the access to clean energy mobility and allowed the Medellín-Bogotá route to be powered solely by electric energy (page 62).

In 2020, an agreement was signed for energy supply for the chargers of the first electric buses in Bogotá (page 62). In the same year, Terpel established a New Energies area, which intends to develop more efficient batteries in energy storage by fostering new enterprises in Colombia and neighboring regions. To promote this initiative, Terpel founded the affiliated Stem-Terpel, which has already completed three pilot projects using Ampere Energy batteries in the residential segment (page 64).

**CIRCULAR ECONOMY INITIATIVES**

The Comprehensive Waste Management Program of the company is responsible for the disposal of hazardous and nonhazardous waste products. The process is carried out following local laws, with personnel being trained and monthly monitored.

Additionally, Terpel has hired a company that recycles “cups, and plastic, paper, and cardboard packaging from the convenience stores and lubricants, in compliance with Resolution 1407 of 2018” (page 91).

In terms of water, the company claims to invest efforts in identifying consumption points and possible improvements and doing checks to optimize the resource. With the installation of the four Terpel water treatment stations in 2020, the resource to water gardens is treated and reused, reducing freshwater consumption while complying with the discharge requirements regulations (page 91).



STAKEHOLDER ENGAGEMENT

Terpel consulted internal stakeholders (such as workers and shareholders) through surveys to define its sustainable development priorities. However, the expectations and needs of external stakeholders (such as local communities, consumers, and civil society) were “gleaned from secondary sources such as the press and social media” (page 24). The company also based its priorities using international standards and regulations such as GRI, SASB, DJSI, UNGC, SDGs, OECD, ISO 26000, etc. (page 24).

The Terpel Foundation: it promotes the education for young people from low-income families in Colombia through five school programs focused on developing “skills in leadership, mathematics, and language” (page 100–104) in the communities where it operates. The report makes no mention of any specific actions for traditional communities or indigenous peoples.



SUPPLIER SUPPORT

All suppliers agree that they must follow the company’s code of conduct, including its HSEQ guidelines (page 94). Terpel prefers to buy from local suppliers (96% of total suppliers are local) and SMEs, evaluating their performance about environmental, HSEQ, social impact, and other criteria to motivate continuous improvement through contractual benefits. In 2020, only

0.14% of suppliers evaluated (according to two companies listed) in terms of environmental impact won these contractual improvements (page 96).

The organization claims to act with affirmative actions of responsible management of suppliers in its “operation, evaluation, training, and social and environmental development (...)” (page 25). However, the report did not identify any specific program or project for suppliers. As already mentioned, this statement is possibly supported by actions towards the whole local communities, which are home to most suppliers.



HIGHLIGHTS

The company defined itself as a “country partner” (page 29), which is symbolized in its participation in the G12 group. It materialized in its effective efforts to allocate parts of its traditional oil and gas business for sale, battery storage, distribution, and electric power charging stations for vehicles. In this respect, Terpel contributes to the infrastructure needed to promote the national strategy of transition to clean mobility, aligned with Colombia’s Energy Transition and Transportation goals set in its NDC.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

GRI Standards / UNGC (Since 2011) / SDGs (especially 7, 8, 13 and 16) / ISO 26000 / SASB / DJSI



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

14th place out of 116 in the ranking of the world’s most sustainable companies in the retail sector in the Sustainability Yearbook 2021 by S&P Global / 25th place out of 100 in the Merco Corporate Responsibility and Governance Ranking / ISO 9001 / ISO 14001 / ISO 45001 / OHSAS 18001

Company Name:

Ecopetrol

Country:

Colombia

Capital Formation:

State-owned

Annual Revenue (2020):

USD 13.76 billion

Overview:

Ecopetrol is the largest oil company in Colombia. The state owns 88% of its shares. Its oil sector activities span the entire value chain, ranging from exploration production, transportation, and refining to distribution and commercialization. The group has direct operations in Brazil, the United States, and Mexico and a significant export presence internationally.

**ENVIRONMENTAL ACTION**

The emissions calculations for Scope 1, 2, and 3 are based on ISO 14064-1 methodology and the GHG Protocol. Ecopetrol's climate change strategies follow the country's NDC and some international recommendations, highlighting the TCFD. It focuses on investments in technology and research, optimization implementation, energy efficiency, matrix diversification processes, and compensation alternatives.

Solutions on Carbon Capture, Sequestration, and Utilization, Biomass co-processing in refineries, and Green Hydrogen generation are illustrative of some of the company's leading technological solutions (pages 232–233). Another example is the construction of a mega solar park in Meta, Colombia, with 59 MWp capacity, and the 21 MWp of the Castilla Solar Park that came into operation in 2019 (page 230).

Tecpetrol also works with compensation approaches, including acquiring carbon credits and projects in biodiversity centers on Ecopetrol land operations. In this regard, the organization announced the planting of six million trees, 1.8 million of which were planted between 2018 and 2020 (page 13), an initiative called the "Wildlife Project" aiming the protection of several species since 2013, and other projects in partnership with third-party institutions, such as the "Fibers project" (page 251).

The biodiversity strategy also acts on prevention and mitigation fronts, notably in the absence of exploration, production, or refining activities in areas considered of great value according to the IUCN and World Heritage Sites by UNESCO (page 245).

**CIRCULAR ECONOMY INITIATIVES**

According to the report, 33% of the company's circular economy initiatives focus on waste, while 16% concentrate on water. The remaining percentage is divided between decarbonization, materials, bioeconomy, and culture (page 257).

Regarding water, strategies consist of reusing treated wastewater in drilling through reverse osmosis, optimizing processes in thermoelectric plants using production waters, and artificial wetlands to achieve zero discharge of domestic wastewater. One example of the initiative is the “Plans for Reconversion to Clean Technologies in Management of Discharges,” which has recently fulfilled the goal of total elimination of discharges to surface bodies at the Orito and Churuyaco production fields (page 216). In 2020, 65% of the total water used in the company’s operations came from reuse, equivalent to an 8% efficiency gain compared to 2019 (page 212).

In terms of solid waste used and recycling, studies and campaigns cover part of the strategy embodied by the following initiatives: building and demolition waste, water-based drilling cuts, dried water treatment plant sludge, wood, geomembranes, and non-operational pipes. Considering all reuse, recycling, and regeneration approaches, the percentage of use of waste for 2020 was 12 % (page 260).



STAKEHOLDER ENGAGEMENT

Ecopetrol conducts periodic consultations on the perceptions and expectations of stakeholders (consumers, workers, and other parties) in HSEQ issues, maintaining direct communication channels with them to receive requests, complaints, and suggestions. According to the report, the most dissatisfaction comes from the community and society, employees, pensioners, and their beneficiaries and suppliers (page 34).

In local communities, the “social investment has been strategically focused on the education, sports and health sectors, revitalizing local economies through inclusive rural development and entrepreneurship; public infrastructure; Access to Public Services and Institutional Strengthening” (page 164).

Ecopetrol’s protocol for conducting profitable operations and promote social activities, such as support and inclusion projects includes dialogue and the prior consultation with Afro-Colombian communities and indigenous peoples to carry out the company’s inclusion projects (page 192).



SUPPLIER SUPPORT

Ecopetrol has a methodology for evaluating the performance of suppliers, including in HSE matters (page 137). Moreover, the company also offers Diversity and Inclusion (D&I) programs aimed at its supply chain, counting on training activities and capacity building (page 186).



HIGHLIGHTS

Ecopetrol is a member of the G12, enforcing its commitment to helping the Colombian government advance its sustainability agenda as established in its NDC. Furthermore, the company has a small sustainability report specifically dedicated to publicizing its initiatives with SASB standards, facilitating comparison with other companies on these international metrics.



CHALLENGES

Among the company’s most vital challenges are accidents involving oil spills that harm fauna and flora (see page 252), besides the fines recently imposed at the Lisama 158 Well. Additionally, there are significant cases of conflict with indigenous communities (see page 194), ranging from complaints about the company’s operations on sacred ground for these communities without prior consultation to concerns about poor indigenous labor employment in exploited locations.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2009) / SDGs / WEF / GRI Community Member (Since 2012) / CDP / DJSI / SASB / TCFD / EITI / GHG Protocol / ISO 12064 / Zero Routine Flaring / CCAC



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

IUCN - WCPA / ISO 26000 / ISO 9001 / ISO 14001 / ISO 45001

Company Name:

Petroleos Mexicanos (Pemex)

Country:

Mexico

Capital Formation:

State-owned

Annual Revenue (2020):

USD 47.43

Overview:

Pemex is a government-controlled mixed economy with operations in over 20 countries. It offers products and services embedded in the hydrocarbon production chain, mainly in the exploration, production, and distribution of oil and other industrial transformation products.

**ENVIRONMENTAL ACTION**

According to the report, the emission reduction targets established for the 2019–2023 period are in line with the Mexican NDC within the framework of the Paris Agreement (page 3). The methodology for calculating GHG emissions combines internal techniques with the international standard US EPA A-P42, not providing scope 3 emissions (pages 11–12).

Energy Management Systems (EnMS) were installed in all 43 work centers, allowing energy performance control and improvement. For its operation, competent authorities trained 171 employees from all the production companies in the courses: “Analysis and interpretation of ISO 50001 (Energy Management System)” and “Training of Internal Auditors of the EnMS” (pages 16–17).

A significant percentage of the organization’s production and exploration operations occur in “tropical ecosystems rich in quantity and diversity of species, as well as natural resources, such as water and vegetation,” most notably in the coastal zone of the Gulf of Mexico. With new conservation laws in the protected regions, Pemex did not withdraw its activities, but neither did them increase.

Voluntary Conservation Area (ADVC): The company has allocated 600 hectares of land on its property with important biodiversity for the conservation and restoration of fauna and flora, environmental awareness, and education in certified spaces. Examples of these properties are the Jaguaroundi Ecological Park and the Tuzandépetl Ecological Park (pages 25–29).

**CIRCULAR ECONOMY INITIATIVES**

The company recognizes water reuse as the primary means of reducing the removal of freshwater from nature, which it accomplishes through its six treatment plants and by setting goals until 2023, with those for 2019 already met (pages 32–33). Regarding waste management, Pemex claims to promote “greater responsibility and participation in the prevention and recovery

of waste, through the implementation of policies and guidelines (page 44). These resulted in a 23% decrease in the generation of hazardous waste compared to 2018 and in the reincorporation of 8.6 tons of spent oil into operations, and 84.62 tons of waste were used through secondary recovery or energy production (pages 44–45). The analyzed report does not present annual percentages of RRR or its percentage relation to the total waste generated in its operations.



STAKEHOLDER ENGAGEMENT

Among the affirmative actions in the communities where the company operates are the donations of petroleum products (asphalt, gasoline, and diesel), the construction of Works of Mutual Benefit, the Community and Environment Support Program, and the Comprehensive Exploration and Production Contracts. For social projects, Pemex establishes mechanisms to inform and receive information through community meetings to evaluate the relevance of the actions, which includes receiving the formal request for the execution of programs from the beneficiaries, possibly claims/demands, and subsequent validation, with beneficiaries' representatives from different communities and other participating agents (pages 75–77). Education and sport, infrastructure, and environmental protection are examples of assimilated areas. The Social License to Operate is obtained by implementing a communication system in the communities for new activities and projects by organizing Social Impact Assessments and Environmental Impact manifestations, which include the impact on people, their culture, historical and archaeological sites, indigenous ceremonial centers and the like (page 79).



SUPPLIER SUPPORT

Regarding local purchases and supplier development, Pemex mentions two programs: (1) the Supplier Assessment and (2) Responsibility Program (PERP), which reviews suppliers' and contractors' facilities by an independent third party, and the Competitiveness Self-Assessment Business (ACE). The idea is that

the two can identify opportunities such as CSR, corporate quality and management, health and safety, human resources, and environmental management.

Overall, supplier development efforts align with Mexico's national policies in identifying areas of opportunity and strengthening purchases by the national oil industry.



CHALLENGES

Pemex had a very significant controversial media repercussion during the pandemic, gaining negative prominence due to the high number of deaths caused by covid-19 in its workers in 2020 and 2021. Media companies such as Bloomberg²⁹ and Reuters³⁰ commented on the precarious work conditions, the refusal to suspend operations, and excessive relaxation with the company's prevention measures and returned to face-to-face work. Due to its billion-dollar debt, which places Pemex as one of the most financially fragile companies in the oil sector today, the failure to comply with phytosanitary measures to prevent large drops in the company's production was attributed as the main cause of cases involving numerous workers in hospitalization and fatalities related to the virus.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / IPIECA / API / IOGP / US EPA A-P42 / IUCN / EITI



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 50001 / ISO 45001

29. Bloomberg story available at: <https://www.bloomberg.com/news/features/2020-09-10/oil-producer-pemex-has-the-most-covid-19-deaths-of-any-company-in-the-world>

30. Reuters story available at: <https://www.reuters.com/business/energy/mexicos-pemex-relaxes-covid-19-rules-orders-senior-staff-back-location-2021-04-22/>

Company Name:

Vista Oil & Gas

Country:

Argentina

Capital Formation:

Private

Annual Revenue (2020):

USD 271.24 million

Overview:

Vista, a four-year-old Latin American company, specializing in oil and gas exploration, owns shares on the Mexican Stock Exchange; however, its main offices are in Neuquén, Argentina. Although this company has direct operations in both countries, it is overwhelmingly concentrated in Vaca Muerta (Argentina).



ENVIRONMENTAL ACTION

The company's climate action strategies are divided into two phases. The first involves establishing a GHG emissions reference baseline that only covers scopes 1 and 2 (without scope 3 calculation) and considering the Paris Agreement as the decarbonization reference. The second entails measuring GHG emissions, reporting them, and developing a reduction plan. Since its inauguration, the organization has expressed its goal to end routine gas flaring and join the World Bank's Zero Routine Gas Flaring by 2030 effort. For the present, the company's main emission reduction approach has been to invest in infrastructure in the Bajada del Palo Oeste region, maximizing the transport of fluids through pipelines (now by 90%), avoiding the use of diesel in trucks carriage. Plans for incorporating clean energy or diversifying the energy matrix are not mentioned.

In 2020, the company started a biodiversity study in its areas of influence in collaboration with the National University of Comahue. In addition to the standard fauna/flora analysis, the study also included anthropological, archaeological, paleontological, and social perspectives to protect the local area. Furthermore, the company is developing an E-PAD, "a pad designed to minimize the impact on the natural environment during construction employing conservation and species preservation strategies at each stage of the process" (page 146). In this regard, the future Biodiversity Management Protocol will follow five steps: planning of clearing, relocation and/or rescue of native fauna, land clearing of the "pad-scarified" reducers, and monitoring.



CIRCULAR ECONOMY INITIATIVES

Water consumption optimization program: since 2020, the company has been working on a plan using artificial intelligence and machine learning technologies to reduce the amount of water injection required per unit of oil produced.

As a result, Vista maintained the same water usage consumption levels as in 2019 and 2020, reducing freshwater withdrawal by 13% (page

130). It is also worth noting that the company supplies approximately 7% of the freshwater from its producing wells to small-scale animal breeders who live on the lands of its exploration concessions. Further, all new operations are subject to Environmental Impact Assessments (EIA) and Water or Alluvial Risk Studies, designed to protect aquifers and local facilities following the region's inspection requirements (page 127).

As concerns waste, GRI 306 Waste indicators were used in addition to those produced by the company. Vista established a waste reduction strategy with different approaches. Regarding non-hazardous waste, the total metal waste generated during the operations is delivered to third parties for recycling within the steel industry, while 16 TN of wood was handed over to the community of Catriel Municipality. And about hazardous waste, a strategic alliance was formed in 2020 with a company supplier for the cuttings treatment and associated oil-based sludge, enabling partial the generation of an alternative fuel (RegenOil), marketed for energy use in cement kilns (pages 132–34).



STAKEHOLDER ENGAGEMENT

Employees, labor unions, and suppliers are among the main stakeholders with whom the company maintains standard dialogue channels with an emphasis on acting in the local communities. The latter has institutional support, education and training, wellness and sports, and social projects for emergency assistance. Such affirmative actions are determined by community validation in periodic meetings with local councils, unions, landowners, and other community players, which followed a virtual format in the coronavirus pandemic. According to the company, “there is no record of indigenous communities close to (their) operations nor records of claims or antecedents related to legal and/or territorial recognition of indigenous communities in (their) operational areas” (page 164).



SUPPLIER SUPPORT

To guarantee that suppliers and their contractors adhere to the industry's HSEQ requirements, the company conducts field visits, performance audits, and evaluations on a regular basis.

OneTeam Program: it maintains long-term strategic relationships with key suppliers, encompassing the commitment to adopting high-quality personnel safety training and equipment (with performance assessments involving the executive team and participating companies). Besides, this program encourages the sharing of best practices and helping to identify and manage risks to increase the efficiency and productivity of suppliers.

Local Supplier Development Program: It encourages local purchases to be planned to support regional businesses, helping local suppliers thrive, but only when regional legislation requires Vista to make a minimum percentage of local purchases. Based on this program, some assistance was provided throughout the pandemic. The renegotiation of contracts with better conditions for suppliers and the diversification of services/products acquired to mitigate the impacts of the crisis are examples of this support, as are the strategic commercial cooperation agreements signed with local organizations.



CHALLENGES

According to the analyzed report (page 131), the company experienced a high number of oil spills in 2019, which was reduced by 75% (in terms of volume) in 2020, as a result of several operational reformulations (such as changing pipes, systems reform, and implementation of more effective monitoring).



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

GRI Standards / SASB / UNGC (Since 2020) / SDGs / API

Company Name:

Vale

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 40.02 billion

Overview:

It is the world's largest producer of iron ore and pellets, which are essential steelmaking raw materials. In the production/extraction of iron ore, it operates in Brazil, Oman, and China, it also has additional operations and offices spread across the five continents.

**ENVIRONMENTAL ACTION**

Vale participates in the Brazil GHG Protocol Program, disclosing its scopes 1, 2, and 3 emissions and setting reduction targets (page 4).

Vale spent USD 81 million in energy efficiency and renewable electricity initiatives in 2020, including the use of bioenergy and the investment in R&D focused on the implementation of innovative technologies (page 106).

Vale actively participates in the biodiversity conservation on 905 thousand hectares occupied by third parties' operations, 80% of which are located in the Amazon, and protected areas in Mozambique, Malaysia, and New Caledonia (page 91). Agroforestry and agrosilvopastoral systems and the pilot project "R&D of Natives" are its main reforestation strategies.

