



Sustainability Report

2019



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Message from the Board of Directors

Consistent with our purpose of *Transforming the Future*, in 2019 we continued to advance our mission of producing innovative and sustainable heavy-building solutions that improve people's lives while supporting the development of our communities and the economy.

We play a role in shaping the future through our presence in the construction value chain, one of the most important sectors for a country's progress and prosperity. Producing cement, an essential material in housing and infrastructure development, is one way we deliver on our purpose of transforming the future—especially in a developing country like Brazil, with its high housing and infrastructure deficit.

This represents a challenge but also an opportunity for us: Cimento Apodi is strategically present in and primarily

serves Brazil's North and Northeast markets—two regions that have experienced rapid growth over the last 10 years, and currently account for 25% of the cement consumed in Brazil. We have a presence in virtually all regions in these markets. Cimento Apodi is backed by two strong shareholders, which bolsters our confidence and our positioning. The Dias Branco family and Titan Group have not only provided our Company with professional support, but have shared their experience, expertise and good practices, offering diverse yet mutually reinforcing insights.

Cement sales in Brazil reached a total of 54.5 million metric tons in 2019, an increase of 3.5% compared to the previous year. This has been the first year of growth in total cement sales since 2014. The





improving macroeconomic environment and the real-estate market rebound were the primary drivers of resumed growth, as confidence levels in the construction industry continued to grow. Despite the now-positive indicators, the sector is still recovering from four consecutive years of contraction and still has an idle capacity of approximately 45%.

The fact is that we are still preparing for and optimistically looking forward to a more favorable outlook both for us and for the broader economy. This is a strategic moment for Cimento Apodi and one that will define our future. There is still much room for production and business growth to cater to rising demand. In pursuing this growth, we will at all times act with responsibility—reconciling profits, competitiveness and sustainable practices.

Adauto Farias Júnior

*Chairman of the Board of Directors,
Cimento Apodi*





Message from the CEO

Dear reader,

I am honored to present to you, on behalf of all of us at Cimento Apodi, our Sustainability Report for year 2019. Developing this Report has been a challenge for the entire team, and has provided an opportunity to learn and share experience. I am certain that the end result adequately expresses our belief that responsibility and transparency are fundamental pillars that will strengthen our reputation as a corporate citizen among employees and broader society.

As you will see, we have followed international standards in compiling our data and indicators, and we plan to seek independent assurance of next year's Report.

In this Report, I would like to highlight some of the accomplishments we are proud to have achieved at Apodi. Early in the year, we undertook a complex task that involved literally all departments and leadership within the Company in structuring our Materiality Matrix. Using the five steps of the SDG Compass (an implementation guide developed jointly by the Global Reporting Initiative (GRI), the UN Global Compact and the World Business

Council for Sustainable Development (WBCSD)), we mapped our strategies to the UN Sustainable Development Goals (SDGs). The results from the exercise are detailed in the chapter "How we create value—our material topics" of this Report.

Another highlight in the year was the completion of phase one of an artificial intelligence project in our grinding process, delivering significant energy savings and improved efficiency. The project was a collaboration between the Federal University of Ceara (UFC), Cimento Apodi and Titan Group, in which young talents had an opportunity to truly shine.

We also made important progress in reducing our environmental footprint, especially through the use of alternative fuels, reduced energy consumption, and expanded co-processing and water recycling.





Within our state, I am confident that the Ceara 2050 Platform will play an important role in driving planning and development initiatives in the future. While the goals that have been set are highly ambitious, Cimento Apodi is already actively engaged around six of the eight areas of action within the platform, placing us on a common path forward in creating a better life for citizens. Apodi, along with UFC's Russas campus, is leading the Vale do Jaguaribe Sustainability Committee as a mobilization hub for Ceara 2050.

In the social dimension, our projects have been further structured and are beginning to create value for the communities where we operate, by improving quality of life and providing education opportunities for residents. We are currently working to establish a "core" social investment program, and see significant opportunities in biomass production. We are also supporting development and creating

positive social impact in local communities, with a focus on income opportunities, education and the environment.

In management and governance, we have reaffirmed our commitment to ethics and transparency in doing business. We are currently updating our Compliance policies and have implemented an independent, secure whistleblowing hotline for reporting violations of our Code of Ethics and Business Conduct, internal policies and applicable laws and regulations. We also updated our corporate risk management framework in the year, in an initiative that has improved our understanding of the risks affecting the business and enabled us to target actions to issues that can affect our ability to achieve organizational goals.

We are continually investing in developing our employees and improving our health and safety practices, driven by our belief that achieving the results we aspire for

“We remain firm in our purpose of transforming the future.”



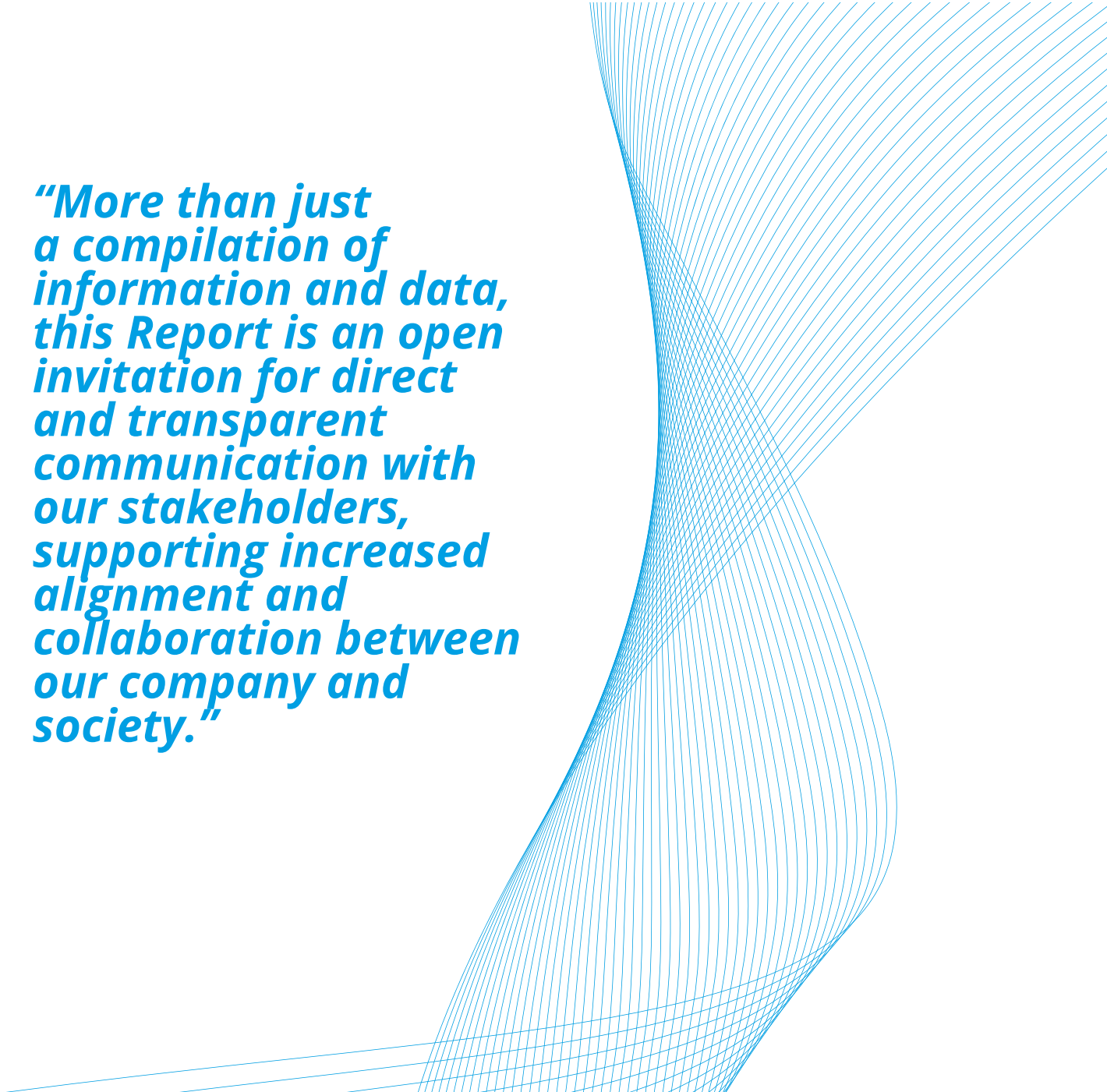
requires a strong, engaged and capable team and a wholesome workplace environment.

I see a promising future ahead for Apodi. With the support of an extremely competent and engaged team of employees and partners, and shareholders who support our culture of innovation and sustainability, we have already begun to reap dividends. And while there is still much to be done, we are clearly on the right path.

We remain firm in our purpose of *Transforming the Future*. and will continue to help build a better world as we pursue operational excellence, customer satisfaction and sustainable business.

Emmanuel Mitsou
CEO, Cimento Apodi

“More than just a compilation of information and data, this Report is an open invitation for direct and transparent communication with our stakeholders, supporting increased alignment and collaboration between our company and society.”