**CIRCULAR ECONOMY INITIATIVES**

In terms of the dam management model, the company follows standards and protocols set by the ICMM, GISTM, MAC, and CDA.

Vale's Mining-Metallurgical Waste Management Policy: it sets general action guidelines, but each operating unit is responsible for adapting its activities according to its conditions. The PCBs Destination, the Heavy Recycling Initiative, and a pilot plant that transforms mining tailing into products for civil construction were built in 2020.

Water and Water Resources Policy: its goal is to invest in new studies and technologies to maximize the reuse of water. In 2020, USD 125.3 million was invested, resulting in an 8.7% reduction in specific water use that year.



STAKEHOLDER ENGAGEMENT

Grievance Mechanism: It is destined to establish collaborative plans with local communities through periodic visits and open forums, defining social activities and other area-related decisions.

Listening and Response Mechanism: a platform to qualify the sustainable relationships with local communities and assess its social performance worldwide.

Internationalization of Relationship Standards with Local Communities: it reports the number of communities involved in each country it operates in terms of relationship plans, projects/initiatives, interactions, and indigenous/traditional communities (page 151).

Comprehensive Reparation Plan: a program conceived in response to the Brumadinho disaster involving locals and the local government.



SUPPLIER SUPPORT

Supplier Performance Index (SPI): it evaluates and recognizes the best sustainability practices as part of the decision-making process for new hires and through the engagement of its suppliers to reduce GHG emissions through contractual clauses followed by an annual inventories questionnaire.

Inove Program: it provides financing, capacity-building, and business incentives to promote local suppliers and strengthen long-term relations in the productive chain.

InoveCapital: a platform in which suppliers may request anticipated payment of invoices for products and services contracted by Vale.

Supplier Kit of Vale: it offers the acquisition of goods and services in special conditions and discounts to its suppliers, such as corporate insurance and surety bond, various materials, industrial tools, and equipment.



CHALLENGES

Vale's name was associated with two major tragedies in Minas Gerais dam breaks marked the company's history: 19 casualties counted in Mariana in 2019, and 270 casualties (including 10 missing people) in Brumadinho, 2019. After many negative media exposures and widespread protests, Vale made more significant efforts to minimize the damage caused by its mining operations in the region, focusing on the dialogues between the company and the affected communities. The multinational has developed a Comprehensive Reparation Plan and has signed a US\$ 6.81 billion agreement with the government of Minas Gerais to implement social and environmental responsibility actions.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

GHG Protocol / GRI Community Member (since 2007) / IIRC / SASB / ICMC / SDGs / CDP / TCFD / Task Force on Scaling Voluntary Carbon Markets / Brazil GHG Protocol Program (Published inventories: 2009, 2011, 2012, 2014 and 2016)

*Due to the breach of the Dam Mine in Brumadinho in 2019, Vale was temporarily suspended from the UNGC (page 56).



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

A+ on GRI Standards

Company Name:

Ternium

Country:

Argentina

Capital Formation:

Private

Annual Revenue (2020):

USD 8.7 billion³¹

Overview:

Ternium, as Tecpetrol, is a member of the Techint group, and despite its focus on steel and metallurgy, Ternium has a fully integrated production system that starts from the mining of iron ore to high value-added products. The company owns most of USIMINAS's financial shares and operates 17 production centers spread out its headquarters in Argentina, Brazil, Mexico, Colombia, United States, and Guatemala.

**ENVIRONMENTAL ACTION**

Ternium's emission reduction target is based on the Paris Agreement, and the company discloses its GHG emissions in scopes 1, 2, and 3. To meet the company's target of 20% decarbonization by 2030 (using 2018 as the baseline) (page 14), actions are being taken that include the investment and implementation of innovative technologies to improve energy efficiency and lower carbon emissions during specific steel-making processes, as well as the development of renewable energy infrastructures to supply its operations (page 33). For example, a project to replace natural gas with biomethane generated at a nearby waste landfill resulted in a 12% reduction in gas at the Rio de Janeiro unit (page 37).

Ternium is also designing its product roadmap, collaborating with customers and suppliers to assess its carbon footprint of steel products, allowing it to offer these products with low carbon economy in its value chain (page 34).

Concerning biodiversity, the company supports the following initiatives (page 40):

The Sepetiba Bay: it has a large fauna & flora protection (including 600 hectares of mangroves) and a study from the Federal University of Rio de Janeiro on Boto Cinza, a species of dolphin that inhabits the bay.

Iberá Wetlands initiative: it promotes infrastructural support to an initiative that reintroduces extinct or endangered species in the Iberá Wetlands area.

Reforestation works at decommissioned iron ore: it resulted in 294,000 trees were planted in the last five years.

Field works aimed at biodiversity and wildlife: it focuses on lands that will be occupied by mining and production operations and ongoing management and monitoring.

31. Available at Ternium's 2020 sustainability report, page 7.



CIRCULAR ECONOMY INITIATIVES

The company invests in technology to improve its management and water discharge monitoring systems, reducing consumption, and promoting reuse/recycling, with specialized plans for each area of operation. In the last five years, Ternium has spent US\$ 66 million to improve the efficiency of these systems (page 36).

Regarding waste, the company's major strategy is to maximize the use of co-products from mining and steel activities, allowing for waste reduction while also reducing of raw materials and energy consumption (page 38).

Purchase and sale of scrap: along the value chain, the company not only recycles all the steel scrap generated in its operations, but it also purchases scrap from other companies for reuse. It sells waste to other companies, such as granulated slag to the cement industry and battery gases, which are converted into chemicals and sold to other companies.

Sintering and briquetting plants: they have air and water purification equipment that recycles various materials such as iron ore fines, coal, lime, and dolomite.



STAKEHOLDER ENGAGEMENT

The company's social programs in the communities where it operates are focused on four major categories: Culture, Volunteer work, Health, and Education, emphasizing the latter, particularly through the promotion of Technical Schools Programs and Scholarships. In terms of dialogues, the Roberto Rocca Technical Schools periodically evaluates student surveys to ensure that the program continues to improve and develop by the demands of its participants.



SUPPLIER SUPPORT

ProPymes Program: Ternium, like its sister company Tecpetrol, supports Techint's initiative to help SMEs client and supplier companies leverage their productivity, foster investments, and help them find better opportunities nationally and internationally by providing specialized consulting (in industrial, institutional, and commercial matters), personnel training, and financial aid. strengthening its value chain. In Argentina and Mexico, the ProPymes program incentives through events that bring together public authorities and other stakeholders, including a Supplier of the Year award given to SMEs with best sustainable practices. In Argentina, a ProPymes pilot program helps the companies evaluate environmental risks and opportunities and elaborate strategic plans, including roadmaps of climate change (pages 54-58).



CHALLENGES

Throughout 2017, the company was involved in confrontations and controversial courses with the synchronization of workers from many nations who gathered to protest working conditions and increased wages. Despite negative media coverage and the formal complaint announcement to the OECD, the company declined to negotiate improvements with workers at the time.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

GRI Standards / ISO 14404-4 / UNGC (Since 2019) / SDGs / IISI



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

Climate Action Recognition Program by Worldsteel in 2020 / ISO 14001 / OHSAS 18001 / ISO 50001

**Company Name:**

Nexa Resources

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 1.95 billion

Overview:

Nexa is a mining company that has been in the market for over 60 years, specializing in zinc production. Belonging to the Brazilian group Votorantim S.A (64.7% of shares), it has direct operations in Brazil and Peru and commercial offices in the United States and Luxembourg.

**ENVIRONMENTAL ACTION**

The company recently adopted the GHG Protocol to calculate its emissions (the report's index indicates the disclosure of indirect emissions, but there is no description using Scope 3 on the page indicated).

Nexa adopts several actions to reduce pollutant emissions, reduce and diversify energy consumption, including (1) the use of biomass boilers to replace combustion-powered ones; (2) the use of bio-oil to replace diesel in vehicles, both at the *Três Marias* unit; (3) the replacement of diesel, fuel oil and LPG with natural gas at the Juiz de Fora unit; and (4) the transport optimization actions in the Cerro Lindo area (page 78). The company also signed contracts with electricity supplier companies for its operations in Brazil and Peru from clean sources, totaling 98.5% of electricity consumption from renewable sources, in addition to investing in the installation of solar panels in the units of *Três Marias* and *Vazante*.

In addition to the environmental reserve "Legacy of Water" described in the highlights, dam control is a typical method mining companies use to protect the environment. To control and monitor the dams and tailings deposits, the company combines ICOLD's international guidelines with the company's Six Golden Rules. Monitoring, inspection practices, and evacuation simulations in case of accidents are its usual measures (temporarily suspended due to the pandemic). Moreover, Nexa promotes greater transparency about the management and dams; for example, it has its geotechnical stability reports for dams available online at <https://nexabarragens.com.br/>.

**CIRCULAR ECONOMY INITIATIVES**

As a standard initiative, the organization has an efficient water use policy that, in 2020, exceeded the 75% water reuse target set for 2025, reaching 82% reuse. Additionally, the company promotes social and environmental projects such as People Caring for Water, which promotes environmental education for young students with BNDES financing, and The Good Water that

supports the sanitation of Brazilian and Peruvian municipalities close to Nexa's operations. Furthermore, the company is committed to a five-year project to recover 134 headwater sources from the Santa Catarina River, 27 of which were safeguarded in 2020 by installing monitoring points and protective fences (pages 75 and 84).

Regarding waste, the company's initial goal is to reduce the disposal of tailings in dams and the specific generation of mining and metallurgy waste by 50%. The development of studies to improve the circular economy of waste recovery and reprocess (see *Cerro Lindo*, *Morro Agudo*, and *Vazante* projects, on pages 76 and 77) and the establishment of a recycling unit in the municipality of Juiz de Fora with recycling targets are among its standard actions.

The Mining Lab: it supports research institutions and startups that develop technological solutions for the transformation and reuse of mining waste.



STAKEHOLDER ENGAGEMENT

Along with the standard communication channels for relationships with its different stakeholders (employees, suppliers, investors, etc.), the corporation promotes social actions for developing local communities. In this regard, several projects are articulated with an emphasis on training, professionalization, and entrepreneurship among community residents, such as the projects *Vicuña Chain*, *Community in Action*, and *Qualificação* (see page 82). Two projects to involve local communities and encourage social participation in the definition of local policy deserve to be highlighted: the 2020 Social Agenda and the Dialogue! Três Marias, both conducted via periodic online meetings throughout the pandemic, allowing for debates, collective bargaining, and alignment of expectations on issues such as the future of communities in the pandemic and consultation on the implementation of social projects in the HSE areas. Only one company operates on indigenous territory, and it has established formal agreements with the adjacent communities to operate (page 115).



SUPPLIER SUPPORT

Nexa conducts a Supplier Assessment Program every four months on health, safety, and the environment topics to evaluate its strategic suppliers. Additionally, in 2020, the company revised its supplier management process, responsible for contracting suppliers based on tracking information such as inclusive management, environmental certifications, specialized challenges such as waste disposal, etc. On the other hand, the organization provided increased transparency and compliance with this management, offering training on the topics covered.



HIGHLIGHTS

Legacy of Water: innovative project that combines the protection of water and biodiversity in Brazil's largest private reserve in the Atlantic Forest (31 thousand hectares) with a business model that uses the space for ecotourism and scientific research, promoting the socioeconomic development of riverside communities in the region.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2017) / SDGs / GRI Standards / IIRC / IFRS / SASB / GHG Protocol / ICOLD



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 14001 / Oxide quality seal by IZA

**Company Name:**

Mineros

Country:

Colombia

Capital Formation:

Private

Annual Revenue (2020):

USD 495.34 million

Overview:

Mineros has direct exploration operations in Colombia, Nicaragua, and Argentina, and is dedicated to extracting and producing gold and other metals. The company has a strong market presence in the United States, Canada, and the United Kingdom, the leading destinations for its exports.

**ENVIRONMENTAL ACTION**

The approach to be used for climate change actions was created using a combination of Colombian government standards with TCFD international standards to create the methodology to be used (page 53). As a result, emissions were calculated, and their limits were defined according to each country's local legislation, disclosing scope 1 and 2 emissions only.

As effective measures to reduce pollution and GHG emissions, Mineros invested in installing structures for self-generation of energy from clean sources in two of its units, apart from measuring its carbon footprint and issuing forest credits. Additionally, the company carried out awareness campaigns on energy savings, switching to LED lamps, installing photocells in common areas, replacing air conditioning systems with more efficient technologies in its production units.

With forests under some of its mining operations and hydroelectric energy production areas, the company has invested in select basins, such as the Nechí River, to preserve the regions. The primary forms of the control adopted are installing meters and cameras with weather alerts, investments in improving reliability, data visualization and analysis, and the construction of dikes to protect operations (page 54).

Mineros also conducts environmental impact studies and analyses of endangered species in compliance with IUCN international standards. The company's biodiversity protection strategies include driving away, rescuing and transferring wild animals, rehabilitating intervened areas, forestry credits, fauna and flora monitoring, and environmental education and reforestation campaigns. Since 2018, around 370,000 native species have been planted (page 65).



CIRCULAR ECONOMY INITIATIVES

Regarding water management, Mineros employs domestic and industrial wastewater treatment systems, water recirculation systems, monitors its quality, and develops efficient water use and saving programs. Between 2019 and 2020, the company reduced its discharges by 28%, reusing 912,818 m³ of water (pages 58–62) through implementing of circular water-saving strategies.

The company adopts, as a standard optimization and waste management strategy, the reuse of some basic materials, such as pipes, wood, etc. In the Colombia and Nicaragua operations, used metal containers are sterilized and placed in ecological sites for solid waste segregation, while surplus industrial oils are disposed of and treated by third-party companies (page 57). Mineros also promotes educational programs to enhance the proper waste disposal awareness among workers and local residents, besides generating local jobs (small circular economy approaches) with the commercialization of recyclable residues (page 70).



STAKEHOLDER ENGAGEMENT

During the pandemic, Mineros implemented social programs aimed at rural communities, including Indigenous and Afro-Colombian communities, providing donations (of food, personal hygiene, etc.) and raising protective measures awareness.

On a regular basis, the company also contributes to the community socioeconomic development where it operates through a series of programs and initiatives to support entrepreneurs, agricultural workers and prioritizing local purchases. Likewise, it promotes infrastructure the development (such as general repairs and construction of aqueducts) and educational, sports, and cultural programs. Concerning the participation of the beneficiaries of these actions, it is worth noting that “regarding community complaints and claims, a total of 136 were closed, leaving five pending, with a response period less than 30 days” (page 47). The company claims to

be made important advances in its relationship plan with indigenous communities in 2020, although the means of communication and dialogues used in these interactions were not specified.



SUPPLIER SUPPORT

In each country where Mines operates, contractors and vendors are evaluated according to environmental, legal, security, and Human Rights criteria. These include updated environmental authorizations, an environmental management system, and the absence of any sanctioning proceedings by environmental authorities. To support suppliers, the company has a preference policy for companies and contracts with local suppliers (65% in Nicaragua, 94% in Colombia, and more than 90% in Argentina) and sporadic training to improve their technical qualities, competitiveness and human development of its staff.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2012) / SDGs / TCFD / IPCC



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 14001 / OHSAS 18001

**Company Name:**

Grupo Mexico

Country:

Mexico

Capital Formation:

Private

Annual Revenue (2020):

USD 10.91 billion

Overview:

Grupo México, the country's third-largest company by Annual Revenue (2020), has operations in its home country, United States, Peru, Argentina, Chile, Ecuador, and Spain. Its main activities in the mining sector are focused on copper production, but it is also active in the transportation and infrastructure businesses.

**ENVIRONMENTAL ACTION**

The company's scenarios and several action fronts to combat climate change are consistent with TCFD recommendations, while its emissions are measured by the GHG Protocol guidelines and include the disclosure of scope 3 emissions. Energy development is one of the projects and initiatives the company has undertaken to reduce its carbon footprint. Among the examples given above are investments in hydroelectric power generation and wind energy for self-supply and the renewable energy consumption from third parties.

In 2021, biodiversity management was redesigned throughout the company's operations in accordance with the ICMM Good Practices in Biodiversity Guide. Among the initiatives to support the ecosystem are reforestation (4,350,363 trees were planted in 2020) and the animal protection (particularly for species on the IUCN Red List), and the continuous monitoring of areas that are commonly affected by mining activities. Additionally, there is a focus on preventing dam accidents (which typically result in severe environmental damage) by monitoring and fast response simulations.

**CIRCULAR ECONOMY INITIATIVES**

Regarding waste management, the company's standard policy identifies and measures the waste produced to improve its management by preventing and reducing waste before treatment and final disposal. In 2020, 66% of the non-hazardous waste generated was destined for a process of recovery by third parties, and 4% of the hazardous waste had the same destination.

For 2021, the water management policies are being updated under the ICMM Water Management Guide. In 2020, 74% of the water used by the company resulted from reuse, owing to the implementation, Instrumentation, and

maintenance of closed circuits and recycled water pumping systems in mining operations (page 213). One strategy to make water consumption more efficient is to use technologies for monitoring and recirculating water in processing activities and tailings deposits and using wastewater to restore degraded surfaces.



STAKEHOLDER ENGAGEMENT

The company promotes participative social diagnosis in its operating units and communities to identify risks, problems, and opportunities that contribute to develop its Social Management Plan. Social programs and affirmative actions of many kinds (training, education, entrepreneurship, art, culture, leisure projects, etc.) are regularly updated according to the direct participation of their beneficiaries. In this respect, there is a Community Hotline (developed with the assistance of the OHCHR office in Mexico), where community members, employees, and suppliers can ask questions, make complaints or demands (pages 127–128). The company also builds engagement programs in the indigenous communities such as an ethnographic study conducted in 2020 that included interviews, workshops, and participatory groups that allowed direct dialogue with these local residents. Due to diligence, processes generally have meeting points, such as stations, regional offices, social actors, and local authorities.



SUPPLIER SUPPORT

In terms of the supply chain, México Group prefers purchases from local vendors (92%). The company requires compliance with ESG guidelines and promotes external audits with certificates to ensure that its suppliers have sustainable practices. Moreover, projects aimed at local communities often also reach suppliers, such as the “Forging Future” project, which focuses on training neighboring communities and their suppliers in the region.



CHALLENGES

The company's history was marked by the Buenavista del Cobre mine tragedy in 2014. Which was possibly the most severe environmental calamity ever caused in Mexico. Ten million gallons of copper sulfate and heavy metals were spilled into two rivers in the region, directly affecting 24,000 people in seven different municipalities, causing health problems for at least 360 people. According to a Forbes article from 2019³², a UN report showed partial and unsatisfactory compliance with the measures that the company agreed on three years after the event.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

GRI Standards / SDGs / SASB / TCFD / DJSI / FTSE4Good / EITI / SME / CDP / S&P Global / ICMM / IUCN / CHR / IPCC



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISSO 14001 / ISO 45001 / OHSAS 18001

32. The article is available at: <https://www.forbes.com/sites/doliaestevez/2017/07/27/un-singles-out-tycoon-german-larreas-grupo-mexico-for-unfulfilled-pledge-in-ecological-disaster/?sh=250b216948eb>

**Company Name:**

Industrias Peñoles

Country:

Mexico

Capital Formation:

Private

Annual Revenue (2020):

USD 4.67 billion

Overview:

Peñoles is a mining industry with more than 130 years, currently active in metallurgy and chemical activities. Some of its standout products are refined silver, gold, and zinc. The company is headquartered in Mexico and operates throughout the country, the US, Brazil, Peru, Chile, and a global consumer market.

**ENVIRONMENTAL ACTION**

The methodology used to calculate emissions mixes the international standards of the GHG Protocol, WRI, and IPCC with Mexican legislation and does not disclose scope 3 emission.

The primary strategy for reducing emission is to use electrical energy from clean sources for self-supply and natural gas. In 2020, a new wind farm was inaugurated with two existing ones, increasing the use of electricity from renewable sources to 40%. In general terms of energy consumption, energy sources accounted for 14% of total consumption in the year analyzed.

In line with the country's NDC, two company units (which correspond to almost 80% of Peñoles' direct emissions) will participate in a pilot test of an emissions trading system for Mexico, created under the current General Law Climate Change Mexican (page 56).

The company has no activities in reserves or natural areas within any particular conservation category. To guarantee legal compliance, before starting any mining operation, the company conducts a study of the potential impacts in the region and advances potential measures to compensate them and carry out activities to relocate animals and plants to safe places. Soil conservation and water infiltration measures are also taken to compensate for the erosion caused. In addition, Peñoles has two spaces dedicated to the restoration of wildlife and carries out reforestation movements, both by donating seedlings to nearby communities and by planting on its land (almost 5,000 trees and shrubs were planted in its installations) (page 67).

Regarding tailings dams' safety, some units of the company have implemented a local governance structure that incorporates the positions and duties of the dam owner — that is, the person in charge — and the registration engineer, representing the impetus for Peñoles' alignment (at least partially) with important international standards such as ICOLD, CDA, MAC, and ICMM.



CIRCULAR ECONOMY INITIATIVES

The company's main water optimization strategy consists of the use of closed circuits that prevent discharges, water treatment, and the installation of monitors to measure and control the consumption of this resource in its units. The company estimates that, in 2020, 46.3% of the water used in its operations came from recirculation, which means savings of 14.83 million cubic meters of blue water (pages 60–62). If wastewater treatment is included, this number jumps to 71% (page 51).

In terms of waste, the company's first option is to find internal reuse alternatives, with external recycling as a last resort. In this sense, 21.94% of waste disposal is recycled internally, against 0.04% recycled by third parties (page 64). Furthermore, by-products and toxins that cannot be recovered are disposed of in compliance with local legislation.



STAKEHOLDER ENGAGEMENT

Based on social diagnostic procedures, the Social Management Plan promotes community participation in defining what affirmative actions will impact them. This plan involves project agents, community residents (usually made up of employees and suppliers), traditional/indigenous societies, local authorities, and other social organizations in the region. This dynamic includes grievances and requests (in 2020, Peñoles responded to 29 complaints from local communities, 28 of which were dealt with, and one is in progress), suggestions, and impact assessments on the company's local actions. Among the means of interaction are creating local committees, surveys, institutional communication through mass media, fairs, campaigns, and others. In this way, the organization defines its social actions (which include education, environment, self-development, family, and infrastructure projects) and remedies in case of complaints (pages 89–107).



SUPPLIER SUPPORT

Peñoles' suppliers are hired and periodically evaluated to maintain their contracts under the company's standards, including sustainability issues related to the environment, workers' rights, and others. In this respect, the company has a catalog of reliable suppliers and carries out periodic visits and audits. The organization offers its suppliers training workshops and assistance in various matters, ranging from sustainable topics to better management. A project launched by Peñoles with Fundación ProEmpleo to build capacity in seven communities resulted in creating nine small companies incorporated into the supply chain areas, such as personnel transport, cleaning, and food service (page 101).



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2006) / SDGs / SASB / FTSE4Good / GHG Protocol / WRI / IPCC / ICOLD / CDA / MAC / ICMM / RedEAmérica



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 14001 / ISO 45001 / ISO 9001

Company Name:**CBMM**

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):USD 1.36 billion³³

Overview:

CBMM is a multinational corporation specializing in niobium production, being the only company with a presence in all sectors of the market for its metal, supplying between 70% and 80% of its worldwide demand. In this regard, CBMM has subsidiaries and offices in China, the United States, the Netherlands, Singapore, and Switzerland, as well as activities ranging from mining to research and development of new niobium applications.

33. Available at CBMM's 2020 sustainability report, page 20.



ENVIRONMENTAL ACTION

Regarding its emissions, the company has been a signatory of the Brazilian GHG Protocol program since 2013, calculating scope 1, 2, and 3 emissions, which are evaluated and monitored by external audits. The organization encourages optimized energy use in its own facilities and subsidiaries by annual monitoring to prepare its reports. CBMM gets all its electrical power from renewable sources, mostly hydroelectric energy. Other initiatives to minimize gas emissions and air pollution include the use of conveyor belts to reduce truck traffic, electric or ethanol-powered vehicles, and water to rinse machinery during mining activities (avoiding dispersion of particles in the air). Additionally, CBMM has been carrying a solar power generation study whose feasibility will be assessed after the pandemic.

CBMM protects biodiversity by implementing management and reproduction projects for Cerrado's fauna and flora and investing in research, development of solutions, and socio-environmental education in the communities where it operates. The company maintains an Environmental Development Center on six hectares of its industrial park, which houses the research institute, the education center, and protected species (both animals and plants), several of which are rare or endangered.



CIRCULAR ECONOMY INITIATIVES

Recycling and reusing blue water are a part of the company's daily operations as a strategy to reduce blue water use. In 2020, reuse accounted for 96% of the water consumption. The company has a water treatment plant where the total volume of liquid is processed before disposal.

In terms of waste, the company claims to be as efficient as possible in its maintenance, encouraging the internal recycling of materials and co-products (page 70).

EDR9 Project: it is still in the early stages of environmental licensing, but it consists of a more efficient tailings disposal system, allowing for more dense disposal of fine tailings, reducing water use and, consequently, lower pressure and risk of dam accidents.



STAKEHOLDER ENGAGEMENT

The company's contributions to the regions' socioeconomic development are mainly linked to the direct generation of jobs and support for educational, cultural, sports and health projects through donations, sponsorships, and investments. In this sense, the company responds to requests and support and evaluates them with a technical committee's help, but it unclear exactly how these requests are submitted. Regarding activities and development of public policies, actions take place through forums (such as the Mineral Forum, the Research and Development Forum, and the Araxá Environmental Policy Council) and with the municipal government's involvement to implement social projects in local communities.

Sustainable interaction with associations is also a common practice in sharing research and good practices in using niobium. The report makes no mention of traditional/indigenous communities.



SUPPLIER SUPPORT

According to the analyzed report (page 53), purchases of raw materials and inputs are evaluated based on their traceability and the negative impact of these activities on its value chain. By this logic, key suppliers must have quality certifications and annual audits that prove their commitment to CBMM's policies. Further, by 2021, the report mentions Implementing structured monitoring of the suppliers' environmental activities in the SAP Ariba System to evaluate their performance in

good practices and encourage improvements (page 9). The company offers training (especially in health and safety), to assist them in developing and improving their operations. Since 2019, the organization has adopted a new relationship structure with its suppliers, prioritizing long-term contracts and evaluating their performance using the SAP/R3 monitoring system.



CHALLENGES

A water table near one of the company's dams became contaminated with chemicals in 1982, affecting the water quality and, consequently, many people's lives in the region. CBMM implemented a set of mitigating measures to address the situation but did not complete the environmental remediation process agreed with regional governmental and judicial authorities³⁴, renegotiated in 2018. According to the analyzed report, the company's last cooperation agreement with the State of Minas Gerais government and other companies to protect Barreiro Hydromineral Resort in Araxá is still being monitored and treated to this day.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards / IIRC / Brazil GHG Protocol Program (Published inventories: 2013, 2014, 2016, and 2019)



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 45001 / ISO 14001

34. Find the official note from the Minas Gerais Public Ministry: <https://www.mpmg.mp.br/comunicacao/noticias/mpmg-firma-acordo-com-a-companhia-brasileira-de-metalurgia-e-mineracao-para-reparacao-de-danos-causado-ao-meio-ambiente-em-araxa.htm>

**Company Name:**

Iochepe-Maxion

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 1.61 billion

Overview:

Within the automotive sector, the company is one of the global leaders in wheel manufacturing and a market leader in structural components throughout the Americas, notably in the USA, Canada, and Mexico. Its 32 production facilities are spread across 14 countries worldwide, across the Americas, Africa, Europe, and Asia.

**ENVIRONMENTAL ACTION**

In the analyzed report, the company cites the national legislation on the automobile sector increasingly demanding to reduce GHG emissions (mainly CO₂). It is one of the critical factors for adopting more efficient and eco-friendly management (page 32). The company's goal for 2020 is to measure 100% of its CO₂ emissions (scope 1, scope 2, and scope 3 emissions), but the 2019 report only calculated and disclosed scopes 1 and 2.

To increase overall efficiency, the company is guided by two main standards: the Brazilian legislation and the local legislation of its manufactures (which is reflected in its sanitation, environment, and quality safety policy), and its system of management developed, broadly guiding the management of resources, including HSE practices (page 53). One of the company's initiatives is to invest in research and innovation (including Industry 4.0 technologies) and lower the weight of auto parts to reduce vehicle fuel consumption (page 36). The organization also maintains partnerships with "start-ups, research institutes, universities and other multinational corporations on ideas at an early stage" (page 32).

Regarding energy efficiency, Iochepe-Maxion is "currently developing a project to integrate all electricity meters and, in this way, enables the sharing of electricity costs by identifying the consumption of each stage of the production process, a procedure performed by software" (page 55). The company has replaced conventional light bulbs with LED in its manufacturing units and promoted employee-led campaigns to encourage conscientious consumption. The report does not mention reforestation or biodiversity strategies.

**CIRCULAR ECONOMY INITIATIVES**

Internally, the company's effluent and waste management are monitored and audited using its management system patterns, with data supplied sent to environmental authorities (CETESB and IBAMA) and then externally audited under ISO 14001/OHSAS 18001 certification

processes. The company has an Environment Committee responsible for monitoring the company's sustainable waste management. In 2019, the committee launched the campaign "Conscious disposal of waste", which taught of the company's circular economy measures consist of reusing packaging or returning it to its

original destination, reducing non-reusable materials consumption, lowering garbage sent to landfills, ensuring correct disposal, and employing reuse measures. Hazardous and non-hazardous materials are sorted and sent to recycling and recovery (in the case of hazardous) destinations, and the use of less polluting materials in the composition of the parts is prioritized. Besides, the company runs an oil treatment plant, which refines all the materials collected at the unit.

Regarding water management, the company has a treatment plant that was expanded in 2019. The plant handles all the operation's wastewater, including sanitary and industrial waste. The company has strategically located water meters to measure drinking and industrial water consumption, with a 2% reduction target for 2020 compared to the reporting year.



STAKEHOLDER ENGAGEMENT

Regarding engagement with stakeholders, the company regularly performs employees and customer surveys to enhance its operations in quality and safety.

In 2019, the company established a complaints channel for company employees (an anonymous hotline), which yielded 43 complaints resolved in the same year (pages 27 and 72). The Structural Components division has an open channel for clients who wish to contribute to HSE solutions. Concerning the company's social projects, they are mainly directed at employees and residents of the communities where it operates. Iochpe-Maxion promotes corporate citizenship initiatives, ranging from good operational practices to the prevention, reduction, or mitigation of environmental impacts to actions for the community socioeconomic development, notably in technical education and community employees the matter. Some assistance, some in partnership

with the Iochpe Foundation. Despite mentioning an "ongoing dialog" (page 49) in its relationship with communities, no communication or interaction channels are given. There report does not mention of traditional or indigenous communities.



SUPPLIER SUPPORT

To a large extent, the suppliers' engagement is motivated by the demand of Iochpe-Maxion's customers (companies in the automotive sector), who are, in turn, demanded by local legislation to comply with an increasing number of sustainable standards that encompass the entire production chain of the mobility industry. In this sense, the company manages and evaluates its suppliers based on various criteria, including quality and safety standards, legal requirements, and good social and environmental practices, such as the prohibition of child/slave labor. Currently, the operations of the company's two large subunits (wheel manufactures and parts) are working closely to unify processes and guidelines in a single network of key suppliers (notably aluminum and steel suppliers), facilitating control over compliance with ESG good practices in (page 42). However, the report did not find any specific programs or activities to developing suppliers in terms of capacity building, environmental sustainability, or related themes.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

SDGs / GRI Standards / ICMM / AIAG / The Aluminum Association (USA) and European Aluminum



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

OHSAS 18001 / ISO 45001 / ISO 14001

**Company Name:****Fras-Le****Country:**

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 307.45 million

Overview:

Founded in 1954, the company is a subsidiary of the Randon conglomerate and works with auto parts the replacement, bringing together a series of subsidiaries and brands that place it as the leading producer of friction materials in Latin America and one of the largest in the world. Fras-Le operates ten industrial units, six distribution centers, four commercial offices, and two technology and development centers spread across Brazil, Argentina, China, United States, India, Uruguay, Colombia, Netherlands, Germany, Chile, and Mexico.

**ENVIRONMENTAL ACTION**

The Environmental Management of Fras-Le follows the guidelines set by the Randon Group, and the EMS is based on the ISO 14001 methodology. The report does not disclose GHG emissions. The company seeks to minimize the impacts caused by energy consumption by investing in renewable sources (electricity and biodiesel) and new technologies, processes, and products capable of increasing efficiency both in operation and in the final product for customers. In addition, its EMS continuously monitors energy consumption indicators, allowing it to assess better and control these expenses. From there, the company was able to cut losses in compressed air, reactive energy, and natural gas (the latter with an online monitoring installation, for example). The replacement of conventional lamps by LED was also a strategy adopted to promote internal awareness campaigns among company employees to avoid waste. According to the report (page 56), these actions increased the energy efficiency by almost 20% in 2020, compared to the previous year.

Forest Project: planting the Future: an awareness project that fosters environmental conservation practices among 40 youngsters and teenagers by implementing a forest garden and composting at the Randon Technological Center (page 84).

**CIRCULAR ECONOMY INITIATIVES**

The company's water management is focused on reducing the consumption of this resource and reusing treated wastewater. In this context, the company invests in monitoring technologies and adopts initiatives to optimize processes and reuse treated effluents for general services, such as restrooms, gardens, cleaning yards, and outside areas. The company has its treatment plant where industrial and sanitary effluents are sent before reusing for internal processes or discharge. According to the report (page 57), this reuse system allowed a 30% reduction in freshwater capture. Fras-Le prioritizes the maximum use of its materials and the recovery

of waste by encouraging recycling and reuse to mitigate the environmental impacts caused by the use of natural resources and the disposal of waste in nature. According to the report (page 58), in 2020, 88% of hazardous and non-hazardous waste was recovered, with 62% recycled and the remaining 26% transferred to other recovery operations (reuse, composting, etc.). In addition, 26% of all the raw materials used by the company were recycled (internal and external to the organization). Composting, which uses organic material to make fertilizer, was created with garden waste and sludge from its treatment plant effluent.



STAKEHOLDER ENGAGEMENT

Regarding work safety and risk management, employees participate in the formulation of the OHS management system's development, planning, implementation, performance evaluation, and improvement actions through inquiries and suggestions. In addition, the interaction is also based on training, safety dialogues, prevention campaigns, and general communications. Fras-Le operates through the Elisabetha Randon Institute, the Randon group organization founded in 2003 to promote social and civic development through education, culture, social assistance, and encouragement to volunteering. To communicate with the beneficiaries of its practices, the institute conducts a broad survey every two years in collaboration with the Union of Neighborhood Associations of Caxias do Sul to ascertain the communities' greatest demands and behaviors. In a few words, the right places to conduct social projects (page 83). There is no mention of traditional or indigenous communities in the report.



SUPPLIER SUPPORT

In general, the relationship with suppliers is guided by the policies of the Randon Group. Before hiring, the company evaluates a number of factors (such as quality and safety aspects of the products and services offered, as well as socio-environmental aspects) to encourage suppliers

to adopt sustainable practices consistent with these guidelines.

After that, suppliers are required to get licenses issued by the state or municipality; beyond that, they effectively control the impacts caused by their activities (waste, noise, use of natural resources, etc.).

Regarding OHS, a system that examines the risks related to the company's health and accidents is checked. Fras-Le maintains a Supplier Portal, which is used for evaluating, contacting, and monitoring its network. Any non-confirmation negotiations, requests, notifications, audits, evaluation questionnaires, and plan management are carried out through this portal, and it also allows suppliers to review their monthly performance indicators (page 65). No sustainability initiatives specifically aimed at supporting suppliers were identified in the report.



HIGHLIGHTS

"Pro-Environment": it is a reverse logistics program in which the company's registered customers in seven Brazilian states can return waste generated by purchased and used products to Fras-Le, which disposed of it in an environmentally responsible manner. In 2020, the company invested approximately US\$ 163k and recovered 861 tons of brake discs. In addition, customers who took part in the action were also given an environmental certification as recognition. This program is an interesting example since it supports sustainable practices throughout the value chain, but it is not intended for suppliers, as usual, but for companies that use Fras-Le products (page 59).



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2021) / SDGs / GRI Standards / IIRC



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 14001 / ISO 9001 / OHSAS 18001



Company Name:

Metalsa

Country:

Mexico

Capital Formation:

Private

Annual Revenue (2020):

USD 2 billion³⁵

Overview:

Metalsa has been in the market for over 60 years. It is the automotive subsidiary of Grupo Proeza and producer of metal structures for light and commercial vehicles, such as chassis and electric components. The company has manufacturing plants, sequencing centers, commercial offices, and technology centers spread across Mexico, United States, Brazil, Argentina, China, India, Japan, and Thailand.