About this Report

To ensure we create long-term value at Cimento Apodi, our strategic thinking and operations are aligned with the principles and values expressed in this, our first Sustainability Report, for fiscal year 2019.

The Report also describes initiatives in the year that put into practice our strategic direction toward sustainable development.

In 2018 Titan Group, one of our shareholders, implemented a robust set of environmental, social and value creation indicators covering the following aspects:

- Group support for the 10 principles of the United Nations Global Compact.
- The sectoral commitments adopted by the Global Cement and Concrete Association.
- The UNCTAD (United Nations Conference on Trade and Development) framework, specifically its “Guidance on Core Indicators for entity reporting on the contribution towards the attainment of the Sustainable Development Goals,” October 2018, which align with the Sustainable Development Goals 2030.

For further information about Titan Group’s proprietary methodology, [click here](#).

In 2019 we built our first materiality matrix in a process that involved an extensive survey of more than 100 stakeholder representatives. The materiality exercise was conducted in accordance with:

- the IIRC (International Integrated Reporting Council) framework.
- the Titan Group materiality methodology for key stakeholders
- SASB (Sustainability Accounting Standards Board) standards
- GRI (Global Reporting Initiative) guidelines and recommendations
- the AA1000 Accountability Principles Standards in assessing stakeholders and economic, social and environmental impacts.

How to navigate this Report

On the upper right corner of the page, click the icons to navigate through the document.

To view additional information, click the links to the performance tables.

Other information

Other information about the company can be found in the Appendixes at the end of the report, and on our website www.cimentoapodi.com.br.

Questions/feedback

For any feedback, questions or suggestions about our Report, please write to: sustentabilidade@cimentoapodi.com.br.

About the COVID-19 pandemic

In 2020 the novel coronavirus (COVID-19) pandemic created a global health crisis that has disrupted nearly every aspect of people’s lives in every part of the world.

We support and are participating in efforts to tackle the pandemic. This Sustainability Report, however, is confined to events, initiatives and projects within fiscal year 2019, and does not include information about our response to and guidance on the COVID-19 pandemic, which can be found at www.cimentoapodi.com.br.



2019 at a glance



700 direct and indirect employees



3,500 hours of training within our Leadership Development Program, engaging 100% of our leadership team



R\$ 115.4 million in taxes paid



1,380 people reached by social programs (including 700 hours of training in our Industrial Process Operator course)



1.3 million metric tons of raw materials mined and quarried



Greater than 15% productivity improvement through the use of artificial intelligence in our grinding operations



1.2 million metric tons of cement produced



1,195 hectares of active quarries



R\$ 27.1 million in investments



R\$ 43.3 million in total spend on suppliers, including 79.9% or R\$ 39.3 million on local suppliers



R\$ 931.6 million in fixed assets



233,000 metric tons of alternative raw materials from other industries



20,000 metric tons of alternative fuels

A full-page photograph showing three workers in safety gear (hard hats, safety glasses, and high-visibility vests) walking along a paved path. They are wearing light-colored long-sleeved shirts and dark blue trousers. The background features a blue safety net, green trees, and a building. The text "Our Company" is overlaid on the left side of the image.

**Our
Company**



Our history

Apodi's first plant in Pecem/CE starts operation in Northeastern Brazil

Apodi Concreto begins operation.

New Distribution Center in Maranhao.

Production starts at Apodi's second plant, in Quixere/CE.

New Distribution Center in Piaui.

New ownership structure:
50% Dias Branco family and 50% Titan Group.

New distribution centers opened in:

- Ceara (3)
- Amazonas
- Pernambuco
- Rio Grande do Norte
- Para

Social and economic assessment conducted in Bom Sucesso, a community near the Quixere plant.

Vale do Jaguaribe Sustainability Committee created.

Corporate Social Responsibility (CSR) Policy launched.

Social investment programs implemented.

Strategic plan reviewed and reformulated.

Artificial intelligence first deployed in grinding operations.

Apodi repositions its brand and launches its "Purpose" manifesto.

Environmental Education Center opened.

2011

2013

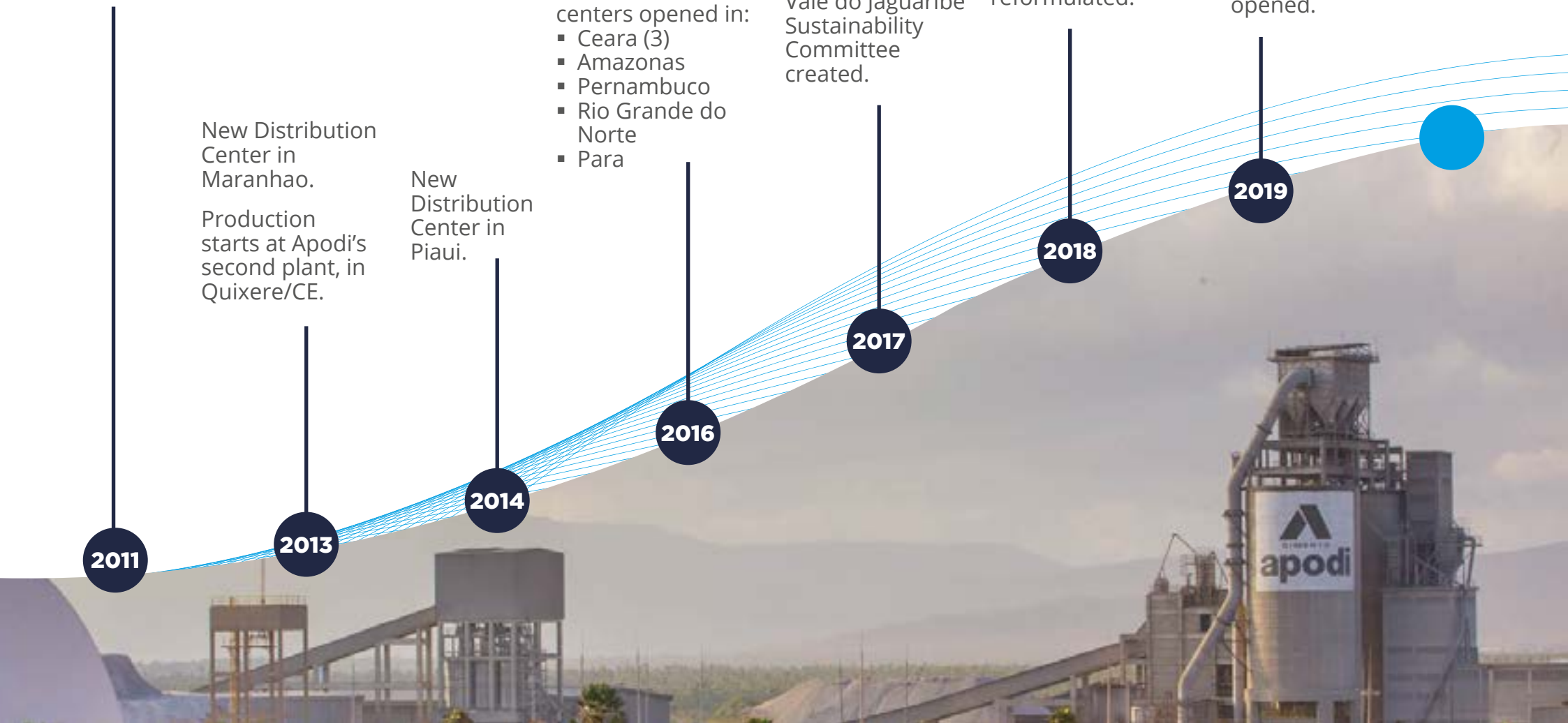
2014

2016

2017

2018

2019





Brand Repositioning

Apodi's DNA is expressed in our Vision, Mission and Values, as well as in our Purpose, which is guided by our belief in a better world.

In 2018 we undertook a comprehensive review and reformulation of our strategic plan. This led in 2019 to a repositioning of our brand to align Apodi's corporate identity and strategic direction with our Purpose and new business strategies.

In March 2019 we organized a major event with our employees to unveil the new brand positioning.

Also as a result of this process, we articulated new attributes that express our organizational identity, as presented below.

[Click here](#) to view a video of the event.





Our Purpose

Transform the **future**.

Our Business

Laying the **foundations** for human development.

Our Mission

Deliver the **best experience** in our industry, with innovation and sustainability.

Our Vision

Inspire people to build a **better world**.



At Apodi we are transforming the future each day

We recognize that little things can have a big impact. Our innovative processes make our products better for the environment; our support services help our customers to become more productive and sustainable; and our work with communities helps them to progress and to prosper.

We do this with the knowledge that our products, services and people are essential in transforming the future—whether it's building new roads or infrastructure or developing new solutions for a more prosperous future.

And with Titan's global support, we can create a self-sufficient culture and leave a legacy for future generations.

At Apodi we are transforming the future.





Our Values

SAFETY

Protecting the health and safety and physical and mental integrity of direct and third-party employees, both within and outside the workplace.