35. Available at Metalsa's 2020 sustainability report, page 3.



ENVIRONMENTAL ACTION

Metalsa's GHG emissions are only disclosed in scopes 1 and 2, and they are calculated in accordance with local regulatory requirements, along with particles the measurement (air pollutants). The company has a global sustainability awareness program that assigns specific projects to each unit. The primary strategies are savings targets, energy efficiency improvements based on technological investments, and renewable sources' matrix diversification in the commitment to reduce emissions. Despite a 2% reduction in carbon emissions compared to 2019, operations were reduced in 2020 during the pandemic, and a production unit was divested (page 58), implying little or no improvement in emissions per production. Additionally, the company runs social projects in Thailand to promote reforestation and environmental awareness.



CIRCULAR ECONOMY INITIATIVES

Aside from the initiatives relating to gas emissions and reduction and energy efficiency, water and waste management are covered by the global sustainability awareness program, which encourages each plant to develop its initiatives. In this regard, there is a goal of zero waste production, with recycling as its main strategy. Besides, 1.3k tons of non-hazardous waste were recycled in 2020, and the total waste production was almost 22% lower than in 2019.

The company wishes to make its use more efficient in water management by using the World Resources Institute (WRI) Aqueduct Tool to identify risks in water stress regions. The company uses indoor and outdoor water treatment plants, treating the remainder of its production under local regulations. In 2020, the company decreased freshwater removal by around 37% of compared to the previous year.



STAKEHOLDER ENGAGEMENT

The company communicates with its employees through various communication channels, such as social media, email, communication, face-to-face meetings, transparency lines, office screens, and Metalsa Listens and Responds websites. This allows the company to seek employee's feedback on the work environment and organizational conditions and resolve grievances. Emails, face-to-face meetings, inspections, site visits, social responsibility training and environmental programs are the most common ways communities are engaged. During the pandemic in Mexico, the company collaborated with organizations to design and build ventilators to alleviate the spread of the virus. It also implemented the project Waze Carpool to reduce CO₂ emissions (although it was suspended due to Covid-19). In Argentina, musical education projects are promoted through youth orchestras, which offer classes and instruments; in Thailand, community development projects include reforestation and environmental awareness programs, food donations, hygiene, and educational materials; and in Brazil, capacity building projects for women, support for orphanages and donations of food and teaching materials stand out (page 32). The report does not mention indigenous communities.



SUPPLIER SUPPORT

Metalsa's suppliers must comply with its sustainability guidelines and good practices, which include human rights and environmental topics (in this sense, organizations are "obliged to support a preventive approach to environmental challenges and encourage the development and diffusion of eco-friendly technologies" (page 34). The company has a system for evaluating suppliers in terms of quality and environmental and social practices, and if failures or opportunities for improvement are identified, these companies are asked to take corrective measures. The company responds to its concerns about suppliers' development and value chain strengthening by updating contracts, increasing local investments,

promoting supplier development programs, and connecting with local companies (despite not mentioning/explaining programs aimed at suppliers in the report). Furthermore, among the Covid-19 content measures provided by the company is the strengthening of communication throughout Metalsa's supply chain to protect suppliers and anticipate future supply concerns.



HIGHLIGHTS

Metalsa has committed to adopting two new sustainable financial instruments in 2021: replacing its committed credit facilities with a Sustainability-Linked Loan (SLL) and refinancing its bond maturing in 2023 from issuing one Sustainability-Linked Bond (SLB) with maturity in 2031. These financial instruments allow the company's loan to be used for purposes other than ESG investments, as long as the borrower commits to achieving sustainability goals and, to the extent the company achieves them, it receives discounts on the loan. In the case of Metalsa, its SLL will be linked to achieve and maintain a silver rating with Ecovadis — a rating platform that assesses Environment, Labor, and Human Rights, ethics, and performance in sustainable procurement. The SLB, on the other hand, will be linked to the company's commitment to reduce its GHG emissions by 20% by 2031 (page 3).



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2021) / SDGs / GRI Standards / AIAG / IATF / WRI



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 14001 / ISO 45001 / EcoVadis Silver Rating (2019)

**Company Name:**

Nemak

Country:

Mexico

Capital Formation:

Private

Annual Revenue (2020):

USD 3.3 billion

Overview:

Nemak, spunoff from the Mexican Alfa group in 2020, provides automotive solutions for the global industry, specializing in developing and manufacturing of aluminum components for powertrain and structural components for electric vehicles. The company has manufacturing units in 15 countries: Mexico, USA, Brazil, Argentina, Austria, Spain, Hungary, Germany, Slovakia, Poland, Czech Republic, Turkey, India, China, and Russia.

**ENVIRONMENTAL ACTION**

The company calculated its GHG emissions based on the GHG Protocol and measured its Corporate Carbon Footprint, including scopes 1, 2, and 3 for the first time in 2020. Nemak's targets are set for 2030, following the SBT methodology and the Paris Agreement, and a climate task team has been formed to implement its roadmap to net-zero emissions.

To reduce its carbon footprint, the company has been looking for renewable sources (for itself and its supply chain) and increasing energy efficiency through investments in technologies and others from industry 4.0. It currently receives solar energy from India and Poland, cogeneration plants in Poland, wind energy from Mexico, and a diversified matrix from Germany, which corresponds to 50% of its electricity (page 23). The company's total investment in 2020 to reduce its emissions was almost USD 4.2 million, 1 million spent on GHG reduction, and 3.1 million spent on significant air pollutants (page 20). In addition, the company invests in new technologies to produce its automotive parts, which helps reduce vehicle fuel consumption, and it has contributed to electric mobility through more energy-efficient batteries and engines development. The report does not mention actions toward biodiversity or reforestation.

**CIRCULAR ECONOMY INITIATIVES**

Regarding the circular economy, recycling is a key practice at the company, which invests in technologies to develop reuse techniques and uses recycled aluminum in 80% of its production (page 15). Besides being light, aluminum is an easily recyclable material, allowing it to be obtained by secondary companies or internal recycling. In addition, bauxite (raw material for aluminum) and sand are also highlighted in the company's recycling efforts. Nemak also engages proactive dialogue with suppliers and customers, encouraging reuse and recycling practices throughout the production chain.

Regarding water management, the company promotes initiatives to save water consumption in its units on a global scale. In this sense, two more wastewater treatment plants were built (currently totaling 23 stations, which treat the total volume of this resource used by the company), increasing water recycling in its internal use and developing new green landscape plans aimed at reducing erosion and increasing the quality of rainwater close to its operating locations. The WRI conducts a water risk assessment using the Aqueduct tool in order to identify the areas of greatest water stress where the company operates and to better monitor the consumption and treatment of the basins in concern (page 26).



STAKEHOLDER ENGAGEMENT

Regarding workers' engagement, the company mentions the union's involvement, the workers' council, the health and safety committee, and a hotline and mailbox serving as the main communication channels (page 27) in matters of OHS. Nematik maintains local communities' social development programs in education, capacity building, training, promoting art and culture, and mental health campaigns. Despite this, no specific feedback strategies for assessing the results of actions or grievance mechanisms/ community demand channels were mentioned. The report does not mention traditional/ indigenous communities.



SUPPLIER SUPPORT

Nematik has a sustainable purchasing policy to establish contracts with vendors based on a series of commitments in regulations and guidelines concerning OHS and sustainability topics, among other issues. Aside from that, the company annually assesses its suppliers to improve its circular economy approach throughout its value chain. In addition to prioritizing local hiring, Nematik held four main support programs in 2020 to help suppliers in achieving better sustainable performances, namely: Supply financing program (which gave

almost USD 300 million to its beneficiaries), Sustainability Roundtable (in which 34 suppliers participated, sharing their best practices from CO₂ measurement), EcoVadis (55 suppliers were evaluated by EcoVadis and received tailor-made recommendations and action plans), and Scope 3 emission measurement (page 31).



HIGHLIGHTS

Nematik is the only company from any country in the automotive sector analyzed to produce its Scope 3 emissions in its assessed report.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2020) / GRI Standards / SDGs / TCFD / SASB / CDP / SBT / FTSE4Good / EPA / GHG Protocol / WRI / DJSI



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 50001 / EcoVadis Bronze Rating (2020)



Company Name:

Suzano

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 5.61 billion

Overview:

Nearly a century old, the company has been one of the largest in the pulp market and the global leader in the paper market, with around 60 brands in the cut size, coated, uncoated, and paperboard segments. The multinational has direct operations in Brazil, Austria, Argentina, Canada, China, the USA, Israel, and Switzerland.



ENVIRONMENTAL ACTION

Suzano has implemented several initiatives related to technological innovation to reduce the use of fossil fuels and increase its energy efficiency, two of which deserve special note. The first is the Thor tool, developed in one of the company's units and later replicated in several others. It uses data science to allocate steam to the turbines and thus increase the power to create energy. The second initiative consists of greater steam production in industrial boilers while using the same amount of fuel consumed, increasing the efficiency of electricity generation (page 61).

Suzano's measures to reduce GHG emissions into the atmosphere are mostly focused on forest protection, as their primary raw material is derived from trees. In addition to the nearly 500 hectares, where the restoration process began in 2020, the company covers a conservation area of 960,000 hectares with fauna and flora monitoring and biodiversity preservation.

The company has a vast digital monitoring system that displays CO₂ variations in real-time, other meteorological data and related measurements (page 58), allowing for highly precise environmental planning management. Suzano has also carried out several projects, such as a partnership with WWF and P&G to restore degraded sites while assisting local farming families, developing pest controls that do not require agrochemicals (page 55), and more efficient reforestation technologies and techniques. The UN recognized the company's environmental restoration model as one of the 15 best in socioeconomic and environmental terms globally, emphasizing Suzano's Rural Land Development Program (page 59).



CIRCULAR ECONOMY INITIATIVES

The company has circular savings goals for waste and water management, expressed through various initiatives. In 2020, the company spent US\$ 7,23 million to build two new waste treatment and composting stations and ran projects in two Brazilian states to treat waste and correct soil acidity (page 61). In its analysis and product development, the company employs tools such as Cycle Analysis to invest in alternatives with less

waste and biodegradation (page 48), supplying the market with alternative products to plastic and other petroleum derivatives, such as in Bluecup Bio® and Loop® packaging production lines (page 19). By 2020, such actions allowed the company to make 40% progress toward reducing industrial waste by 2030. Concerning water, the company invests in different projects to reduce the water consumption in its industrial units, and it has 40 critical basins mapped under monitoring remotely (page 55).

The Mucuri Springs Project encourages farming families in the Mucuri River area to take more conscious action, improving the region's water and ecological security (page 60).



STAKEHOLDER ENGAGEMENT

Acting to alleviate the impacts of the crisis caused by the covid-19, Suzano invested in measures to raise awareness and donate materials. In Bahia, the company had dialogues with the state government, helping to define the purchase of 159 respirators, one million masks, and other hygienic materials for hospitals in the area. Its social plans (notably education, training, and environmental awareness) aimed at communities promoted by Suzano are defined regularly according to the dialogue with local populations, isolated neighbors, and with the region's traditional/indigenous communities, which also benefited from cultural and socioeconomic social projects. Suzano maintains a dialogue with these communities and the local government, which mediated the demarcation of land in 2007 after a well-publicized conflict over indigenous lands that overlapped with the company's operations in the area.



SUPPLIER SUPPORT

Suzano also transferred approximately US\$ 2,71 million to 700 SMEs identified as large dependents on the company's purchases as a way of helping them to cross the crisis, besides the initiative to Covid-19 health and safety training with its suppliers. Suzano has also structured a comprehensive Consultancy Plan for companies that generate more than half of their revenue from Suzano. This plan identifies

bottlenecks and possibilities for sustainable these suppliers' growth. In 2020, the company launched a Suppliers Portal with guidelines and other information to comply with Suzano's social and environmental regulations.

Finally, the Responsible Supplier Management Program was launched in the same year to implement stricter rules for the admission of new suppliers according to social and environmental sustainability criteria.



HIGHLIGHTS

Suzano launched, in 2020, its Sustainability-Linked Bond issue in the capital market, linking the use of this financial tool to the fulfillment of its goal of reducing its GHG emissions by 15% by 2030. Thus, the amount raised has been used in its sustainable economic growth strategy. The company also signed a US\$1.570 billion Sustainability Linked-Loan (SLL) export prepayment contract, associated with a reduction in GHG emissions and industrial water uptake of 9.7% and 2.1%, respectively, by 2025, in line with its long-term strategic plan and deadline of 2030 (page 69).



CHALLENGES

Suzano faced a significant challenge in 2020 due to forest fires that occurred on its land in Mato Grosso do Sul, associated with severe droughts in the region. The company acted to remedy the situation, but the damage was minimized while the site was still at risk of burning, which is why the company continues to study ways to avoid it (page 56).



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2003) / SDGs / GRI Standards / IIRC / TCFD / SASB / DJSI / CDP / WEF / GHG Protocol / IUCN / Climate Action 100+ / Brazil GHG Protocol Program (Published inventories: 2013, 2017, 2018 and 2019)



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 14001 / ISO 45001 / OHSAS 18001 / ISO 9001 / FSC (Forest Stewardship Council / ISEGA



Company Name:

Klabin

Country:

Brazil

Capital Formation:

Private

Annual Revenue (2020):

USD 2.20 billion

Overview:

Klabin is active in the forestry, cellulose, paper, and packaging market, playing a world-leading role in some products. The company has 23 factories in Brazil and one in Argentina and exports to over 80 countries.



ENVIRONMENTAL ACTION

Klabin, a participant in the GHG Protocol, has been recording its emissions since 1993, which are available for public consultation in scopes 1 and 2, and discloses its results in line with international recommendations, notably the TCFD and the SBTi. Aiming to reach its 25% reduction target by 2025 (with 2019 as a reference), the company intends to increase energy efficiency and use renewable sources, such as biomass and black liquor. Currently, renewable sources account for 90% of the total energy consumption, 32% biomass, and 57% black liquor (page 82). The company invests in its R&D to increase its forest productivity by cloning and genetic improvement of trees, increasing wood density and resistance to the effects of climate change. The company also installed 32 new climate monitoring and weather forecasting units in 2020. Through the Apiculture and Meliponiculture program, the company ceded its forests to create bees by small producers, favoring biodiversity and ecosystem balance. The company's core projects are environmental awareness, planning actions for rural properties (which promote conservation, environmental education, and forestry promotion among small and medium producers), and environmental protection training programs for young people. All forestry units are audited annually and certified by the FSC and are monitored by third-party companies, which implement rules and procedures to minimize risks caused to the preservation of biodiversity in the places where the company operates. Klabin maintains two private natural heritage reserves (dedicated exclusively to scientific studies) and an ecological park of almost 10k hectares (focused on research and environmental education actions).



CIRCULAR ECONOMY INITIATIVES

Klabin invests in R&D to improve the composition of its products and increase their useful life and strength, especially packaging, so that their disposal has a less environmental impact (as recyclable and biodegradable products), while efficient in blocking water, vapor, fat, and oxygen. Since 2012, the Solid Waste Program

has sponsored initiatives in several places for selective collection and recycling of materials. The initiative works on three fronts: uniting waste pickers with the government, cooperatives and associations, and the community, formalizing and supporting recycling activities. In terms of water management, the company participates in river basin committees and uses the WRI Arquedute tool to measure and monitor water consumption and reuse to optimize and reduce the removal of blue water from nature. There are also specific initiatives such as Hydrosolidarity management, which aims to identify best practices for minimizing environmental impacts on micro-watersheds through interaction with local communities. 100% of wastewater is treated internally by treatment plants and monitored by external validations as a possibility of reuse and disposal of effluents.



STAKEHOLDER ENGAGEMENT

Klabin maintains an open innovation strategy, in which startups, universities, customers, and suppliers can participate through the application of ideas that can foster the improvement of the company's internal processes and eco-friendly solutions, in addition to supporting communities during the coronavirus crisis with awareness campaigns, donating medical equipment and hygiene materials, and promoting socioeconomic activities.

Klabin also supports regional development programs in education, building capacitation, family farming, solid waste, and support for participatory public management. All these programs are handled by the Social Responsibility and Community Relations unit, which maintains direct dialogue channels with communities to manage the projects with the greatest possible engagement.

The company started to use the Social Progress Index tool in January 2021, which measures the impact of sustainable actions on the lives of

local populations is available on the internet for everyone to interact with, enabling active participation in these assessments. In addition, Klabin also maps the traditional/indigenous communities that live in the company's area

of influence with whom it maintains dialogue relationships and some social actions, such as the distribution of Covid-19 testing and hygiene supplies during the pandemic.



SUPPLIER SUPPORT

Since 2019, the company has adopted the EcoVadis methodology to examine the socio-environmental performance of its suppliers (who participate voluntarily) to identify problems and draw up action plans to help improve its operations. During the pandemic, Klabin provided credit support to suppliers, both in advance and guaranteeing payment for the provision of contracted services, regardless of their completion. The suppliers of the Puma II project, in particular, also benefited from the necessary measures to guarantee social distance and Covid-19 tests. The total package of this financial support in its value chain cost the company around US\$ 18 million.



HIGHLIGHTS

The company announced the issuance of Sustainability-linked bonds in 2021 in the amount of US\$ 99.39 million, valid for ten years and tied to achieving three goals by 2025: reducing water consumption (approximately 17% compared to 2018), achieving a minimum of 97.5% in solid waste recycling and reintroducing at least two endangered species into the ecosystem.



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2003) / SDGs / GRI Standards / DJSI / TCFD / CDP / SBT / IUCN / Brazil GHG Protocol Program (Published inventories: 2010) / WRI



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 50001 / ISO 14001 / ISO 9001 / ISO 45001 / OHSAS 18001 / WWF / EcoVadis / SPOTT / FSC (FSC-C022516) / COP26 / S&P Global



Company Name:

Bio Pappel

Country:

Mexico

Capital Formation:

Private

Annual Revenue (2020):

USD 1.26 billion³⁶

Overview:

Bio Pappel is a paper and paper by-products company with three brands, 36 industrial plants, and 14 collection centers spread across mainly Mexico and the United States, and with one plant in Colombia.



ENVIRONMENTAL ACTION

The company's emission calculations are based on national metrics, and it discloses only scope 1 and 2 emissions using US EPA A-P42 factors to disclose. In line with SDGs 7, 9, 12, and 13 and the Mexican Energy Transition Law (derived from the Paris Agreement), the company developed the Bio-ENERGY system, which uses the steam generated during production to produce clean energy. Besides, the company uses solar, wind, biomass, and biogas energy. Furthermore, the company has invested in trucks with the EURO V technology, which emits fewer pollutants into the atmosphere and is gradually migrating to the rail transportation system (page 40).

In addition to the reforestation campaigns and several community educational projects in the area promoted by the company to preserve the ecosystem and biodiversity, Bio Pappel has also transformed a part of its land into a forest reserve, covering an area greater than 4k hectares (page 41). Some examples of these projects are Green Schools, Embrace a Tree, and Reforestation: our best role (pages 54–56).



CIRCULAR ECONOMY INITIATIVES

Bio Pappel expanded its portfolio under its *Bosque Urbano* sustainability model, producing paper materials 100% from recycled material, with 91% producing packaging and 9% writing/printing paper. As a result, the company's circular economy scheme can extend the life of the paper as much as possible, which can be converted and reused several times. In addition, the company works with municipal and state governments to carry out optimized management of urban solid waste: the company's actions had a considerable impact on the increase in paper collection in Mexico (from 40% to 56.6%) (page 30).

In line with SDG 6, Bio Pappel manages water through its internal treatment plant, allowing it to recycle most of the water used in its operations

36. Available at Bio Pappel's 2020 sustainability report, page 18.

through closed-loop systems and technological tools, with a small segment recycled by third-party agents reused in their operations. The non-recycled water is likewise treated in the same system before being discarded. It is worth noting that Bio Pappel's water management, which recycled almost 70% of the total used in its activities in 2020, received the Water Efficiency Award by PPI (page 38).



STAKEHOLDER ENGAGEMENT

Regarding communication with employees, Bio Pappel maintains channels for the information and follow-up of different committees to raise concerns and suggestions, as well as to implement new projects or initiatives, besides the Labor Climate Surveys, the Bio Pappel Ethics Line, the Bio-Information Bulletin, and volunteer Programs; Bio Pappel claims to establish dialogues "with the main actors in the region" (page 52), usually translated into educational institutions, civil society organizations, and community leaders, and local authorities to promote social projects in the local communities, where the company operates. Thus, social actions are promoted mainly in environmental education, education/capacity building, and community development in general. During the pandemic, the company developed several actions to raise phytosanitary awareness, preventive measures, hygienic materials, and materials donations for groups at risk in the communities (pages 52–66). The report does not mention traditional/indigenous communities.



SUPPLIER SUPPORT

Bio Pappel promotes the "Supplier Certification" program, which consists of a general certification (covering the environmental, human resources, fiscal, legal areas, etc.) of the supplier companies in all the company's operations every three years to establish relationships with suppliers that share its values of sustainable vision. In addition, the company's Suppliers Portal helps the organization strengthen its long-term commitments through documentation of its

purchases and services (page 15). Although the report does not mention specific financial support or development/training programs, it maintains contact with its key suppliers to identify "areas of opportunity and best practices" (page 67).



NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

UNGC (Since 2006) / SDGs / GRI Standards / WWF / GEMI / CDP / US EPA A-P42 / Mexico GHG Protocol Program



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 9001 / ISO 14001 / ISO 45001 / OHSAS 18001 / FSC (Raw material for paper production 100% recycled) / PEFC / SFI / PPI Awards (Water efficiency Award; Environmental Leadership Award)



VEGETABLES,
CELLULOSE, AND PAPER

Company Name:

Becle

Country:

Mexico

Capital Formation:

Private

Annual Revenue (2020):

USD 1.62 billion³⁷

Overview:

Becle, the largest tequila producer worldwide, is a spirits producer company that distributes its products for over 85 countries. Its operations are vertically integrated, giving the company control over nearly all its product's value chain.



ENVIRONMENTAL ACTION

The bedrock of the environmental protection policies from Becle derives from its Comprehensive Environmental Plan. The plan works under three principles to reduce the operations footprint: reduce, reuse, recycle, and recover. Some of the major programs are oriented to the reforestation of the Tequila Municipality. They seem to be under the aegis of the Reforestation Agreement with the CONAFOR Agricultural Unit in 2005.

The company also operates under a Voluntary Environmental Compliance issued by the Ministry of the Environment and Territorial Development of Jalisco State.

The report does not disclose GHG emissions.



CIRCULAR ECONOMY INITIATIVES

The key element of the company's circular economy initiatives is under the water management and compost programs. The company has two composting centers and a Recollection of the Agrochemical Containers' Program. Agrochemical containers are also available in a collection center in Tequila Municipality.

The company also states that its operations follow several national and local regulations regarding health, managing, and quality, namely: (1) General law on ecological balance and environmental protection; (2) General law on prevention and comprehensive management of waste; (3) Regulation of the general law on prevention and comprehensive management of waste; (4) State law on ecological balance and environmental protection; (5) and State law on comprehensive waste management.

³⁷. Available at Becle's 2020 Annual Report, page 18 (on <https://www.cuervo.com.mx/ir/reporting-center/>).



STAKEHOLDER ENGAGEMENT

The company community engagement is operated through the Beckmann and Becle Foundation, and it is more reactive to events. In the last report, the company supported local communities in Mexico that were affected by the 2017 earthquakes. The foundation established a fund to build houses for the communities affected.

Other community engagement programs, such as Vulnerable and Poverty Diagnosis of Rural Communities and Education Quality Assessment, are primarily runs by the Jose Cuervo Foundation and focus on the social development of local communities in the Tequila Municipality.



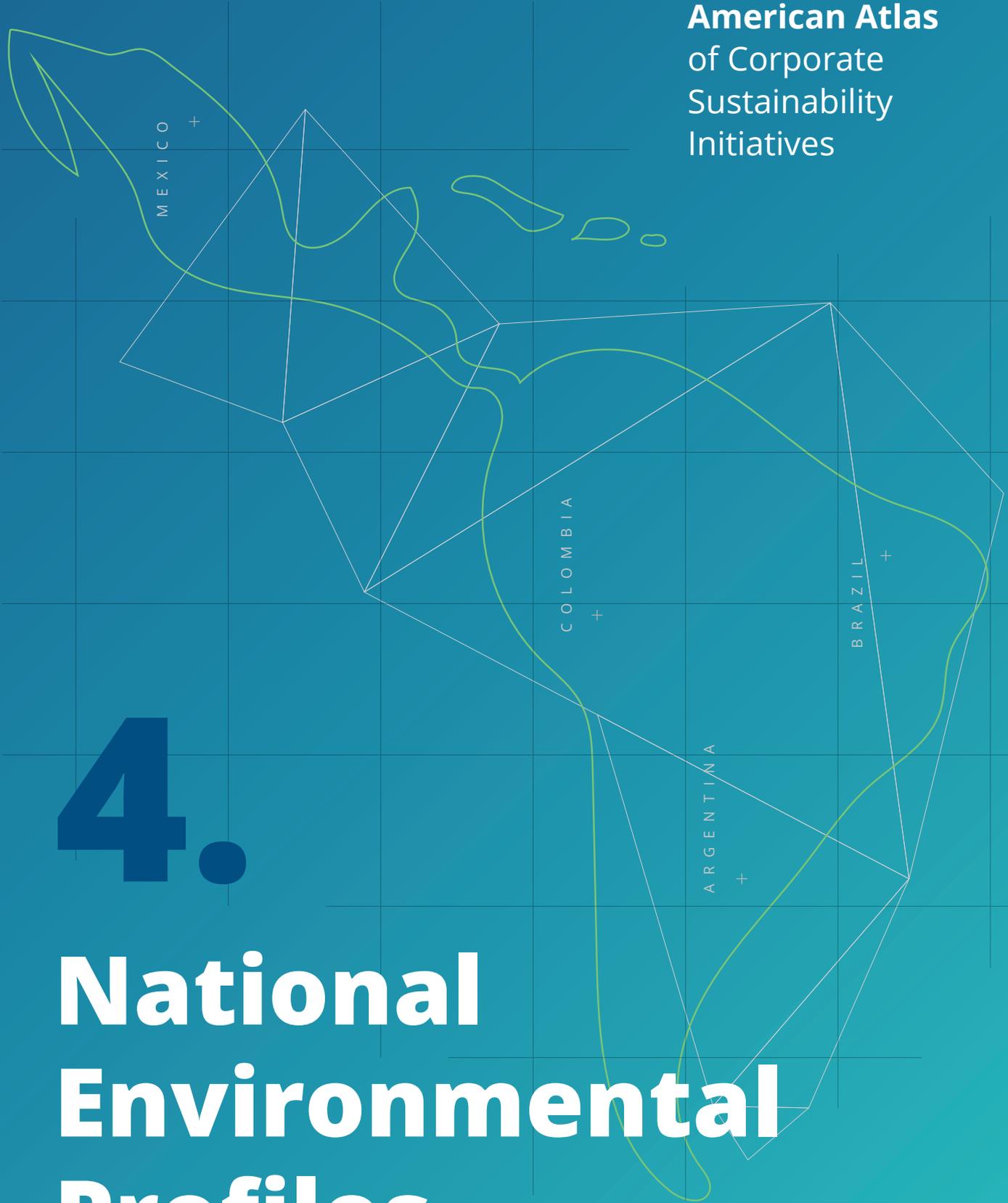
NOTABLE COMMITMENTS, STANDARDS AND ASSOCIATIONS PARTICIPATION

GMP / IFRS



AWARDS / ACKNOWLEDGEMENTS / CERTIFICATIONS / ACCREDITATIONS

ISO 9001 / ISO 14001



4.

National Environmental Profiles



Buenos Aires, Argentina

IMAGE: Nestor Barbitta on Unsplash

4.1

Argentina



Emission:

3656 MtCO₂e (2018)

Per Capita Emission:

3.987 tCO₂e (2018)

Original Goal:

Unconditional: 483 MtCO₂e by 2030—32% above 2010 levels by 2030. Conditional: 359 MtCO₂e by 2030 — equivalent to a total reduction in emissions of 19% by 2030, referencing the historical peak in 2007.

Updated Goal:

Unconditional: 359 MtCO₂e by 2030. It is a 25,7% decrease in GHG emissions compared to the first unconditional goal submitted in 2016.

CAT Score:

Critically Insufficient + increased ambition in the 2020 NDC revision, which might move the country to an insufficient level.

Carbon Neutrality Target:

2050 (Submission to the UNFCCC)

ENERGY TRANSITION

It focuses on an energy transition towards clean energy, in which its central elements are energy efficiency and distributed generation of renewable energy. Despite the objective to foster energy sources such as wind and solar power, bioenergy, hydro and nuclear, the transition towards this goal will rely on natural gas to rapidly reduce the country's emissions. It is also expected to develop hydrogen production chains, nuclear power, and hydroelectric plants.

TRANSPORTATION

It strives to foster an intermodal perspective to optimize and increase the country's transportation system's flexibility. It will also promote vehicles powered by natural gas, hydrogen, electricity, and biofuel. New policies will derive from the Avoid-Shift-Improve approach³⁸.

ENVIRONMENT AND AGRICULTURE

The plan focuses on technologies to boost agriculture and livestock yields rather than area expansion to maintain its increasing production levels. As a result, the country intends to foster investment in innovation and new technologies.

It seeks to enact new policies to curb deforestation, mainly through new monitoring mechanisms, and foster cultivated forests with a social inclusion perspective. It also aims to promote the sustainable forest use, especially by adding value to the production chain.

The plan aims to strengthen its risk management mechanisms to cope with extreme weather events, such as forest fires and floods.

A particular focus will be given to its maritime territory. The plan explicitly intends to support scientific research to provide inputs into future maritime management, protection, and sustainable economic development policies.

38. Deutsche Gesellschaft für Internationale Zusammenarbeit. "Sustainable Urban Transport: Avoid-Shift-Improve (A-S-I)". Available at: https://www.transformative-mobility.org/assets/publications/ASI_TUMI_SUTP_iNUA_No-9_April-2019.pdf.

PRODUCTION AND INFRASTRUCTURE

The plan expects to promote a sweeping change in the national economy toward adopt sustainable production principles. This conversion seeks to help the country's economic recovery and reposition in the global markets. New development policies shall be guided by new production standards, implemented in coordination with the private sector, and oriented to sustainable management, especially in extractive industries.

Future infrastructure shall adhere to these same precepts by becoming sustainable and resilient. The critical element is the consolidation of an integrated approach, in which infrastructure will consider elements such as integral waste management within a framework of innovative practices and aligned with circular economy practices.

CIRCULAR ECONOMY

According to the NDC, a circular, social, and popular economy will be the key axes that will guide the country's economic and social transition. Those axes will provide tools to foster sustainable development that comprehends vulnerable groups and territories. The circular economy concept is also mentioned as the underlying logic for its waste policy to provide more efficient and sustainable management.

CARBON MARKET

The country does not mention Carbon Market initiatives in its NDC. In 2018 Argentina implemented a Carbon Tax covering several sectors, such as solid and liquid fuel, oil, mineral coal, and petroleum coke — natural gas is exempted from the tax.

MAJOR ENVIRONMENTAL REGULATIONS

■ National Law on Adaptation and Mitigation on Climate Change (2019)

Created to comply with the country's commitments to the Paris Agreement, it establishes several plans of action in sensitive sectors such as energy, transportation, industry, health, agro, infrastructure, and forests.

■ Environmental General Law (2002)

It decides the minimum standards for environmentally sustainable management, protection, and preservation. It also establishes principles for information and participation on environmental affairs and accountability for environmental damage and education.

■ Minimum Standards Law for Adaptation and Mitigation to Global Climate Change (Climate Change Law) (2019)

It determines the minimum environmental protection standards to ensure action, instruments, and strategies regarding adaptation and mitigation. It also created the National Climate Change Information System to disseminate its data for the appropriate actors in the process.

■ "Yolanda Law" (2020)

It ensures mandatory training for public servants on themes related to environmental issues, focusing on sustainable development and climate change.

■ Carbon Tax (2018)

It is applicable for most liquid fuels (e.g., fuel oil, mineral coal, and petroleum coke), replacing previous fuel taxes. Its revenue is designated to multiple beneficiaries, including the Federal Revenue Distribution System, the National Housing Fund, the Transport Infrastructure Trust, and the social security system³⁹.

■ National Circular Economy Strategy (2019)

It preserves and improves natural resources, optimize their performance by circulating products, components, and materials with the maximum utility, regenerating, sharing, optimizing, and promoting the system's efficiency by identifying negative externalities⁴⁰.

39. https://carbonpricingdashboard.worldbank.org/map_data.

40. <http://ars.org.ar/destacados/estrategia-ancional-de-economia-circular/>.

MAJOR DOMESTIC ACTORS

- **Federal Council of the Environment**
(Consejo Federal de Medio Ambiente)
- **National Climate Change Cabinet**
(Gabinete Nacional de Cambio Climatico)
- **Argentine Office of the Clean Development Mechanism**
(Oficina Argentina del Mecanismo para un Desarrollo Limpio)
- **Ministry of Environment and Sustainable Development**
(Ministerio de Ambiente y Desarrollo Sostenible)



Rio de Janeiro, Brazil

IMAGE: Glauber Sampaio on Unsplash

4.2

Brazil



Emission:

1.032 MtCO₂e (2018)

Per Capita Emission:

2.042 tCO₂e (2018)

Original Goal:

Unconditional: Reduce GHG emissions by 37% by 2025 and 43% by 2030, taking 2005 as a reference — targeting 1.3 GtCO₂e by 2025 and 1.2 GtCO₂e by 2030.

Updated Goal:

Original percentage goal was maintained, plus an indicative long-term objective of reaching climate neutrality in 2060 (depending on the proper functioning of the market mechanisms provided for in the Paris Agreement).

CAT Score:

Insufficient + did not increase ambition in the 2020 NDC revision⁴¹. The Climate Observatory criticized the new Brazilian version, denouncing a methodological accounting maneuver (*"pedalada de carbono"*): Brazilian emissions reduction target does not change the percentage committed, but the baseline has changed a lot⁴². The network of 56 civil society organizations made their own proposal for what should have been the update of the NDC: Brazil should commit to an 81% reduction in net emissions by 2030 compared to 2005 levels, i.e., by the end of the decade emitting at most 400 million tons of GHG, measured in carbon dioxide equivalent (CO₂e)⁴³.

Carbon Neutrality Target:

2060 (Submission to the UNFCCC)
2050 (Pledge at 2021 Earth Day)

ENERGY TRANSITION

The country indicates that it will expand its renewable energy sources, aiming to achieve a 45% share of the Brazilian Energy Mix. This would imply increasing renewables' proportion of the Brazilian Energy Mix by 18% the share for biofuels, 33% for hydropower, and 23% for other renewables (Solar, Biomass, Wind, etc.) in by 2030. Additionally, it aims to increase energy efficiency in the electricity sector by 10% by 2030.

TRANSPORTATION

To foster efficiency measures to improve transport and public transportation, especially in urban areas. A key policy to achieve its goal is the *RenovaBio*, which aims to foster the use of biofuels in vehicles and reduce the share of transports in the country GHG emissions.

41. Given to the lack of information presented in both NDCs, some information regarding the country sectoral policies were collected in the country profile from the Climate Action Tracker (CAT).

42. This is because its Annex mention that "[f]or reference purposes, the level of emissions of greenhouse gases for the base year is registered in the current inventory as per the Third National Communication from Brazil to the United Nations Framework Convention on Climate Change, submitted on 20 April 2016." This third national communication, however, by improving the methodology for estimating land use emissions in the country, ended up significantly raising net emissions in the base year 2005: from 2.1 billion tons of carbon dioxide equivalent (GtCO₂e) to 2.8 GtCO₂e, measured in global warming (GWP) and according to the emission factors the Fifth Assessment Report (AR5) of the IPCC. See <https://www.oc.eco.br/wp-content/uploads/2020/12/ANA%CC%81LISE-NDC-1012FINAL.pdf>.

43. <https://www.climaesociedade.org/post/proposta-ndc-oc>.

ENVIRONMENT AND AGRICULTURE

It aims to achieve zero illegal deforestation in Amazonia and restore 12 million hectares of forests by 2030 to strengthen the current Forest Code, especially by focusing on its enforcement and implementation at all government levels. It also seeks to enhance sustainable native forest management systems through modern monitoring mechanisms.