PEOPLE

Providing workplace conditions that support employees in maintaining a healthy work-life balance, giving equal treatment to all employees, respecting diversity and creating a workplace environment that supports development and continuous learning.



EXCELLENCE

Achieving the highest standards of excellence in our industrial processes, products, services and financial results.



RESPECT

Treating and engaging respectfully with all stakeholders, both individually and as a group.



CUSTOMERS

Ensuring customer satisfaction by establishing open and clear communications and building relations based on fairness and integrity.



INNOVATION

Fostering and developing an inquisitive mind, initiative and adaptability, and implementing agile solutions across our operations.



SUSTAINABILITY

Doing business within the principles of sustainability and corporate social responsibility, with a long-term vision that supports the longevity of the business.





Who we are

Cimento Apodi (Companhia Industrial de Cimento Apodi) was founded in 2008 in northeastern Brazil as a closely held corporation.

In February 2011 we started operation with the opening of our grinding plant at the Pecem port complex, and in 2013 we initiated operation of our cement plant in Quixere.

In 2016, we became an international joint venture formed by the Dias Branco Family (Grupo M. Dias Branco) and Titan Group (Titan Cement). Each of the two joint venture partners holds a 50% stake in Cimento Apodi.

[Click here](#) to learn more about our Company.



The Dias Branco Family. The founders and owners of M. Dias Branco. With a country-wide presence and 69 years of history behind it, the company is the Brazilian market leader and one of the world's top 10 producers of biscuits, cookies and pasta. The family also has other investments in the construction and hospitality industries.



Titan Group. A global cement and building materials company with 118 years of industrial experience and history. Based in Greece, the Group is present in more than 15 countries in Europe, Africa, North America and South America. Titan Group currently employs 5,400 people worldwide.





About Cimento Apodi

Our trade name is a tribute to the Apodi Plateau in northeastern Brazil. In the Tupi language, Apodi means STRENGTH!

When our company was founded in 2008, we had multiple investors as shareholders. Our ownership structure underwent a series of changes between 2011 and 2016 until arriving at its current configuration in mid-2016.

With a strategic presence in Brazil's North and Northeast, Cimento Apodi has a 3,000 hectare cement production facility in Quixere, a town in the region of Vale do Jaguaribe, in the state of Ceara, and a grinding plant at the port and industrial complex of Pecem, also in Ceara.

The two units combined have a production capacity of more than two million metric tons of cement per year.

We also have three ready-mix plants, two concrete technology laboratories and nine distribution centers (DCs) strategically positioned to better serve customers in different locations. Our head office is located in Fortaleza, the state capital.

In our industrial operations, we strive for continuous innovation and improvement, and have a number of competitive differentiators, including the following:

- Our plants have modern and more energy-efficient equipment.
- We use artificial intelligence in our cement grinding process (for further information, see "Active collaborations with universities and research institutions" in the chapter "Stakeholder engagement").
- We have cement analysis laboratories and two concrete technology laboratories—one fixed and one mobile—for quality assurance (for further information, see "Customers/business partners" in the chapter "Stakeholder engagement").
- We were the first company in Brazil and Latin America to deploy Waste Heat Recovery (WHR) technology to harness energy through heat exchange/transfer between substances, devices or equipment. This can be used, for example, to transform the heat from exhaust gas into electrical energy.

Our strategic direction essentially revolves around value creation, serving the segments where we operate with excellence, and continually monitoring developments and trends to identify opportunities for improvement and innovation.

We have incorporated this direction in our planning and decision-making. In an increasingly dynamic organizational world, delivering sustainable results requires us to continuously revisit and discuss our strategies to ensure that our management approach and action planning enable us to achieve set goals. We recognize that this is imperative in our business.



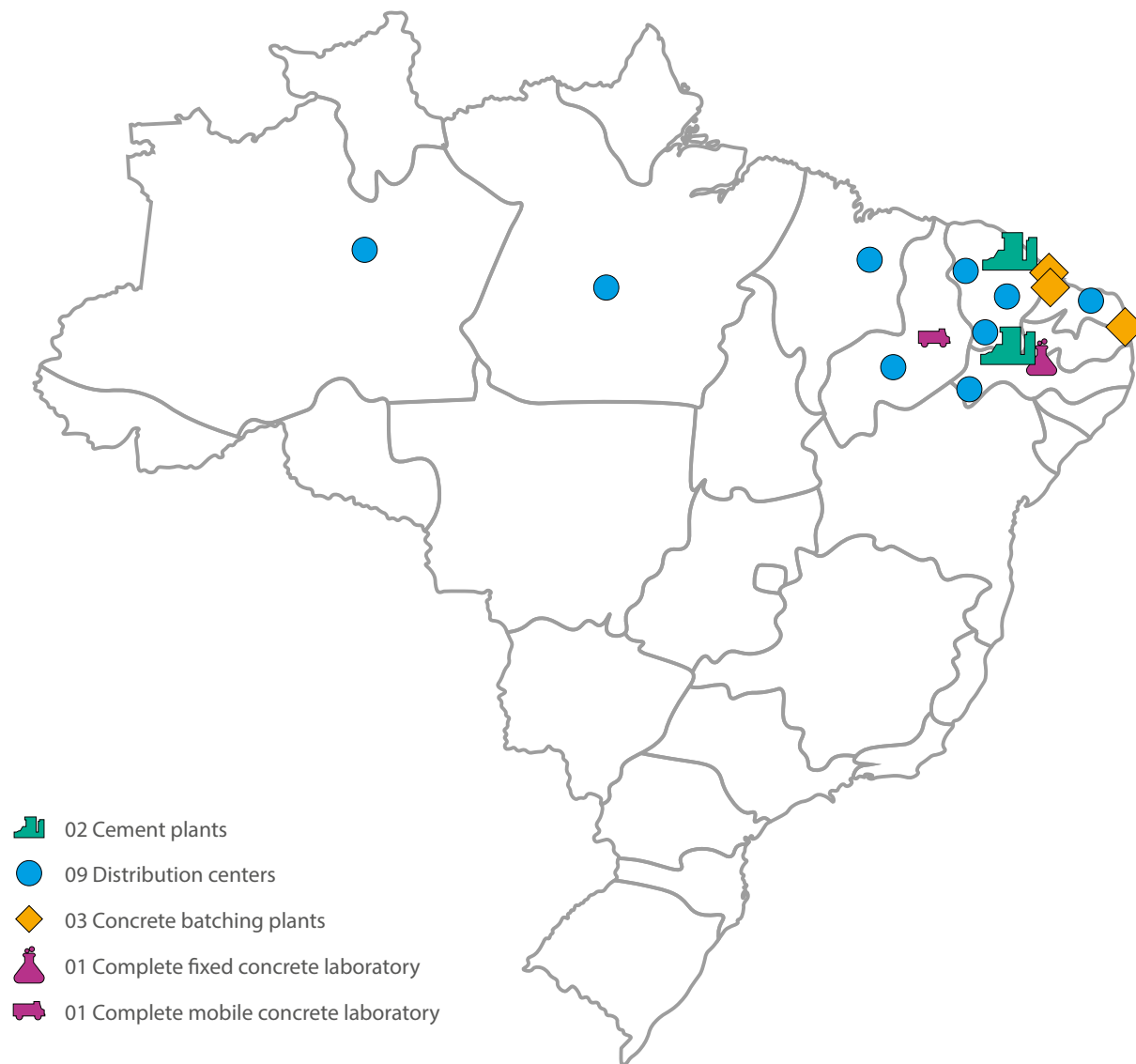
Where we operate

Our operations are primarily located in the North and Northeast of Brazil, as shown in the map opposite:

As a young company of 9 years, our plants all use state-of-the-art equipment.

Our head offices are located in Fortaleza, Ceara.

Advanced logistics arrangements form a capillary distribution network using different modes of transportation - road, rail and river.





Our products

We produce a product mix that caters to different needs in construction, including **cement, concrete and dry mortar**.