Reinforce the Low-Carbon Emission Agriculture Program (ABC), which includes restoring 15 million hectares of degraded pasturelands and enhancing 5 million hectares for multi-purpose activities by 2030.

PRODUCTION AND INFRASTRUCTURE

The government promotes new clean technology standards and energy efficiency in production and fosters low carbon infrastructure development. Although not part of a comprehensive or coordinated national development plan, the country has been issuing sectoral plans that include environmental elements, such as Mitigation and Adaptation to Climate Change for a Low-Carbon Emission Agriculture (ABC Plan), the Steel Industry Plan, the Low Carbon Emission Economy in the Manufacturing Industry Plan, The Sectoral Transport and Urban Mobility Plan and the Low-Carbon Emission Mining Plan.

CIRCULAR ECONOMY

The country does not mention the circular economy concept in its NDC.

CARBON MARKET

A voluntary carbon market project focused on investments in forest conservation is operated through the Floresta+ (Floresta+) Program, which enables a policy for environmental services payments.

MAJOR ENVIRONMENTAL REGULATIONS

■ National Water Security Plan (1997)

It seeks to change the ancillary water character to other activities, giving it centrality. The Plan's objectives are to determine the water principles in society and regulate the use and management of water to guarantee its own sustainability and assure a balanced environment.

■ Law on the National System of Conservation Units (2000)

It defines conservation units as territorial spaces and environmental resources and determines their conservation objectives and a special administration for their protection. It establishes two conservation units: Integral Protection Units and Sustainable Use Units.

■ National Policy on Climate Change (2009)

It ratified the country commitments under the Paris Agreement; its legislation determines several sectoral plans of mitigation and adaptation at all government levels and a plan to consolidate a low carbon economy in various sectors.

■ National Adaptation Plan (2016)

It guides national initiatives that focus on the management and reduction of long-term climate risk. It designs eleven adaptation strategies for sectors especially vulnerable to climate change.

■ Forest Code (2012)

It determines norms for protecting native vegetation in different areas and properties, regulating the limits of the land and vegetation use and exploration.

■ Floresta+ Program (2020)

It creates and promote an environmental services market to foster the viability (both monetary and non-monetary) in all areas and properties with native vegetation. Through this program, services that contain preservation initiatives would be rewarded.

■ **RenovaBio (2016)**

It recognizes the strategic role of all biofuels (ethanol, biodiesel, biomethane, biokerosene, second generation, among others) in the Brazilian energy matrix regarding their contribution to energy security, market predictability, and the mitigation of GHG emissions in the fuel sector. Three strategic axes (1) decarbonization targets; (2) certification of biofuel production; and (3) decarbonization credit (CBIO)⁴⁴.

MAJOR DOMESTIC ACTORS

- **Interministerial Commission on Global Climate Change**
(Comissão Interministerial para Mudança Climática)
- **Ministry of Environment**
(Ministério do Meio Ambiente)
- **National Environment Fund**
(Fundo Ambiental)
- **Chico Mendes Institute for Biodiversity Conservation**
(Instituto Chico Mendes de Conservação e Biodiversidade)

44. <http://antigo.mme.gov.br/web/guest/secretarias/petroleo-gas-natural-e-biocombustiveis/acoes-e-programas/programas/renovabio>.



Bogotá, Colombia

IMAGE: Random Institute on Unsplash

4.3

Colombia



Emission:

184 MtCO₂e (2018)

Per Capita Emission:

1.601 tCO₂e (2018)

Original Goal:

Reducing emissions by 30% from projected to 2030, using a 'business as usual' scenario.

Updated Goal:

Unconditional: 156–188 MtCO₂e by 2030, 6 to 22% lower than 2018 NDC. Reduce its GHG emissions by 20% using a reference to 2015 levels (250 MtCO₂e) by 2030. Conditional: Not Stated.

CAT Score:

Not rated + did increase ambition in the 2020 NDC revision.

Carbon Neutrality Target:

2050 (Submission to the UNFCCC)

ENERGY TRANSITION

It contributes to the country's energy transformation in such a way as to guarantee the competitiveness of the energy mining industries in the face of changing climate scenarios.

By 2025, it aims to have an ecosystem-based adaptation project for the electricity sector that helps companies to ensure compliance with their strategic objectives.

TRANSPORTATION

It focuses on strengthening governance (effectiveness, quality, good guidance in sector interventions) of disaster risk management and climate change adaptation in transportation sector institutions at the central and territorial level according to their competencies, including improving systems of geographic information of the transport infrastructure.

It also includes disaster risk management and climate change adaptation in transportation sector planning and development instruments.

ENVIRONMENT AND AGRICULTURE

It includes climate change considerations in planning instruments for the agricultural sector and implementing innovative adaptation actions; it also aims to:

(1) develop an Integrative Information System on Vulnerability, Risk and Adaptation to Climate Change, articulated to the Information System on Climate Change, which allows to analyze vulnerability and risk due to climate change and monitoring and evaluating adaptation in the country;

(2) include instruments for the ordination and management of hydrographic basins that contribute to reducing the risk and the socioeconomic and ecosystem impacts associated with climate variability and change;

(3) increase the ecosystem representation in the National System of Protected Areas to adapt the territories to climate change. Implement restoration, rehabilitation, and recovery actions that improve protected areas' integrity and their

areas of influence to improve their capacity to adapt to climate change; and

(4) develop strategies and actions allow the improvement of the country's capacity in terms of knowledge of risk, risk reduction, the management of disasters related to forest fires, and their articulation with the management of climate change.

PRODUCTION AND INFRASTRUCTURE

Increase the participation of companies in prioritized sectors that implement strategies, actions, or projects to adapt to climate change.

At least 10% of small, medium, and large companies in the prioritized sectors (Energy, Transportation, Agriculture, Housing, Health, Commerce, Tourism, and Industry) have implemented strategies, actions, or projects to adapt to climate change.

Identification, structuring, and implementing projects on good operation practices and improvements in energy use with a lower emission factor with an impact of up to 15% reducing energy and/or emissions.

Promotion of thermal districts⁴⁵ for the replacement of cooling systems in cities; the districts are urban infrastructures generating and supplying thermal energy to different buildings or end-users in air conditioning systems.

CIRCULAR ECONOMY

As a key component of the Colombian NDC, the circular economy is presented through its Circular Economy National Strategy. It establishes lines of action, indicators, and targets for implementing the circular economy in the country, recognizing the negative impact on health and ecosystems caused by linear resource management of extraction, transformation, consumption, and disposal, and its contribution to climate change.

45. Thermal districts are an innovative model of urban infrastructure designed sustainably and efficiently. The core piece of the model is to centralize the energy services, especially oriented to climatization purposes, through hot and cold water and steam.

CARBON MARKET

The country does not mention Carbon Market initiatives in its NDC. In 2016, Colombian tax reform introduced a carbon tax on petroleum products, natural gas, mineral coal, etc. The carbon tax has a credit system that enables those who engage in initiatives that reduce/remove emissions would be exempted from the tax.

MAJOR ENVIRONMENTAL REGULATIONS

■ National Adaptation Plan to Climate Change (2012)

It guides management and organizes national planning processes in the matter of adaptation and articulates the implementation of policies, plans, actions, and projects to reduce vulnerability and increase adaptive capacity in the face of the potential impacts of climatic phenomena in the country. Green Growth is a strategy included in the National Development Plan (NDP) 2014–2018.

■ Colombian Low-Carbon Development Strategy (2012)

It aims to detach the country's economic growth from GHG-increasing emissions by maximizing carbon efficiency across the economic sectors. Amidst its key priorities, it identifies and recognizes best practices, develops plans of action focusing on mitigation, determines GHG emissions reduction targets, and generates monitoring and verification mechanisms.

■ National Climate Change Policy (2015)

It incorporates climate change management into public and private decisions to advance a development path that is climate-resilient and low carbon to reduce risks and benefit from opportunities.

■ National System of Climate Change (2016)

It enables decision-making between public and private actors at all government levels. It also promotes the design and implementation of policies, plans, programs, etc., as well as fosters the inclusion of climatic variables to design and plan development projects.

■ **Integrated Strategy to Control Deforestation and Manage Forests Colombia (2017)**

It aims to reduce forest deforestation and degradation focused on sustainable rural initiatives and local communities' development to increase ecosystem resiliency.

■ **Climate Change Law (2018)**

It institutes guidelines for climate change management actions for public and private actors, within all government levels, regarding both adaptation and mitigation policies. It entails self-management, coordination, co-responsibility, cost-benefit, cost-effective, gradualism, integration, responsibility, and subsidiarity.

■ **Circular Economy National Strategy (2018)**

- It aims to develop long-term lines of action to promote efficiency in water use, energy, materials, and handling waste. While doing so, it considers the resilience of the ecosystems. The key objective is to adapt the country's productive systems from linear logic to circular one.

■ **National Strategy for Reducing Emissions from Deforestation and Forest Degradation (2012)**

It aims to determine the country's actions to curb deforestation and expand its forestry resources management. It seeks not only to enhance its monitoring mechanisms but also to improve the sustainable use of ecological resources and their conservation.

■ **Carbon Tax (2017)**

- It was adopted as part of structural tax reform, applies to GHG emissions from almost all sectors, covering all liquid and gaseous fossil fuels used for combustion⁴⁶.

MAJOR DOMESTIC ACTORS

- **Ministry of Environment and Sustainable Development**
(Ministerio de Ambiente y Desarrollo Sostenible)
- **National Planning Department**
(Departamento Nacional de Planeación)
- **Intersectoral Climate Change Commission**
(Comisión Intersectoral de Cambio Climático)
- **Institute of Hydrology, Meteorology and Environmental Studies**
(Instituto de Hidrología, Meteorología y Estudios Ambientales)

46. https://carbonpricingdashboard.worldbank.org/map_data.



Mexico City, Mexico

IMAGE: Bhargava Marripati on Pexels

4.4

Mexico



Emission:

679 MtCO₂e (2018)

Per Capita Emission:

3.741 tCO₂e (2018)

Original Goal:

Unconditional: it reduces 25% of its GHG and short-lived climate pollutants emissions by 2030, which implies a reduction of 51% of Black Carbon. Conditional: it increases the unconditional target 25% to 40% and from 51% to 70% regarding Black Carbon.

Updated Goal:

Unconditional: Reduction of 22% of GHG emissions and 51% of black carbon emissions by 2030 using as reference business-as-usual scenario (BAU) scenario. Conditional contributions: A decrease of up to 36% of GHG emissions and 70% of black carbon emissions by 2030 using as reference the BAU scenario. Conditional: reductions of 36% GHG, 70% black carbon, total 40% below baselines provided in NDC by 2030.

CAT Score:

Insufficient + did not increase ambition in the 2020 NDC revision.

Carbon Neutrality Target:

N/A

ENERGY TRANSITION

It seeks to increase the share of clean energy in the national electric network, optimize the current infrastructure, and foster innovative technologies in the sectors of storage and smart grids.

Regarding Oil and Gas, the country seeks to optimize its chain production processes, from exploring to refining and processing.

TRANSPORTATION

It reinforces norms applicable to motor vehicles, promotes alternative transportation systems, fosters clean transportation programs, develops a National Electric Mobility Strategy, and designs urban planning programs oriented towards efficient public transportation systems.

ENVIRONMENT AND AGRICULTURE

It intends to reach a zero-net deforestation rate by 2030 through reinforcing environmental policy instruments and implement actions to protect and restore continental ecosystems, thereby strengthening their ecological connectivity and foster their resilience.

Also, it supports instruments and implement actions for the conservation of biodiversity and the repair of marine, freshwater, and coastal ecosystems as well as insular systems, which increment the permanence of carbon reservoirs and the overall system resilience.

Strengthening environmental policy instruments and implement actions to safeguard the protection of native crops pertinent to agriculture and food security from the impacts of climate change.

Developing and adopting best practices in agricultural and conservation areas, mainly promoting agroforestry and agroecological systems and tackling agricultural fires.

PRODUCTION AND INFRASTRUCTURE

Its production and infrastructure include:

(1) supporting sustainable production and consumption practices, conservation of genetic resources, and the recovery of bio-cultural landscapes;

(2) tackling vulnerabilities by inserting climate change risks in investment projects from the productive sectors and value chains;

(3) stimulating financial supporting mechanisms that tackle the negative impacts of climate change, focusing primarily on the primary production sector;

(4) integrating climate change adaptation mechanisms and disaster and risk management principles in critical infrastructure investment plans. Develop public financing mechanisms, and stimulate private investment directed to infrastructure projects that adopt adaptation criteria; and

(5) integrating circular economy policies into industrial activity, covering the entire production cycle. These policies would cover especially energy efficiency and emission areas.

CIRCULAR ECONOMY

Within the country, NDC commitments are the development of a national strategy for a circular economy. The Mexican Congress is currently discussing a General Law for Circular Economy and a General Law for Waste Prevention and Management.

CARBON MARKET

The NDC declares that the country is interested in participating in international carbon markets. The General Law on Climate Change has provisions that enable the development of a voluntary emission trading system for carbon-intensive actors, and that could be integrated into international carbon markets.

MAJOR ENVIRONMENTAL REGULATIONS

■ The Special Climate Change Program (first launched in 2009)

A four-year top-down program designed by an inter-ministerial group determined the country's long-term climate change agenda and set medium-term goals for adaptation and mitigation actions.

■ General Law on Climate Change (2012)

The law established provisions to face the adverse effects of climate change and regulate actions for mitigation and adaptation to climate change in Mexico. Its objective is to promote dissemination in adaptation and mitigation to climate change and establish the basis for consultation with society. It also regulates GHG and compound emissions, allowing Mexico to stabilize of its concentrations in the atmosphere.

■ National Climate Change Strategy (2013)

It guides national policy instruments in the medium and long-term to face the consequences of climate change and transition to a competitive, sustainable, and low-carbon economy. It defines the strategic axes and lines of action to be employed based on available data to guide the policies of all government levels. The Strategy, developed by several federal institutions, presented the '*visión 10/20/40*', which indicated landmarks the country aims to achieve in 10, 20, and 40 years.

■ Carbon Tax (2014)

A tax on emissions of GHG produced by fossil fuels, which includes a Special Tax on Production and Services (IEPS) — considered a symbolic tax, for its low rates, allegedly to avoid deep negative externalities in the economy. It is possible to avoid taxation by acquiring carbon credits from registered and certified projects in Mexico.

■ **National Emissions and Emissions Reductions Registry (2014)**

Database that compiles the country's emission sources of GHG; the registering is mandatory for all those that emit, directly or indirectly, over 25,000 tCO₂e.

■ **Energy reform (laws and regulations) (2014)**

It was primarily focused on strengthening and modernizing the PMEX and CFE while maintaining its monopoly over the country's planning and control over its national electrical system. The reform also sought to reduce the energy cost (light and gas) for both businesses and households, and foster investments in the sector, from private actors, especially for renewable sources.

■ **National Strategy to Reduce Emissions from Deforestation and Forest Degradation (2014)**

It seeks to strengthen the country's management and administration capacity regarding its natural resources, mainly by coordinating actions directed to recover unused and degraded soils and focusing on the conservation of native vegetation and biodiversity.

■ **National Climate Change System (2015)**

It was planned to function as the permanent mechanism for consultation, communication, collaboration, coordination with the national climate policy that comprises many institutional arrangements regarding the sector.

MAJOR DOMESTIC ACTORS

• **Secretariat of Environment and Natural Resources**

(Secretaría de Medio Ambiente y Recursos Naturales)

• **National Institute of Ecology and Climate Change**

(Instituto Nacional de Ecología y Cambio Climático)

• **Intersecretarial Commission on Climate Change**

(Comisión Intersacretarial de Cambio Climático)

• **Council on Climate Change**

(Consejo de Cambio Climático)



5.

Findings

5.1

Companies' Best Practices and Shortcomings

We created parameters for identifying corporations' best practices according to the lessons learned from the literature on private sustainability governance.

Our first step in the qualitative evaluation of companies' sustainability reports was to determine whether environmental action, circular economy, stakeholder engagement, and supplier support initiatives were absent or present in each company's report. We summarized their specific contents, and this information can be found in each corporation's factsheet.

In this section, we pinpoint resemblances and divergences between companies within and across countries and economic sectors. The goal is to review both positive and negative features of corporate sustainability initiatives in Latin America.

Stakeholder Engagement

Regarding stakeholder engagement, many of the initiatives mentioned in company reports do not constitute real engagement and dialogue with affected communities, but are just philanthropic actions. Companies from the Agrifood sector mentioned several assistance programs and donations to benefit local communities (e.g., Marfrig, Cresud, and Bachoco). Some even have educational/professional development or aid research activities (e.g., JBS and Amaggi). However, contrary to expectations, companies in this sector have rarely and/or superficially mentioned their engagement with indigenous people (we found no mention in the reports by BRF, JBS, Arcor, Cursea, Bachoco). Some exceptions are (1) Amaggi, whose reforestation project developed in partnership with the *Associação Rede de Sementes do Xingu* (ARSX) aims to benefit rural and indigenous communities; (2) Marfrig, which claims to avoid land conflicts with indigenous groups and to cross-reference their data with the National Indian Foundation (FUNAI) to identify offending producers; and (3) Daabon, whose Human Rights Policy includes the rights of traditional communities.

In the Oil/Energy sector, YPF has had a series of problems with indigenous leaders in territories where the company operates, mainly due to land claims and conflicts due to pollution resulting from the company's activities. It resulted in government involvement and YPF initiatives to open communication channels with community leaders, such as regular contact and public hearings. Ecopetrol also faces significant conflicts with indigenous communities (e.g., no prior consultations before exploring sacred ground and exploitation of indigenous labor). Still, the company claims to conduct dialogue and consultations with Afro-Colombian communities and indigenous peoples.

Additionally, Petrobras manages many types of socioeconomic development programs aimed at traditional/indigenous communities, among other things. Moreover, Pemex's Social License to operate analyses social and environmental impacts regarding historical and archaeological sites and indigenous ceremonial centers, etc. Terpel, however, does not mention specific initiatives regarding traditional communities / indigenous peoples in

their report.

In the Mining Sector, Vale's Internationalization of Relationship Standards with Local Communities Reports considered indigenous/traditional communities involved in countries where it operates. During the pandemic, Mineros developed social programs aimed at Indigenous and Afro-Colombian communities, among other initiatives; Mexico Group structured interaction plans and dialogues, such as an ethnographic study conducted in 2020; and Industrias Peñoles' Social Management Plan intends to increase the participation of traditional/indigenous societies.

In the Vegetables, Cellulose, and Paper sector, Suzano was involved in a 2007 conflict due to the overlapping of indigenous lands with the company's operations, and now has dialogues with traditional/indigenous communities and also conducts cultural and socioeconomic projects for this community. Klabin, in turn, maps traditional/indigenous communities living in the company's area of influence with whom maintains dialogues and social actions.

Supplier Support

Although all companies in the agrifood sector claim to require some level of environmental action from suppliers, contrary to expectations, there was no mention of paying premium prices (also absent in all the other sectors). Citrusuco describes a partnership with the Family Farming Rural Producers Cooperative, through which it ensures a minimum price to certified family farmers. However, Citrusuco was investigated for slave labor in its farm suppliers in 2013, 2018.

Some companies, such as Cresud and Bachoco, did not mention any supplier support at all. Others stated they provide technical capacity for guidance, support (e.g., Amaggi), and even financial instruments for non-compliant suppliers (e.g., Marfrig). The Marfrig Club program stands out by offering a support hub for suppliers who have problems adapting to its requirements to integrate into their production chain. Finally, companies also mentioned cooperative actions with smallholders (examples include Daabon's Alliance of Small Producers; JBS reference to the Social Fuel Seal; and Manuelita's technical assistance to small agricultural suppliers).

In the Oil/Energy and Mining sectors, supplier support includes YPF's Responsible and Inclusive Procurement project, which facilitates access, participation, and contractual opportunities for supplier companies/organizations that employ vulnerable groups, creating a seal to identify these practices. In turn, Tecpetrol and Ternium support a program created by the Techint group (ProPymes Program) to help Small to Medium Enterprise (SME) clients and supplier companies; and Terpel gives preference to purchases from SMEs and local suppliers (so do Visa, Mineros, and Mexico Group). Besides, an initiative between Peñoles with *Fundación ProEmpleo* (ProEmpleo Foundation) created nine small companies (e.g., personnel transportation, cleaning, and food service) that were incorporated into the supply chain. In addition, Vale's Inove Program and InoveCapital are dedicated to supplier support, including financing and capacity-building for local suppliers, as well as the possibility of anticipated payment of invoices for products and services. Finally, Petrobras was granted the Social Fuel Seal; *Petrobras Biocombustível* (Petrobras Biofuel) provided a bonus of BRL 1,151 million to family farm cooperatives in 2020, and Petrobras' More Value Program anticipated payment for goods/services yet to be delivered by suppliers who comply with contractual obligations to alleviate them during the Covid-19 crisis.

Virtually no initiatives specifically aimed at supporting suppliers were identified in the Automotive Sector. An interesting exception is Nematik, which mentions four support programs in 2020: Supply Financing Program, Sustainability Roundtable, EcoVadis (also adopted by Klabin), and Scope 3 emission measurement (in this process, Nematik helps suppliers identify opportunities for improvement). Metalsa also claims to promote supplier development programs, although it does not mention/explain them in its report. In the Vegetables, Cellulose, and Paper sector, both Suzano and Klabin subsidized suppliers during the Covid-19 crisis.

Scope Emissions

Regarding the item “Commitments, Standards and Associations Participation”, it is worth mentioning that, in addition to referring to the standards used (or not) by companies to calculate their emissions, we highlighted under “Environmental Action” whether corporations disclose information about different scopes’ emissions (1, 2, and 3)⁴⁷.

The Greenhouse Gas Protocol⁴⁸ — classified by Jessica Green (2014) as an example of entrepreneurial⁴⁹ private authority — is one of the most (if not the most) used international standards for measuring, managing, and reporting GHG emissions. In addition to offering online learning solutions for patterns and calculations, it also provides tools for companies to develop comprehensive inventories. The “Corporate Value Chain⁵⁰” emissions, commonly known as “Scope 3”, are one of the more recent standards developed by the GHG Protocol. GHG Protocol arose from a partnership between the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). They worked in partnership with four governments and domestic institutions to develop national programs tailored to the needs of the countries in question, two of which were Brazil and Mexico (alongside India and Philippines).

Launched in 2008, the Programa Brasileiro GHG Protocol is a collaboration between WBCSD and WRI with Brazil’s Ministry of Environment (MMA), the Brazilian Business Council for Sustainable Development (CEBDs), the Center for Sustainability Studies of the Fundação Getulio Vargas (GVces)⁵¹. It promotes voluntary green management in Brazil by enhancing technical and institutional capacity for GHG accounting and reporting at the organizational level. GHG inventories are published on an online platform — the Public Emissions Registry⁵² —, currently the largest database of corporate inventories in Latin America.

Among our selected companies, Amaggi, BRF, CBMM, JBS, Klabin, Marfrig, Petrobras, Suzano,

47. Scope 1 calculates a company’s direct emissions from its controlled or owned sources. Scope 2 refers to an enterprise’s indirect emissions related to purchasing electricity, steam, heat, or cooling from third parties to carry out its activities. Scope 3, in its turn, refers to all other indirect emissions of a company, that is, those released in activities by sources not controlled by it, such as business trips or purchases, for example. Therefore, Scope 3 considers emissions from its entire value chain, usually being the company’s most significant share of the carbon footprint, and therefore allows for a more encompassing level of analysis of a company’s contribution to GHG emissions.

48. For more information about that, please refer to <https://ghgprotocol.org/>.

49. Jessica Green defines *private authority* as rule-making and standard-setting activity by non-state actors that others adopt, differentiating between delegated and entrepreneurial private authority (2014). While the former consists of implementation and monitoring functions delegated to non-state actors in multilateral environmental agreements (MEAs) — not a novel phenomenon and one that still relies on the state as the source of authority —, the latter is a more recent, dynamic, and fast-growing practice. Entrepreneurial private authority generally comes in the form of privately created rules that govern firms’ social and environmental practices and supply chains.

50. See <https://ghgprotocol.org/scope3-standard-online-course>.

51. See <https://ghgprotocol.org/brazil-ghg-program>.

52. See <http://registropublicodeemissoes.com.br/>. On the website, it is possible to find the years each company published their emissions inventory and rating: bronze, silver, or gold.

Vale, and Ternium Brazil LTDA (the Brazilian subsidiary) have all released inventories on the Brazilian GHG Protocol Program, and Nexa has recently embraced the GHG Protocol to calculate its emissions. BrasilAgro indicated that it has not yet a defined methodology to calculate its emissions, although it is currently establishing partnerships to map and measure carbon capture in its rural lands.

The Mexico GHG Program (*Programa GEI México*) is also a voluntary GHG accounting and reporting program, which was created in 2004 — a partnership between the Secretariat of the Environment and Natural Resources of Mexico (SEMARNAT) and Mexican the Commission of the Business Coordinating Council for Sustainable Development (CESPEDES), with technical support from WBCSD and WRI⁵³. In 2012, Mexico's government passed the General Law on Climate Change, which set forth requirements for mandatory measuring, reporting, and verification of corporate emissions and established a National Emissions Registry (*Registro Nacional de Emisiones*⁵⁴ — RENE). This platform allows for determining emissions throughout companies' value chains. Mexican companies that directly or indirectly emit over 25,000 tCO₂e are required to register their GHG emissions in this national database. All the Mexican companies in the survey emit over 25,000 tCO₂e. Pemex is the only one that mentions RENE in their report.

Mexican companies adopt diverse strategies regarding standards for measuring, managing, and reporting of GHG emissions, including (1) Bio Pappel calculations are based on national metrics, and it uses US EPA A-P42 factors to disclose emissions through the *Programa GEI México*; (2) Grupo Mexico emissions are measured by the GHG Protocol guidelines; (3) Industrias Peñoles calculates the emissions based on a combination of international standards (such as the GHG Protocol and the IPCC) with Mexican legislation; (4) Pemex combines internal techniques with the international standard US EPA A-P42; (5) Nemak calculates its GHG emissions based on the GHG Protocol; and (6) Bachoco does not specify the methodology used.

Argentina and Colombia do not have national programs for the GHG Protocol. Despite the variation in the methodologies used, most analyzed companies disclosed their GHG emissions in their reports. The Argentinian YPF uses international methodologies and standards (The API Compendium (2009), 2006 IPCC Guidelines for National GHG Inventories, and US EPA A-P42) to define its emissions targets. Mineros created a methodology based on Colombian government standards with TCFD international standards, defining limits according to national legislation. Moreover, the Colombian Ecopetrol calculates emissions based on ISO 14064-1 and the GHG Protocol methodologies.

Companies that calculate Scope 3 can assess where most emissions come from and strategize how to circumvent/mitigate emissions along their value chains. It demonstrates a greater effort to be more transparent about its contribution to the global carbon footprint. Reviewing scope emission data by sector, the Brazilians JBS, Mafrig, and Amaggi⁵⁵ disclose scope 3 emissions in the agrifood sector, while the Colombian Grupo Nutresa discloses only scopes 1 and 2, and Daabon and the Argentinian Cresud do not disclose GHG emissions. Bachoco discloses the tons of CO₂ produced by Electricity Generation and Stationary Combustion in Mexico and the United States separately, but it does not divide its emissions into scopes 1, 2, and 3.

53. See <https://ghgprotocol.org/mexico-ghg-program>.

54. At the RENE portal, one can find reports about national emissions by industrial sectors. For more information, please access <https://www.gob.mx/semarnat/acciones-y-programas/registro-nacional-de-emisiones-rene>.

55. Regarding BRF, its scope 3 emission calculation in 2020 was limited in covering data from business trips, waste generated in operations, and transport and distribution in Brazil. For 2021, the company intends to expand the calculation along its supply chain.

In the Oil/Energy sector, only three of the companies disclose scope 3 emissions: the Brazilian Petrobras and the Colombians Terpel and Ecopetrol. In the Mining sector, half of the companies disclose scope 3 emissions: Vale, Ternium, Grupo Mexico, and CBMM. In the Automotive Sector, Nampak stands out as the only company measuring scope 3 emissions (for the first time in 2020); lochpe-Maxion's 2020 goal is to measure 100% of its CO₂ emissions, but the 2019 report was limited to calculating and disclosing scopes 1 and 2. Finally, in the Vegetables, Cellulose, and Paper sector, Suzano has a digital monitoring system capable of showing CO₂ variations in real-time; Klabin and Bio Pappel disclose scopes only 1 and 2, and Becele does not disclose emissions.

Covid-19 Responses

Finally, among the various challenges brought by the Covid-19 pandemic, it has also exposed the fragility of globally dispersed, just-in-time production chains, with multiple countries suffering disruptions to supply medical equipment, medicine, and food. As a result, there has been an increase in calls for protectionist measures, as well as nationalization and diversification supply chain (Marzano 2021). This had a direct impact on companies and workers, thus requiring corporations' solutions too. Out of the 34 companies analyzed, 24 released reports in 2021 covering the year 2020⁵⁶. All 24 companies presented a response plan to combat the Covid-19 pandemic and adapted their internal and community communication channels to digital formats.

In addition to national legislation that imposed a pause in activities and social distancing measures, many companies went further, presenting affirmative actions for the donation of hygienic materials (such as masks and alcohol), purchase of respirators, and support for hospitals. Some were also engaged in awareness campaigns within their facilities and the communities under their influence. Furthermore, some even presented support programs for small and medium-sized customers and suppliers severely affected by the crisis. The sustenance of Petrobras' suppliers, the renegotiation of contracts by Ternium, and the support provided to the communities by Nutresa and Suzano, and other companies are good examples of best practices to face the pandemic crisis. However, many social projects involving face-to-face activities had to be suspended indefinitely. One company that stood out negatively in this scenario was Pemex. Although its 2020 report has not yet been released, media coverage mentions a high rate of sick people and disease casualties, as noted in its factsheet under "challenges".

5.2

Connecting Companies' Initiatives and NDCs

To what extent is the environmental action of companies encompassed in NDCs? Sustainable business behavior can be *directly* or *indirectly* mentioned in an NDC. Argentina, Colombia, and Mexico directly mention the private sector in their NDCs, particularly concerning their "production and infrastructure" targets. While all of them mention the need for new industry standards, each NDC provides a distinct level of detail. Brazil, however, is not explicit about coordination with the private sector when it refers to new standards of clean technology and energy efficiency in production to foster the development of low carbon infrastructure.

56. JBS' analyzed report is from 2019 operations, as the 2020 report was only released at the end of July 2021, when the analysis of the company was already completed. It is also worthy of noting that the mining sector was the only one with 100% of companies with reports from 2020 released by the conclusion of this research.

Argentina mentions that new production standards shall be developed in coordination with the private sector, especially extractive industries. Mexico directly refers in its NDC to the support of sustainable production and consumption practices, as well as of financial mechanisms and private investments focused on adaptation in the primary production and infrastructure sectors. Finally, Colombia aims to increase small, medium, and large companies implementing adaptation measures in prioritized sectors (Energy, Transportation, Agriculture, Housing, Health, Commerce, Tourism, and Industry). Colombia's explicit mention to the private sector in its NDC also resonates in national laws and policies — National Climate Change Policy (2015); National System of Climate Change (2016); and Climate Change Law (2018) —, particularly by focusing on their participation in decision-making and sustainable management.

Probably correlated to Colombia's direct and explicit mention to the private sector in its NDC as well as its environmental laws and policies, the G12 stands out as a group of Colombian companies from different sectors that affirm their alignment with the government in advancing the national sustainability agenda and have practices aligned with the Colombian NDC. Out of the companies analyzed, the following are part of this group⁵⁷: Nutresa (agrifood/private), Terpel (oil/private), and Ecopetrol (oil/state-owned).

Although companies can and should play an important part in fighting environmental problems such as climate change, their direct mention in NDCs range from superficial to virtually non-existent; nonetheless, business behavior is also regulated indirectly by all NDCs. This happens when states impose environmental requirements on all subjects under their jurisdiction, including therefore companies. For example, measures to fight deforestation, such as the one foreseen in the 2012 Brazilian Forest Code and the Colombian Strategy for Reducing Emissions from Deforestation and Forest Degradation, apply to and must be followed by companies and businesses. In this sense, companies follow the law when they include it in their sustainability reports and adhere to the same obligations foreseen by public regulation.

As examples, Nutresa, BrasilAgro, and Iochpe-Maxion explicitly refer to compliance with environmental legislation. BrasilAgro also mentions the request for suppliers' compliance with national environmental legislation, and Iochpe-Maxion cites the increasingly demanding national legislation regarding GHG emissions reduction as one of the important factors for its adoption of more efficient and eco-friendly management. Almost all companies mention sustainable development goals (SDGs). Nutresa stands out for framing its ESG policies in terms of SDGs, indicating which SDG each policy/program is related to at all times.

Companies also claim to be aligned with NDCs: Terpel commits to reducing GHG emissions by 20% by 2030, aligning with the Colombian NDC. According to Pemex's report, the emission reduction defined for 2019-2021 is consistent with the Mexican NDC. Moreover, the Argentinian Ternium claims to align with the Paris Agreement in terms of emission reductions and a 20% decarbonization target by 2030 (with 2018 as the baseline).

On an important note, Argentina, Brazil, and Colombia have announced carbon-neutrality targets. In the corporate reports analyzed, we found that some companies have also recently made commitments to carbon neutrality and/or net-zero emissions. Examples include the 2020 BRF's Sustainability Plan, which commits to implementing a carbon neutral product line by 2021; Marfrig has a Carne Carbono Neutro initiative; Nutresa has four carbon neutral brands; JBS participates at Net Zero (SBT) Commitment; and Nematik created a climate task force responsible for implementing its roadmap to net zero. Additionally, Vale

57. This information is marked in the profile of each one with more details.

is committed to becoming a carbon-neutral mining company (Scopes 1 and 2) by 2050; and Suzano joined the Climate Action 100+ in 2020, a global initiative by investors interested in engaging companies in developing sound climate change governance, including an action plan towards carbon neutrality by 2050.

In addition to mentioning NDCs, SDGs, and national law in their reports, companies can voluntarily commit to and follow more stringent private sustainability commitments. For example, the Soy Moratorium — a commitment not to trade or finance soy produced in the Amazon Biome, which is considered the main zero-deforestation benchmark (WWF-Brazil 2016) — imposes more stringent deforestation criteria than the Brazilian national legislation. While the Brazilian Forest Code (Brazil 2012) obliges private landowners in the Amazon region to reserve 80% of their property with native vegetation intact (“legal reserve”), which means that 20% of the properties are still allowed to be deforested by law, the Soy Moratorium imposes a 100% ban. Therefore, companies like Amaggi⁵⁸, a signatory of this agreement, voluntarily commit to more stringent environmental obligations than those foreseen in the national legislation. Another example is the YPF Luz Program, which claims to have exceeded the Argentinian law requirement for thermal and renewable electric energy generation in 2019 (pages 41–43).

Besides national targets regarding “production and infrastructure”, three other topics are relevant when comparing companies’ strategies and NDCs: circular economy, carbon markets and public procurement policies.

Circular Economy

Argentina, Colombia, and Mexico explicitly mention the “circular economy” concept in their updated NDCs, with Brazil being the only exception. Argentina and Colombia see it as a critical component of their sustainability transition to a more sustainable future. While Argentina has a National Circular Economy Strategy (2019), and Colombia cites a Circular Economy National Strategy (2018) that includes efficiency measures regarding the use of water, energy, materials, and waste, the Mexican Congress is currently discussing a General Law for Circular Economy and a General Law for Waste Prevention and Management.

Although the concept of circular economy is not addressed in the Brazilian NDC, Brazil has a National Solid Waste Policy (Law 12.305/10), and most of the Brazilian companies analyzed have Reduce, Recycle, and Reuse (RRR) projects in their operations, which is also stimulated by the financial savings and the optimization that the company achieves through these activities. Many have well-defined reduction and reuse targets, such as BRF, Marfrig, and Nexa Resource. Others such as JBS have units dedicated exclusively to waste treatment and recycling. Finally, Suzano and Klabin stand out because their activities and products have a very high degree of reuse, which is typical of the pulp and paper industry. These companies claim to invest heavily in R&D to improve their reuse, recycling, and optimization techniques and supporting the selective collection and work of waste pickers in nearby communities.

58. “Commitment established by industries and exporters affiliated to the Brazilian Association of Industries of Vegetable Oils (ABIOVE) and the National Association of Cereal Exporters (ANEC) not to trade Soy from deforested areas of the Amazon biome after 2008. AMAGGI joined the moratorium in 2006 and annually received an external audit to certify compliance with the agreement.” (Amaggi’s report of 2019, page 24). Of the companies analyzed, only Amaggi appears to be a signatory of the agreement according to the current version of corporate sustainability reports analyzed.