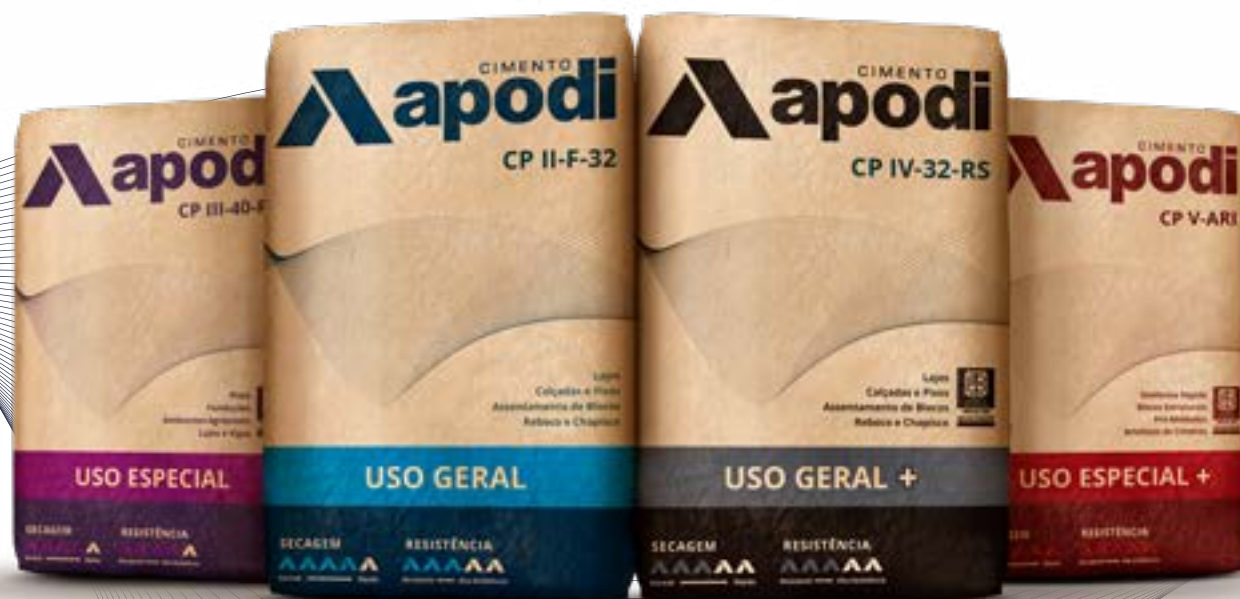
We also co-process materials, fuels and alternative raw materials.

Apodi is committed to providing the highest quality products and services using cutting-edge technology, research and operating processes fully complying with applicable laws and regulations.

All of our facilities have strict quality management systems in place to ensure customer expectations are met. Our products go through multiple stages of quality assurance. To support this process, we have laboratories that carry out tests to verify product quality. These tests are performed for each production batch (for further information about our laboratories, see “Customers/business partners” in the chapter “Stakeholder engagement”).

As part of our quality management process, Cimento Apodi products have Certificates of Conformity from the Brazilian Association of Technical Standards (ABNT).

Our products also have Qualification Certificates from the Brazilian Portland Cement Association (ABCP).





Risk management

In May 2019 we introduced our new **Risk Management Policy**. The Policy sets out guidelines on risk management within the Company based on international standards on corporate risk management, such as COSO ERM and ISO 31000:2018.

Risk management is important for us because through it we are able to safeguard our ability to create value. It helps us to improve performance, drive innovation and achieve business goals. Through risk management, we are able to identify opportunities for improvement and reduce the likelihood, or the impact, of losses. An integrated risk management system supports us in determining risk appetite and achieving set goals.

We have also developed a **risk map** that aids us in prioritizing and targeting efforts to projects and action plans designed to minimize events that could adversely affect our operations and maximize those creating benefits for the Organization.

The **principal risks** identified in our operations and businesses are:

- **Strategic**
Risks affecting or created by strategic decisions that are critical for business growth and performance.
- **Financial**
Risks creating exposure in the Organization's financial transactions, especially the risk that cash flows and returns on financial transactions are not maximized.
- **Operational**
The risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events (strikes, material shortages, climate events, etc.).
- **Compliance**
The risk of failing to comply with applicable laws and regulations, negatively affecting the Company's operations.

All levels and functions within the Company have established roles and responsibilities for day-to-day risk management, from the Board of Directors to the Executive Board and employees across all areas.

To further enhance our risk management activities, in 2019 we implemented SoftExpert Risk, a software suite that covers all aspects of the risk management process, from initial risk identification, through risk assessment and evaluation to risk mitigation and monitoring.

In November 2019 we held a workshop on risk management with our leadership team.





Business ethics and integrity

Ethics, transparency, compliance and anti-corruption are elements that are integral to our management approach at all levels of the Organization. Our way of doing business reflects our commitment to ethics and integrity.

Code of Business Ethics & Conduct

Our Code of Business Ethics & Conduct, which serves as a guide in our day-to-day interactions and activities, was updated and relaunched in 2020.

The Code expresses our commitment to ethics and integrity and supports transparency and improvement in our workplace and business interactions with all stakeholders.

It outlines the standard of conduct expected of our shareholders, direct and third-party employees, suppliers, customers, business partners and legal representatives, and serves as a source of reference on ethics in personal and business conduct.



For further information, [click here](#) to read our code of ethics.



In 2019 we initiated a review of our Compliance policies and implementation of a secure whistleblower hotline, called the Ethics Hotline—a tool for receiving reports on violations of our Code of Ethics & Business Conduct, internal policies and applicable laws and regulations.

The Ethics Hotline is confidential, impartial and independent and is managed by a specialized team. The identity of whistleblowers is kept anonymous on request.

Through the Ethics Hotline, a user can:

- request guidance on how to act in specific situations
- get answers to questions about and report violations of our Code of Ethics & Business Conduct and other standards and policies
- report any misconduct
- report potential conflicts of interest and any situation that goes against our Values, standards and the Code

Requests for information and reports are processed by an independent firm, sorted by subject and submitted to our Ethics Committee, which then takes appropriate action and/or provides the clarification requested by the relevant user.

Anti-corruption Policy

The Brazilian Anti-corruption Act (Act 12846/2013) establishes that a company can be held liable for the actions of its suppliers, agents and other business partners if they engage in acts of bribery or corruption for the benefit of the company, whether or not the commission of those acts was known to the company.

In line with this legislation, we have an Anti-corruption Policy in place at Cimento Apodi that emphasizes our zero-tolerance approach to corruption, bribery and kickbacks, whether involving public or private entities.

Our Ethics Hotline is available through the following channels:



Website

www.canalconfidencial.com.br/cimentoapodi



Phone

0800-882-0603



Corporate social **responsibility**

Our Corporate Social Responsibility (CSR) Policy is based on six pillars that serve as a compass for our management approach and ethical and transparent relations with stakeholders. The six pillars are:

- Doing business ethically and transparently, in compliance with applicable laws and regulations.
- Respecting labor rights, valuing diversity and providing equal opportunity.
- Building a safe and healthy workplace culture (under the slogans: “safe behavior” and “leading by example”).
- Building engagement and partnerships with our communities to contribute to local development.
- Acting as a partner that supports our customers’ success by offering unique, innovative solutions that contribute to sustainable development.
- Monitoring performance on issues related to sustainable development and engaging regularly with stakeholders.



Alignment with our shareholders

In June 2019 we received a visit from TITAN Group's global CSR Director, Maria Alexiou, to share experience and align Cimento Apodi with Titan policies.

Maria Alexiou, who has traveled the world to learn about different experiences in sustainability, discussed the CSR programs at Cimento Apodi, especially in the municipality of Quixere (CE). *"Engaging with*

the community, with families, supporting education and new business development, all of this creates opportunities for a better life," she said.

She highlighted our Women Entrepreneurs program, which provides training and supports local businesses producing high-quality sweets.

"It isn't about philanthropy, but about sustainable business," she added.

Maria Alexiou noted that the sustainability and social responsibility agenda is an irreversible global trend. *"Investors and banks are all alert to these issues and to companies' production practices, environmental impacts, and relations with communities, employees and other stakeholders,"* she said.

We also organized benchmarking visits to the Environment and Compliance departments at M. Dias Branco, a recognized industry leader both for its business results and for its ethical values and approach to social and environmental issues.

In August 2019 we received a visit from the Dias Branco family at our cement plant in Quixere (CE), during the launch of our new Environmental Education Center. Regina Dias Branco, vice president for Management and Development at M. Dias Branco, commended the initiative's ludic approach and noted the importance of the center for children in surrounding communities.



[Click here](#) to watch a video about the visit.



**How we create value –
our material topics**



How we create value for the business and society

Business model - Laying the foundations for human development

Our Vision: **Inspire people to build a better world.**

Our Mission: **Deliver the best experience in our industry, with innovation and sustainability.**

Our Values: **Safety, People, Excellence, Respect, Customers, Sustainability and Innovation.**

Capitals

Financial

- R\$ 738,500 million in fixed assets.
- R\$ 30,967 million in working capital.
- Strong international shareholders.

Manufactured

- 02 cement plants, 09 distribution centers and 03 ready-mix plants.
- 01 limestone quarry with 04 pits.
- 02 complete concrete laboratories, one fixed and one mobile.
- Special cement production.

Intellectual

- 15% + productivity improvement from deploying artificial intelligence at the grinding plant.
- TITAN and APODI engineering staff - Innovation and industry 4.0
- Collaborations with local universities: biomass energy.

Human

- 95.1% of employees hired from local communities
- 20.3% of management positions held by women.
- More than 700 direct and indirect employees.

Social and Relationship

- 3,606 customers.
- 7 social programs in surrounding communities.
- 2,400 active suppliers.
- Leadership on the Vale do Jaguaribe Sustainability Committee.
- Support for the Ceará 2050 Platform.
- Membership and partnership with organizations such as: AECIPP, SNIC, ABCP, ABESC.

Natural

- 25% of energy requirement from clean and renewable sources. We are the only cement company in Latin America to use innovative waste heat recovery technology.
- 474,284 m³ of water withdrawal.
- 1.3 million metric tons of limestone and clay.
- 20,300 t of alternative fuels.
- 233,031 t of alternative raw materials from other industries.



Value Created for Society in 2019 (million)

Total payroll and benefits expense
R\$ 47.6

Added value
R\$ 232.3

Net value added
R\$ 185.4

Payments to governments
R\$ 115.4

Suppliers
R\$ 43.3
(including 79.9 % for local suppliers)

Strategy

Sustainable profitability

Operational excellence

Customer centricity

People

Innovation and digital

Sustainability

Business Risks

Strategic

Operational

Compliance

Financial



Value proposition



A CULTURE GENUINELY FOCUSED ON CUSTOMER SATISFACTION

- ♦ Service levels suited to customer needs.
- ♦ Flexible and intimate customer service.
- ♦ A portfolio of differentiated products and services and technical consulting support.
- ♦ Versatility.
- ♦ A total of 9,000 construction workers to be trained by 2021.
- ♦ Product certification.
- ♦ Business Development Program (BDP).



PRODUCTS AND SERVICES RECOGNIZED FOR QUALITY

- ♦ Differentiated, high-performance products.
- ♦ Highly efficient clinker and cement operations.
- ♦ High quality brands certified to ABNT and ABCP standards.
- ♦ Special products for major construction projects.



A HIGHLY TRAINED TEAM THAT IS ENGAGED AROUND AND PREPARED FOR THE CHALLENGES OF TECHNOLOGICAL DISRUPTION IN THE CONSTRUCTION INDUSTRY

- ♦ A harmonious organizational climate.
- ♦ Continuous training and development.
- ♦ Committed leaders.
- ♦ A commitment to the health and safety of direct and third-party employees.
- ♦ Personal development policies and efforts to identify and retain talent.



STRONG BRANDS, STRONG SHAREHOLDERS

- ♦ A strengthened regional identity.
- ♦ A history steeped in tradition.
- ♦ High creditworthiness supported by high standards of corporate governance.
- ♦ Financial strength.
- ♦ A strong reputation.



INNOVATION AS A VALUE LEVER AND SUSTAINABILITY AS A CROSSCUTTING THEME IN MANAGING OUR OPERATIONS AND THE BUSINESS

- ♦ A regional leader for sustainability and technology.
- ♦ Sustainability across all activities and business processes.
- ♦ An innovation-supportive organizational culture.
- ♦ Sound risk management, with a healthy appetite for risk in all areas of the Organization.
- ♦ Collaboration with universities in innovation programs.
- ♦ Investments in innovation, quality and projects focused on sustainability.
- ♦ Energy self-sufficiency achieved through waste heat recovery technology and wind and solar power projects.
- ♦ Co-processing of waste/byproducts.
- ♦ Suppliers aligned with our business and beliefs.



Materiality assessment

Our materiality assessment is a crucial step in strategy-building as it aligns our practices with stakeholder expectations to ensure we achieve sustainability and deliver shared value from both the Company's and society's perspective.

This is our first materiality assessment to build a materiality matrix. The exercise began in the first half of 2019, with significant leadership involvement in two workshops to develop a shortlist of material issues. This step was conducted by our leadership team with support from the CEO. In September 2019, with support from Combustech—a firm specializing in engineering and sustainability—we conducted a review of the shortlisted material issues. The review included internal and external analyses comprising the following steps.

1. Identification of material issues

We identified material issues and megatrends in our industry based on an analysis of approximately 10 national and international documents:

Internal

- ♦ Shortlist of material issues from the perspective of our leadership team.
- ♦ Stakeholder map.
- ♦ Media clipping.
- ♦ Strategic Risk Map.
- ♦ Company strategy.
- ♦ Other internal documents, including policies and procedures.

External

- ♦ Publications about megatrends from: The International Energy Agency, the World Economic Forum, the Brazilian Cement Technology Roadmaps to 2030 and 2050 (a report developed by the Brazilian Portland Cement Association and the National Cement Industry Union, with support from the International Energy Agency) and other industry documents.
- ♦ Industry benchmarking.

2. Stakeholder identification and prioritization

A complete list of stakeholders was developed through internal meetings and interviews with different stakeholders. The stakeholder list was then prioritized by Senior Management using the framework outlined in AA1000SES.



3. Engagement

3.1 Interviews

To gain insight into stakeholder perceptions of material ESG (Environmental, Social and Governance) issues, we held structured in-person or telephone interviews with external and internal stakeholders, and conducted an online survey of employees and customers.

More than 100 stakeholders provided inputs, including: customers, employees, shareholders, lenders, suppliers, communities, regulators, governments, universities and research institutions, trade associations, the media/press, trade unions, think tanks and non-government organizations.

The interviews focused on each stakeholder's subject-matter insight into current issues that are a high priority for the Company and/or sustainability issues that are material to stakeholders. The majority of interviews were with representatives from stakeholder groups and members of Senior Management, including the chairman of the Board of Directors, the CEO, vice presidents, directors and other leadership.

3.2. Supplementary reviews

We also conducted a supplementary internal review (media, business risks and Company strategy) to assess our long-term objectives and goals, risks and opportunities.

4. Prioritization of material issues

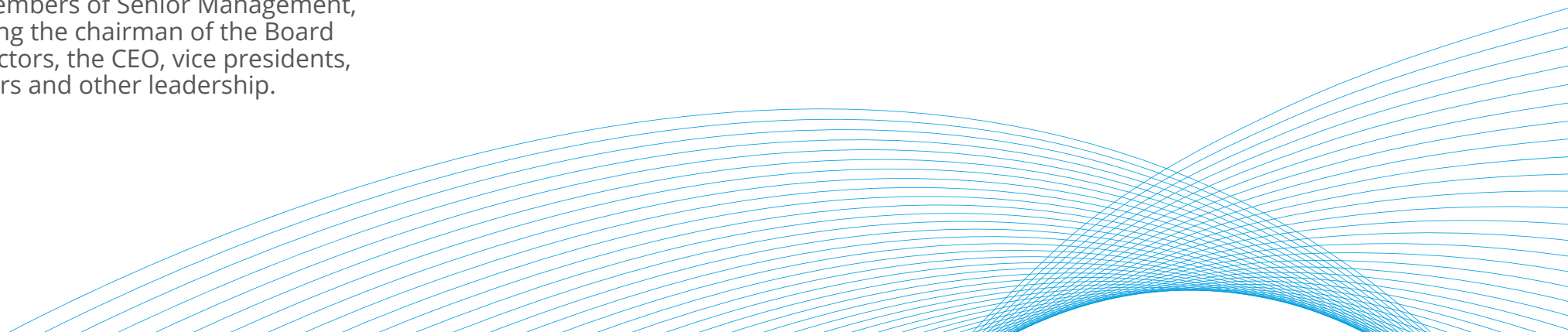
Issues were prioritized based on a statistical assessment of the results from previous steps.

We defined three levels of importance: priority, high relevance and medium relevance.

5. Validation

The last step in the process involved validation of the materiality matrix by the leadership team. We also defined the internal and external boundaries for each material issue.

Overall, we analyzed more than 40 issues, including factors with a significant organizational impact and megatrends affecting the Organization. These issues were organized into 15 priority issues and 7 high relevance issues, which are listed further below.





Materiality process sequence

1. Identification of material issues

Approximately 10 internal and external documents were reviewed, including the Brazilian Cement Technology Roadmap to 2030 and 2050 (*Mapeamento Tecnológico do Cimento Brasil - Visão 2030 e 2050*), to identify megatrends and material issues in our industry.

2. Stakeholder identification and prioritization

- ♦ Identification.
- ♦ Characterization.
- ♦ Prioritization.

3. Engagement: 3.1 Interviews

Internal

- ♦ Interviews with Senior Management.
- ♦ An online employee survey.

External

- ♦ Interviews with external stakeholders.
- ♦ An online survey to elicit customer perceptions about our sustainability performance.

3. Engagement: 3.2 Supplementary reviews

Internal

- ♦ Long-term objectives and goals.
- ♦ Strategic and emerging risks.
- ♦ Other issues: strategies, corporate policies, impact validation, benchmarking and formal commitments.

External

- ♦ Media review.

4. Prioritization of material issues

- ♦ Score.
- ♦ Matrix configuration.
- ♦ Internal and external boundaries.

5. Validation

- ♦ Sustainability, Communications & Corporate Social Responsibility, Human Resources and Investor Relations Departments.
- ♦ Executive Committee and CEO.
- ♦ Board of Directors.

More than 100 stakeholders provided input into the materiality exercise, including internal and external stakeholders.