Carbon Markets

Carbon tax and carbon market rules also have direct implications for business behavior. Mexico implemented a tax on GHG emissions from fossil fuels in 2014, which applies to the high CO₂ emission content compared to natural gas. The 2017 Colombian tax reform introduced a carbon tax on petroleum products, natural gas, mineral coal, etc. Furthermore, Argentina imposed a carbon tax on several sectors in 2018, including solid and liquid fuel, oil, mineral coal, and petroleum coke.

While Argentina and Colombia do not mention carbon market initiatives in their NDC, Mexico explicitly declares its interest in participating in international carbon markets and refers to the provisions as mentioned earlier of its General Law on Climate Change, which enables the development of a voluntary emission trading system (ETS) for carbon-intensive actors and could be integrated to international carbon markets. Industrias Peñoles, for example, will participate in a pilot test of an ETS for Mexico, created under said law.

According to the Carbon Pricing Dashboard (The World Bank Group 2021), not only did Mexico launch a pilot ETS in 2020 covering power, oil & gas, and industrial sectors (accounting for approximately 40% of the country's GHG emissions), but Colombia is also making progress. Colombia is considering an ETS with other jurisdictions as part of dialogues in the Pacific Alliance and the 'Carbon Pricing in the Americas' initiative to explore regional carbon pricing (ibid.).

Brazil also mentions a voluntary carbon market project focused on investments in forest conservation (Floresta+ Program) in its NDC, which enables a policy for environmental services payments. Besides, according to the Carbon Pricing Dashboard (ibid.), Brazil's National Climate Change Policy enacted in December 2009 aims to promote the development of a Brazilian market for emissions reductions and other goals. As part of its activities under the Partnership for Market Implementation (PMR), the Brazilian government studies the possible market instruments to meet Brazil's mitigation targets and reduce overall mitigation costs. The country is currently considering adhering to the PMR (ibid.). The Market Readiness Project team in Brazil also met with private sector representatives who support the carbon pricing agenda in Brazil and members of civil society organizations (ibid.).

Brazil also refers in its NDC to *RenovaBio*, the National Policy for Biofuels approved in 2017 (Federal Law 13.576) establishing mandatory goals for fuel distributors to purchase biofuels. It foresees that fuel distributors must purchase specific volumes of certificates to achieve their targets, representing emissions reductions related to biofuels' substitution of fossil fuels. Trades in Decarbonization Credits (CBIOs) started in June 2020, and public consultations are ongoing (ibid.).

More importantly, when it comes to carbon pricing and carbon markets, an interesting and innovative case shows companies going further than their governments instead of shielding themselves in the state's shadow. This is due to a unique ETS at the corporate level in Brazil (Bartlett 2014). Since 2013, a group of leading companies has participated in a voluntary ETS simulation (*Empresas Pelo Clima* — EPC)⁵⁹ to gain experience and develop proposals for an ETS in the country. This ETS works based on the Brazilian GHG Protocol

59. The ETS simulation is coordinated by the Center for Sustainability Studies of the Business Management School at the Getulio Vargas Foundation (FGV-EASP) and delivered in partnership with the Rio de Janeiro Green Stock Exchange (BVRio — Bolsa Verde do Rio de Janeiro) — For more on than please refer to <https://eaesp.fgv.br/centros/centro-estudos-sustentabilidade/projetos/simulacao-comercio-emissoes>.

Program, and trading was undertaken in 2020 with the CarbonSim simulation platform (The World Bank Group 2021). Companies from our Atlas that partake in EPC are Amaggi (in 2017 and 2018 cycles), Petrobras (2017 and 2018), Klabin (from 2014 to 2018), JBS (2016), Suzano (from 2014 to 2018), Ternium — the Brazilian subsidiary (2017 and 2018), Vale (from 2014 to 2017), and USIMINAS — currently owned/ controlled by Ternium (2018)⁶⁰.

Public Procurement Policies

Finally, it caught our attention that public procurement policies were not explicitly mentioned in any selected countries' NDCs. There are some attractive, innovative measures such as the 2020 Argentinian “Yolanda Law,” which aims to ensure mandatory capacitation of public servants on themes related to environmental issues with a focus on sustainable development and climate change and based solely on the NDCs. However, it is unclear what kind of environmental requirements governments impose on companies for their public bids. Public procurement is an important policy strategy that can shape and encourage sustainable business behavior, but it seems to be underused. Looking beyond their NDCs, we found that Argentina, Brazil, and Mexico have guidelines⁶¹, while Colombia seems to have made further developments: in addition to tools and guidelines, it has an action plan for sustainable public purchasing (National Action Plan 2016–2020)⁶². ■

60. According to Final Reports of 2014 to 2018 cycles available at <https://eaesp.fgv.br/en/study-centers/center-sustainability-studies/projects/emissions-trading-simulation>.

61. For more information on public procurement policies, please refer to The Inter-American Network on Government Procurement (INGP) website (<http://ricg.org/en/home-2/>) and additional links. Brazil: <https://antigo.comprasgovernamentais.gov.br/index.php/sustentabilidade>; https://www.cepal.org/sites/default/files/publication/files/41009/S1601328_pt.pdf. Argentina: <https://www.argentina.gob.ar/jefatura/innovacion-publica/oficina-nacional-de-contrataciones-onc/compras-publicas-sustentables>. Mexico: <https://www.gob.mx/sfp/acciones-y-programas/contrataciones-publicas-sustentables>.

62. Colombia: <https://www.minambiente.gov.co/index.php/component/content/article/155-plantilla-asuntos-ambientales-y-sectorial-y-urbana-8>; https://www.minambiente.gov.co/images/AsuntosAmbientalesySectorialUrbana/pdf/compras_p%C3%BAlicas/Plan_de_Accion_Nacional_de_Compras_Publicas_Sostenibles_2016-2020.pdf.

**The Latin
American Atlas
of Corporate
Sustainability
Initiatives**



Conclusions

This report developed parameters to gather information and evaluate corporations' sustainability initiatives based on lessons learned from the private governance literature. Using qualitative research methodology and primary and secondary data sources (specifically the single most recent version of a company's sustainability report available on their website), it presents 34 factsheets that constitute the first edition of our series of The Latin American Atlas of Corporate Sustainability Initiatives. This report also provides an overview of NDCs, key environmental legislation, and actors in Argentina, Brazil, Colombia, and Mexico. Our key findings discuss positive and negative features regarding companies' initiatives within and across countries and economic sectors based on all the information collected. This conclusion complements the analysis by summarizing key environmental challenges and providing ideas for future research.

Undoubtedly, one of the biggest challenges in the agrifood sector is deforestation. As a result, a large part of Brazilian agrifood companies have invested considerably in technologies to monitor rural production, aiming to reduce deforestation and the illegal occupation of forest reserves and indigenous lands. JBS, Amaggi, and Marfrig, for example, mentioned the use of monitoring and tracking technologies such as satellite, geospatial, and blockchain. Despite such mentions, deforestation cases are still connected to their activities, which are often denounced (under "challenges"). The increase in deforestation rates in Brazil shows that national laws have not been properly implemented, and business sustainability initiatives have not been sufficient to solve this problem. Agrifood companies have shown an increasing concern in demonstrating the quality of their products and the dignified treatment of animals' lives, which is reflected in the search for international seals, external auditing, and open communication channels with consumers. In this sense, many companies' initiatives are not guided by national legislation but by the culture of greater social pressure around these issues, which has gained relevance in consumer markets worldwide. Nonetheless, cattle raising in particular still face important challenges since it also produces methane gas, considered as one of the most aggressive to climate change according to the latest IPCC report⁶³.

It is also worth noting that the Oil/Energy sector is the only one that has four state-owned companies among those chosen for this Atlas, compared to three private companies. Overall, oil leakage is a common and recurring problem for companies in this sector, and accident response training has been gaining more attention in recent reports. Nonetheless, companies' efforts to disclose sustainability information are notable: Many of their websites provide reports from the early 2000s (from 2004 to 2013), with an emphasis on Pemex, which uploaded its first "Safety, Health and Environment Report" in 1999, when there was a much lower demand from stakeholders such as investors, NGOs, and civil organizations in favor of environmental preservation and fewer legal tools to require this type of information.

Additionally, the two most pressing challenges facing the Mining sector are related to risks to employees' safety and dam barriers control due to the very nature of mining activities. As they are sensitive issues, most companies have well-structured plans for training employees and responding to accidents, as well as investment in R&D, such as technologies

63. See IPCC Sixth Assessment Report on: <https://www.ipcc.ch/report/ar6/wg1>.

for monitoring barriers to prevent their breakdown. Although these technologies can reduce the risk, they do not prevent severe serious accidents with fatalities, injuries, and environmental consequences, as Vale tragedies in 2015 and 2019.

Automotive was the sector that offered the simplest reports (more unclear or missing information) and with the fewest programs aimed at the development of suppliers and communities. Only one company (Nemak) discloses scope 3 emissions, and none of the reports mention the relationship with traditional/indigenous communities, and only a few present any program aimed at reforestation or maintaining biodiversity. However, these companies have considerably lower revenue than those from other sectors. On the last two shortcomings mentioned, it is possible to argue that their business model requires less occupation and exploration in territories with natural reserves and environmental resources where these traditional/indigenous communities commonly live, compared to companies in the agrifood, oil, and mining sectors, which have far much more remarkable relationship strategies with these communities.

Companies in the Vegetables, Cellulose, and Paper sector are highlighted in solid waste activities (reuse and recycling) and forests and biodiversity management, with Brazilians Suzano and Klabin standing out. They have received high scores and positive highlights in the most recent CDP reports⁶⁴. Despite some reported cases of companies being accused of land grabbing, the number and proportion of these cases are overwhelmingly lower than those in the agrifood sector. It is also worth noting that three of the companies analyzed used Sustainability-Linked Loans (SLL) and Sustainability-Linked Bonds (SLB): Suzano, Klabin, and Metalsa (the latter in the Automotive sector). These are financial instruments that allow the company's development based on economic incentives to improve the conditions of these bonds and debts, as the company achieves the sustainable goals linked to them, but with more flexibility of action⁶⁵ than the traditional green bonds/loans⁶⁵.

When analyzing the different initiatives that companies present in their reports, we recognize their great efforts towards transparency. However, based on the lack of explicit mention to many of the challenges that we bring here based on the repercussion of serious scandals in the media, it is clear that companies still lack transparency in reporting on conflicting matters. A first and important step in assuming responsibilities for socio-environmental impacts of their economic activities is to recognize and report on challenges. However, our evaluation of the reports show that, regarding these serious matters, companies' transparency efforts still fall short of ideal.

Last, we recognize three main ideas for future research: first, an expanded version of this Latin American Atlas could include more countries, sectors, and/or companies (not only multinationals but also small and medium-size); second, to assess the effectiveness of corporate sustainability initiatives, this compendium could be combined with company's specific in-depth case studies, including interviews with business representatives as well as with different stakeholders (consumers, workers, traditional/indigenous communities) who are affected by their economic activities; and third, this Atlas can be revisited in the future to see whether and how companies overcome the shortcomings we have identified as well as to expand the content analyzed, including important governance issues such as corruption and gender and racial diversity and inclusion. ■

64. See the CDP search mechanism to find Suzano B score in the three categories assessed in 2020, while Klabin scored A- in all three categories in the same year, making it a leading company in the sector according to CDP criteria.

65. For more information on this, please refer to <https://www.bloomberg.com/news/articles/2021-02-21/ethical-debt-glossary-esg-slb-sll-kpis-and-more-quicktake>.

Glossary

Acronym	Meaning
ABC	Brazilian Low-Carbon Emission Agriculture Program
AIAG	Automated Industry Action Group
API Compendium (2009)	Compendium of Greenhouse Gas Emissions Methodologies for the Oil Natural Gas Industry by the American Petroleum Institute
ASCM	Association for Supply Chain Management
B2B	Business-to-Business
BCI	Better Cotton Initiative
BNDES	Brazilian Development Bank
BRC	British Retail Consortium
BRSL	Brazilian Roundtable on Sustainable Livestock
CAT	Climate Action Tracker
CCAC	Climate & Clean Air Coalition
CDA	Canadian Dam Association
CDLI	Climate Disclosure Leadership Index
CDP	Carbon Disclosure Project
CEBDS	Brazilian Business Council for Sustainable Development
CERES	Certification of Environmental Standards
CESPEDES	Mexican Commission of the Business Coordinating Council for Sustainable Development
CETESB	Environmental Company of São Paulo State
CHRB	Corporate Human Rights Benchmark
CoC	Codes of Conduct
CONPES	Colombian Strategy for the Implementation of the SDGs
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
DGN	Mexican General Bureau of Standards
DJSI	Dow Jones Sustainability Indices
EITI	Extractive Industries Transparency Initiative
EMS	Environmental Management System
EPC	Businesses for Climate Platform
ESG	Environmental, Social, and Corporate Governance
ETS	Emission Trading System
FSC	Forest Stewardship Council
FSMA	Food Safety Modernization Act
FSSC 22000	Food Safety System Certification 22000
FTSE	Financial Times Stock Exchange Group
FUNAI	Brazilian Indian Foundation
GDP	Gross Domestic Product
GEMI	Global Environmental Management Initiative
GFSI	Global Food Safety Initiative
GHG Protocol	Greenhouse Gas Protocol
GISTM	Global Industry Standard Tailings Management
Global G.A.P	Global Good Agricultural Practices
GMI	Global Methane Initiative
GMP	Good Manufacturing Practices
GMP+ FSA certificate	Feed Safety Assurance certificate by the Good Manufacturing Practices
GRI	Global Reporting Initiative

Acronym	Meaning
GRSB	Global Roundtable for Sustainable Beef
HSEQ	Health, Safety, Environment and Quality
IATF	International Automotive Task Force
IBAMA	Brazilian Institute for the Environment and Renewable Natural Resources
ICMM	International Council on Mining and Metals
ICOLD	International Commission on Large Dams
ICONTEC	Colombian Institute of Technical Standards and Certification
IDH	The Sustainable Trade Initiative
IFRS	International Financial Reporting Standards
IFS	International Food Standard
IIRC	International Integrated Reporting Council
IISI	International Iron and Steel Institute
Imaflora	Institute for Forest and Agricultural Management and Certification
INMETRO	Brazilian National Institute of Metrology, Quality and Technology
IOGP	The International Association of Oil & Gas Producers
IoT	Internet of Things
IPCC	Intergovernmental Panel on Climate Change
IPIECA	The Oil & Gas Industry Guidance by the International Petroleum Industry Environmental Conservation Association
ISCC	International Sustainability & Carbon Certification
ISEAL	International Social and Environmental Accreditation and Labelling Alliance
ISO 14001	ISO for Environmental Management System
ISO 14064-1	ISO for Quantification and Reporting of Greenhouse Gas Emissions and Removals
ISO 20400	ISO for Guidance on Social Responsibility
ISO 45001	ISO for Occupational Health & Safety Management System
ISO 50001	ISO for Energy Management System
ISO 9001	ISO for Quality Management System
ISO	International Organization for Standardization
ITC	International Trade Center
IUCN – WCPA	World Commission on Protected Areas by the International Union for the Conservation of Nature
IZA	International Zinc Association
JAS	Japanese Agricultural Standard
JIPM	Japan Institute of Plant maintenance
LEED	Leadership in Energy and Environmental Design
LWK	Leather Working Group
MAC	Mining Association of Canada
MMA	Brazil's Ministry of Environment
MSI	Multi-Stakeholder Initiatives
NDC	Nationally Determined Contribution
Net Zero	Commitment to neutralize Greenhouse Gas emissions
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-operation and Development
OGCI	Oil and Gas Climate Initiative
OHCHR	The Office of the United Nations High Commissioner for Human Rights
OHS	Occupational Health and Safety
OHSAS 18001	Occupational Health and Safety Assessments Series by the British Standards Institution
PAACO	Professional Animal Auditor Certification Organization
PEFC	Program for the Endorsement of Forest Certification
PPI Awards	Pulp and Paper International Awards

Acronym	Meaning
RedEAmérica	Inter-American Network of Foundations and Business Actions for Grassroots Development
RENE	Mexican National Emissions Registry
RRR	Reduce, Recycle and Reuse
RSPO	Roundtable on Sustainable Palm Oil
RT	Roundtable
RTRS	Roundtable on Responsible Soy
SASB	Sustainability Accounting Standards Board
SBT	Science Based Target
SDGs	Sustainable Development Goals
SDG N° 4	Sustainable Development Goal: Quality Education
SDG N° 6	Sustainable Development Goal: Clean Water and Sanitation
SDG N° 7	Sustainable Development Goal: Affordable and Clean Energy
SDG N° 8	Sustainable Development Goal: Decent Work and Economic Growth
SDG N° 9	Sustainable Development Goal: Industry, Innovation and Infrastructure
SDG N° 13	Sustainable Development Goal: Climate Action
SDG N° 14	Sustainable Development Goal: Life Below Water
SDG N° 15	Sustainable Development Goal: Life On Land
SDG N° 16	Sustainable Development Goal: Peace, Justice, and Strong Institutions
SEMARNAT	Secretariat of Environment, and Natural Resources of Mexico
SFI	Sustainable Forest Initiative
SGS	Société Générale de Surveillance
SLB	Sustainability-Linked Bonds
SLL	Sustainability-Linked Loans
SME	Society for Mining, Metallurgy and Exploration
SMEs	Small and Medium Enterprises
SQF	Safe Quality Food
TCFD	Task Force on Climate-Related Financial Disclosures
TFA	Tropical Forest Alliance
TFA	Tropical Forest Alliance
TNC	The Nature Conservancy
TPI	Transition Pathway Initiative
TPM	Total Productive Maintenance
UNFCCC	United Nations Framework Convention on Climate Change
UNFSS	United Nations Forum on Sustainability Standards
UNGC	United Nations Global Compact
UNICEF	United Nations Children's Emergency Fund
UNIDO	United Nations Industrial Development Organization
US EPA A-P42	Compilation of Air Emissions Factors by The United States Environmental Protection Agency
USDA	United States Agriculture Department
USGBC	U.S. Green Building Council
VSS	Voluntary Sustainability Standards
WAP	World Animal Protection
WBCSD	World Business Council for Sustainable Development
WCA	World Compliance Association
WEC	World Environment Center
WRI	World Resources Institute
WTO	World Trade Organization
WWC	World Water Council
WWF	World Wide Fund for Nature

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