1. Identification of material issues

		Strategy						Business Risks				Environmental, Social, Governance and Economic (EnSGEc) impacts on the value chain			
	Capitals	Sustainable profitability	Operational excellence	Customer centricity	People	Innovation and digital transformation	Sustainability	Strategic	Operational	Compliance	Financial	Suppliers	Cimento Apodi	Customers	Society
Governance															
Compliance, Governance, Transparency and Regulatory Risks	5				◆		◆			◆		G	G	G	G
Stakeholder Engagement and Relations	5			◆	◆		◆	◆	◆			EnS	EnS	EnS	EnS
Corporate Social Responsibility	5	◆		◆	◆		◆	◆	◆	◆		EnSGEc	EnS	EnS	EnS
Economic															
Customer Satisfaction	5			◆				◆						Ec	
Innovation	3					◆			◆		◆	EnSEc	EnSEc	EnEc	SEc
Responsible Value Chain	1	◆	◆				◆	◆	◆	◆	◆	EnSGEc			SEc
Value Creation for the Business and Society	1	◆					◆	◆	◆	◆	◆	EnSGEc	EnSGEc	EnSGEc	EnSGEc
Operational Excellence	2		◆				◆		◆			EnEc	EnEc	EnEc	
Transportation and Logistics	2			◆					◆		◆	EnSEc		EnSEc	

Capitals

- | | | |
|-----------------|-----------------|----------------------------|
| 1. Financial | 3. Intellectual | 5. Social and relationship |
| 2. Manufactured | 4. Human | 6. Natural |

Impacts

- | | |
|-------------------|---------------|
| En. Environmental | G. Governance |
| S. Social | Ec. Economic |

EnSGEc. Positive impact - maximize opportunities
EnSGEc. Negative impact - reduce risks



1. Identification of material issues (continued)

	Capitals	Strategy						Business Risks				Environmental, Social, Governance and Economic (EnSGEc) impacts on the value chain			
		Sustainable profitability	Operational excellence	Customer centricity	People	Innovation and digital transformation	Sustainability	Strategic	Operational	Compliance	Financial	Suppliers	Cimento Apodi	Customers	Society
Social															
Career Development/Retention	4				◆		◆	◆	◆				SEc		SEc
Occupational Health and Safety	4				◆		◆		◆	◆		EnSEc	EnSEc		
Human Rights	4				◆		◆		◆	◆		EnS			EnS
Local Development	5				◆		◆								EnSEc
Work-Life Balance	4				◆		◆		◆				S		S
Environmental															
Alternative Fuels and Raw Materials	6		◆				◆		◆			S EnGEc	S EnGEc		EnSEc
CO2 Emissions and Climate Change	6		◆					◆	◆		◆	EnEc			EnEc
Water Resource Management	6		◆				◆		◆				En S	En S	EnS
Air Quality	6		◆		◆		◆		◆				En		EnS
Energy Efficiency	6		◆				◆		◆				AnEc En	AnEc En	
Physical Impacts from Climate Change	1		◆				◆		◆			EnEc	EnEc	EnEc	EnEc
Circular Economy	6		◆				◆		◆			EnEc	EnEc	EnEc	EnEc
Biodiversity & Ecosystem Services	6		◆				◆						En	En	





Stakeholder engagement

We believe it is imperative that we maintain open dialog and positive relations with our stakeholders. We accordingly work to develop a relationship based on mutual cooperation and participation in building trust.

With this imperative in mind, we have structured channels for communications and dialog with employees and other stakeholders.

In the second half of 2019, we revisited our stakeholder map as part of our materiality assessment process. This exercise generated 14 stakeholder groups.



Customers



Governments



Employees



Universities and research institutions



Shareholders



Trade associations



Lenders



Media/press



Suppliers



Labor unions



Communities



Think tanks



Regulators



Non-government organizations

We identified our stakeholders based on the five attributes outlined in AA1000SES:

- ♦ **Dependency:** groups or individuals who are directly or indirectly dependent on the organization's activities, products or services and associated performance, or on whom the organization is dependent in order to operate.
- ♦ **Responsibility:** groups or individuals to whom the organization has, or in the future may have, legal, commercial, operational or ethical/moral responsibilities.
- ♦ **Tension:** groups or individuals who need immediate attention from the organization with regard to financial, wider economic, social or environmental issues.
- ♦ **Influence:** groups or individuals who can have an impact on the organization's or a stakeholder's. strategic or operational decision-making.
- ♦ **Diverse perspectives:** groups or individuals whose different views can lead to a new understanding of the situation and the identification of opportunities for action that may not otherwise occur.

We covered a wide variety of topics in our stakeholder surveys, including:

- ♦ material issues
- ♦ the Sustainable Development Goals that are most relevant to Apodi and our stakeholders
- ♦ the perceptions of our external stakeholders, leadership team, customers and employees about our sustainability performance
- ♦ the priority sustainability issues to be incorporated in our strategy for the next 10 years



Below we list the key topics and concerns raised.





Stakeholder group	Description	Main departments responsible for engagement	Engagement methods and channels	Frequency	Key engagement initiatives in 2019	Trend and results from initiatives
Customers 	<ul style="list-style-type: none"> Construction contractors and workers; End consumers; Construction companies Government highway departments (DER, DNIT, etc.); Petrobras; Home improvement centers; Engineers; Designers; Architects; Hardware store clerks; Flooring contractors; Concrete laboratories; and Consultants. 	<ul style="list-style-type: none"> Commercial; Customer Relationship Management (CRM); Production and Technical Support Department; Marketing; Product Committee; Quality; and Logistics. 	<ul style="list-style-type: none"> Facebook; Instagram; LinkedIn; Customer Relationship Management (CRM); Customer Service; and Technical Support. 	Continuous.	<ul style="list-style-type: none"> IBRACON (Brazilian Concrete Institute) Conference. Concrete Pavement Course. Participation in the "Cities" event, with a lecture titled "Economical and Sustainable Solutions for Urban Roads and Municipal Governments". A lecture on types of cement at the Ceara state metropolitan transportation company (METROFOR). Training for 5,722 construction workers through our "Knowledge Masters" program. Participation in the "Construction Awards" (annual). Media Plan Presentation (annual). Experience Day - Box seating for customers to enjoy Ceara and Fortaleza matches in the state soccer competition. Business Development Program (BDP) for customers. InovaConstruir-CE. 	Positive





Stakeholder group	Description	Main departments responsible for engagement	Engagement methods and channels	Frequency	Key engagement initiatives in 2019	Trend and results from initiatives
Employees 	<ul style="list-style-type: none"> ♦ Leadership team; and ♦ Employees. 	<ul style="list-style-type: none"> ♦ Human Resources; and ♦ Leadership team. 	<ul style="list-style-type: none"> ♦ Toolbox Talks; ♦ Cimento Apodi's internal communication network; ♦ Ombudsman channel; ♦ Motivational and safety campaigns; ♦ Regular meetings; ♦ Sustainability Report; ♦ Website: www.cimentoapodi.com.br; ♦ Workplace (corporate social network); ♦ LinkedIn; ♦ Internal training; ♦ End-of-year celebrations; and ♦ Language courses. 	Continuous.	<ul style="list-style-type: none"> ♦ Leader Development Program (LDP). ♦ ESL courses for employees. ♦ Engagement survey. ♦ Employee birthday celebrations. ♦ Implemented Workplace, a social network for enterprises, for 100% of employees. ♦ Installed corporate TVs at all sites. 	Positive
Shareholders 	<ul style="list-style-type: none"> ♦ Independent audit; ♦ Internal audit; ♦ Board of Directors and Executive Board. 	<ul style="list-style-type: none"> ♦ Executive Board. 	<ul style="list-style-type: none"> ♦ Board Meetings; and ♦ Earnings Meetings. 	Quarterly; Monthly.	<ul style="list-style-type: none"> ♦ Earnings presentations and investment validation. 	Positive



Stakeholder group	Description	Main departments responsible for engagement	Engagement methods and channels	Frequency	Key engagement initiatives in 2019	Trend and results from initiatives
Lenders 	<ul style="list-style-type: none"> ♦ Lending agents. 	<ul style="list-style-type: none"> ♦ Financial; ♦ Accounting; ♦ Tax; and ♦ Leadership team. 	<ul style="list-style-type: none"> ♦ Financial reporting; and ♦ Financial reporting meetings. 	Annual.	<ul style="list-style-type: none"> ♦ Reporting on earnings and investment projections. 	Positive
Suppliers 	<ul style="list-style-type: none"> ♦ Port contractors; ♦ Biomass suppliers; ♦ Suppliers of raw materials, fuels and packaging; ♦ Transportation suppliers (FTL and short-sea shipping); ♦ Truck drivers; ♦ Third-party companies; ♦ Logistics companies; ♦ Consulting and training companies; ♦ Fly ash and slag suppliers; ♦ Communications system suppliers; and ♦ Equipment suppliers. 	<ul style="list-style-type: none"> ♦ Procurement; ♦ Logistics; ♦ Marketing; ♦ HR; ♦ Leadership team; ♦ Administrative; and ♦ Industrial. 	<ul style="list-style-type: none"> ♦ Bancodoc; ♦ Events; ♦ Meetings; and ♦ Training. 	Continuous; Annual; and Daily.	<ul style="list-style-type: none"> ♦ Celebration of Truck Drivers' Day. 	Neutral






Stakeholder group	Description	Main departments responsible for engagement	Engagement methods and channels	Frequency	Key engagement initiatives in 2019	Trend and results from initiatives
Communities 	<ul style="list-style-type: none"> ♦ Communities surrounding the Quixere and Pecem plants, and communities near concrete batching plants and distribution centers. 	<ul style="list-style-type: none"> ♦ Sustainability. 	<ul style="list-style-type: none"> ♦ Business-Community Committee; ♦ Social programs; ♦ WhatsApp; ♦ Facebook; and ♦ Association of Pecem Industrial and Port Complex Companies (AECIPP). 	Quarterly; and Continuous.	<ul style="list-style-type: none"> ♦ Two Business-Community Committee meetings; ♦ Funding for three programs: music, <i>capoeira</i> and community association support; ♦ Collective community initiatives involving the Company, communities and the municipal government. 	Positive
Regulators 	<ul style="list-style-type: none"> ♦ Public Prosecution Service; ♦ National Land Transportation Agency (ANTT); ♦ Federal Highway Police (PRF); ♦ State Environment Department (SEMACE); ♦ Tax authorities; ♦ Labor authorities; ♦ Labor unions; ♦ Army; ♦ Federal Police; ♦ Municipal environmental agencies; ♦ Military Police; and ♦ Fire Department. 	<ul style="list-style-type: none"> ♦ Environment; ♦ Health & Safety; ♦ Accounting; ♦ Human Resources; and ♦ Leadership team. 	<ul style="list-style-type: none"> ♦ Environmental reports; and ♦ Meetings. 	Annual; Quarterly; and Continuous.	<ul style="list-style-type: none"> ♦ Annual environmental status reports on our operations. 	Positive



Stakeholder group	Description	Main departments responsible for engagement	Engagement methods and channels	Frequency	Key engagement initiatives in 2019	Trend and results from initiatives
Governments 	<ul style="list-style-type: none"> ♦ State Government of Ceara; ♦ Municipal Government of Quixere (CE); ♦ Municipal governments in the Vale do Jaguaribe region; and ♦ Municipal governments of Caucaia (CE) and Eusebio (CE). 	<ul style="list-style-type: none"> ♦ Leadership team; ♦ Sustainability; and ♦ Institutional Relations. 	<ul style="list-style-type: none"> ♦ Association of Pecem Industrial and Port Complex Companies (AECIPP); and ♦ Vale do Jaguaribe Sustainability Committee. 	Monthly; and Quarterly.	<ul style="list-style-type: none"> ♦ 1st Social Responsibility Workshop; ♦ Meetings; and ♦ 4 Vale do Jaguaribe Sustainability Committee meetings. 	Positive
Universities and Research Institutions 	<ul style="list-style-type: none"> ♦ Brazilian Association for Standardization (ABNT); ♦ Research institutes; and ♦ Higher education institutions. 	<ul style="list-style-type: none"> ♦ Sustainability; ♦ Institutional Relations; ♦ Leadership team; and ♦ Industrial. 	<ul style="list-style-type: none"> ♦ Collaborative projects; and ♦ Internship and apprenticeship programs. 	Quarterly; and Continuous.	<ul style="list-style-type: none"> ♦ Artificial Intelligence Project—PECEM; ♦ Social Academy Project; ♦ Technical visits; and ♦ Industrial Process Operator Course. 	Positive
Trade Associations 	<ul style="list-style-type: none"> ♦ National and regional organizations linked to or active in the construction industry. 	<ul style="list-style-type: none"> ♦ Marketing; ♦ Sustainability; ♦ Institutional Relations; ♦ Leadership team; ♦ Industrial; and ♦ Quality. 	<ul style="list-style-type: none"> ♦ Sectoral meetings. 	Annual; and Continuous.	<ul style="list-style-type: none"> ♦ Brazilian Concrete Institute Convention (IBRACON); ♦ National Cement Industry Union (SNIC) Committees; and ♦ Brazilian Portland Cement Association (ABCP). 	Positive
Media/Press 	<ul style="list-style-type: none"> ♦ Press. 	<ul style="list-style-type: none"> ♦ Marketing. 	<ul style="list-style-type: none"> ♦ Media Clipping; ♦ Media outreach; and ♦ Fact sheets. 	Daily.	<ul style="list-style-type: none"> ♦ Spontaneous brand placement in the media, representing an audience of 183,109,325 people and R\$ 23,413,224.79 worth of advertising. 	Positive







Stakeholder group	Description	Main departments responsible for engagement	Engagement methods and channels	Frequency	Key engagement initiatives in 2019	Trend and results from initiatives
Labor Unions 	<ul style="list-style-type: none">♦ Ceara State Construction and Furniture Industry Workers' Federation; and♦ Cement, lime and gypsum industry workers' unions.	<ul style="list-style-type: none">♦ Human Resources.	<ul style="list-style-type: none">♦ Union negotiation meetings;♦ Email.	Annual; and Continuous.		Positive
Think Tanks 	<ul style="list-style-type: none">♦ Construction professionals.	<ul style="list-style-type: none">♦ Marketing; and Leadership Team.	<ul style="list-style-type: none">♦ Sales Consultants; and♦ Marketing.	Continuous.	<ul style="list-style-type: none">♦ "Eu uso" Campaign.♦ "Masters of Knowledge" (construction workers)	Positive
Non-Government Organizations 	<ul style="list-style-type: none">♦ NGO "Unidos para o Progresso".	<ul style="list-style-type: none">♦ Sustainability.	<ul style="list-style-type: none">♦ Vale do Jaguaribe Sustainability Committee; and♦ Volunteering Program.	Quarterly; and Annual.	<ul style="list-style-type: none">♦ Capacity Building for Cimento Apodi Volunteers.	Positive



Material issues, scope and boundaries

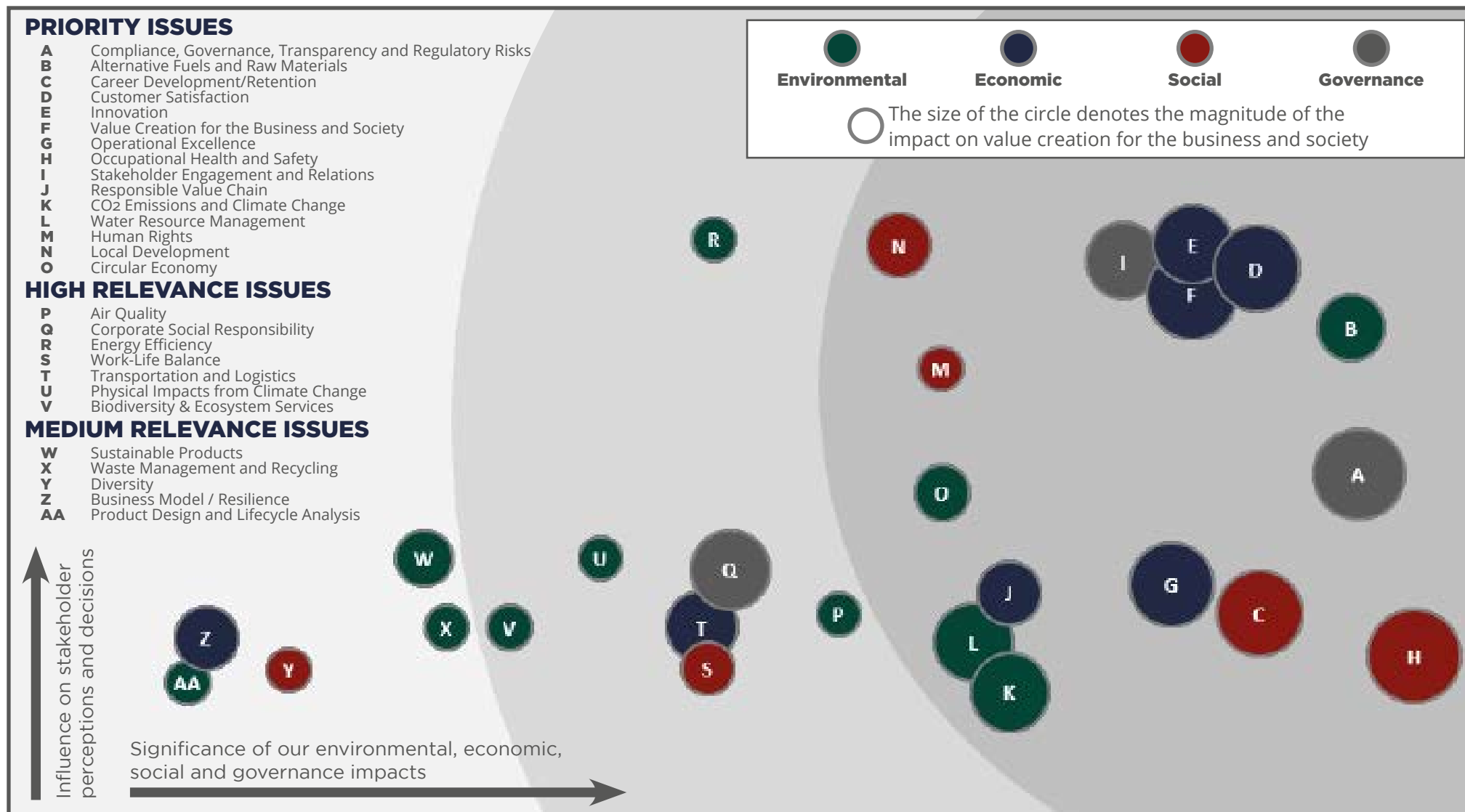
The material issues identified in our materiality assessment were categorized into four pillars: **Governance, Economic, Social and Environmental.**

 Governance	 Economic	 Social	 Environmental
Compliance, Governance, Transparency and Regulatory Risks	Customer Satisfaction	Career Development/ Retention	Alternative Fuels and Raw Materials
Stakeholder Engagement and Relations	Innovation	Occupational Health and Safety	CO2 Emissions and Climate Change
Corporate Social Responsibility	Responsible Value Chain	Human Rights	Water Resource Management
	Value Creation for the Business and Society	Local Development	Circular Economy
	Operational Excellence	Work-Life Balance	Air Quality
	Transportation and Logistics		Energy Efficiency
			Physical Impacts from Climate Change
			Biodiversity & Ecosystem Services









Cimento Apodi Materiality Matrix - GRI [102-47], IIRC e SASB










The primary outcome from our materiality assessment process was a set of “material issues” that are strategic for sustainability at Cimento Apodi. These material issues have been mapped in a materiality matrix. The vertical axis represents the level of influence on stakeholder perceptions and decisions, while the horizontal axis represents the significance of the Company’s environmental, economic and social impacts.












Material Topics	Detailed Description
Priority issues	
 A. Compliance, Governance, Transparency and Regulatory Risks	<p>Reporting practices, policies and procedures, and enhanced awareness-raising processes and initiatives for stakeholders, the market and broader society, covering the following:</p> <ul style="list-style-type: none"> ◆ Compliance with laws and regulations and investigation of suspected violations. ◆ Transparent and efficient decision-making processes. ◆ Employee transparency and integrity at all levels of the Organization. ◆ Management of business, operational, regulatory, social, environmental and corruption risks. ◆ Support for a free market without monopolies, antitrust issues or price-fixing. ◆ Crisis management to minimize damages to our assets, operations and results.
 B. Alternative Fuels and Raw Materials	<p>Use of alternative fuels and raw materials and reuse of byproducts based on circular economy principles, ensuring production and consumption patterns are sustainable.</p>
 C. Career Development/Retention	<p>Policies, practices and mechanisms for:</p> <ul style="list-style-type: none"> ◆ Attracting and retaining top talent. ◆ Training and engaging the team. ◆ Addressing diversity and nondiscrimination.
 D. Customer Satisfaction	<p>Strategies, initiatives and mechanisms to:</p> <ul style="list-style-type: none"> ◆ Provide a better customer experience and better customer service. ◆ Build long-term relations with customers. ◆ Deliver high levels of product quality. ◆ Identify potential risks or negative aspects related to products and services. ◆ Protect data privacy. ◆ Embed innovation and sustainability in the construction industry.
 E. Innovation	<p>Development of new strategies, products, services, processes and mechanisms to reduce negative impacts, maximize positive impacts, boost revenues, reduce costs and achieve competitive advantage.</p>
 F. Value Creation for the Business and Society	<p>This includes:</p> <ul style="list-style-type: none"> ◆ All value we create and distribute to stakeholders and society. ◆ All strategies set to maximize profitability and contribute to operational stability and the longevity of the business.



Material Topics		Detailed Description
Priority issues		
 G. Operational Excellence	Environmental and production policies and initiatives that establish adequate operational standards and promote best practices in our operations and production process.	
 H. Occupational Health and Safety	Practices and initiatives that protect, to the greatest extent possible, the health, safety and physical and mental integrity of employees, contractors and suppliers.	
 I. Stakeholder Engagement and Relations	Strategies, initiatives and mechanisms to establish and maintain open communications with stakeholders in order to understand their expectations and either develop or participate in win-win initiatives.	
 J. Responsible Value Chain	Strategies to maximize business opportunities in the value chain, and mitigate supplier-related social, environmental and legal risks that could threaten business continuity.	
 K. CO2 Emissions and Climate Change	Strategies, projects and initiatives to: <ul style="list-style-type: none">♦ Measure, monitor and reduce our industrial and agricultural carbon footprint.♦ Mitigate the risks and/or adapt to the consequences of climate change.♦ Seize opportunities to enter markets that value products produced through low-CO2 production processes.	
 L. Water Resource Management	Practices, projects and mechanisms to: <ul style="list-style-type: none">♦ Utilize water resources more efficiently.♦ Identify and manage water-related risks in our operations and activities.	
 M. Human Rights	Strategies and initiatives to promote and protect the human rights of stakeholders across our supply chain.	
 N. Local Development	Strategies, initiatives and practices that include: <ul style="list-style-type: none">♦ Managing the risks and impacts from our activities on the communities where we operate.♦ Supporting local development.♦ Developing and maintaining positive relations with surrounding communities.	
 O. Circular Economy	Strategies, initiatives and mechanisms to: <ul style="list-style-type: none">♦ Reduce waste throughout the product lifecycle.♦ Identify and implement opportunities to replace raw materials.♦ Recycle byproducts.♦ Recycle construction and demolition waste.	










Material Topics	Detailed Description
High Relevance Issues	
 P. Air Quality	Procedures and practices for measuring, monitoring, mitigating, reducing, controlling and reporting on non-GHG (Greenhouse Gas) emissions from our operations.
 Q. Corporate Social Responsibility	A management approach underpinned by ethical and transparent relations with all stakeholders.
 R. Energy Efficiency	Strategies, projects and investments to: <ul style="list-style-type: none"> ♦ Reduce risks related to energy supply and production. ♦ Encourage and achieve increased energy efficiency in our operations and across the value chain. ♦ Conduct research on and develop and/or implement alternative energy options.
 S. Work-Life Balance	Initiatives and organizational practices that support employees in maintaining a healthy work-life balance.
 T. Transportation and Logistics	Strategies, programs and practices for: <ul style="list-style-type: none"> ♦ Efficiently managing transportation and logistics activities. ♦ Mitigating the risks inherent to our operations.
 U. Physical Impacts from Climate Change	Strategies, projects and initiatives for: <ul style="list-style-type: none"> ♦ Adapting and achieving resilience to climate change. ♦ Identifying opportunities related to climate change. ♦ Collaborating with other companies, governments and academia on projects related to climate change.
 V. Biodiversity & Ecosystem Services	Policies, projects and initiatives for identifying, mapping, preventing, mitigating, correcting and offsetting impacts on ecosystems surrounding our operations.











Scope and boundaries








The boundaries of each issue in relation to our value chain are set in the table below. These boundaries indicate whether our reporting covers internal impacts (within our operations) or external impacts (on the activities of our suppliers, customers and/or broader society).

Material Topics		Within Cimento Apodi	Outside Cimento Apodi			GRI Disclosures / Frameworks	Frameworks				
			Suppliers	Customers	Society		1	2	3	4	5
Priority issues											
	A. Compliance, Governance, Transparency and Regulatory Risks	◆	◆	◆	◆	102-16; 102-17; 205-1; 205-2; 205-3; 206-1; 307-1; 415-1; 419-1.		◆	◆	◆	◆
	B. Alternative Fuels and Raw Materials	◆	◆		◆	GCCA Charter, Titan KPIs.	◆			◆	
	C. Career Development/ Retention	◆				202-1; 202-2; 401-1; 401-2; 401-3; 404-1; 404-2; 404-3.	◆		◆		
	D. Customer Satisfaction	◆		◆							
	E. Innovation	◆	◆	◆	◆						◆
	F. Value Creation for the Business and Society	◆	◆	◆	◆	201-1.			◆		
	G. Operational Excellence	◆		◆			◆	◆		◆	



Material Topics		Within Cimento Apodi	Outside Cimento Apodi			GRI Disclosures / Frameworks	Frameworks				
			Suppliers	Customers	Society		1	2	3	4	5
Priority issues											
	H. Occupational Health and Safety	◆	◆			403-1; 403-2; 403-3; 403-4.			◆	◆	◆
	I. Stakeholder Engagement and Relations	◆	◆	◆	◆		◆			◆	
	J. Responsible Value Chain	◆	◆	◆	◆	204-1; 308-1; 308-2, 406-1; 407-1; 408-1; 409-1; 410-1; 411-1; 412-1; 412-2; 412-3; 414-1; 414-2.	◆		◆		
	K. CO2 Emissions and Climate Change	◆	◆	◆	◆	201-1.	◆		◆	◆	◆
	L. Water Resource Management	◆			◆	303-1; 303-2; 303-3; 306-1; 306-5.	◆		◆	◆	◆
	M. Human Rights	◆	◆		◆		◆		◆		
	N. Local Development	◆	◆	◆	◆	413-1; 413-2.			◆		
	O. Circular Economy	◆	◆		◆					◆	



Material Topics		Within Cimento Apodi	Outside Cimento Apodi			GRI Disclosures / Frameworks	Frameworks				
			Suppliers	Customers	Society		1	2	3	4	5
High Relevance Issues											
	P. Air Quality	◆			◆	305-7.	◆			◆	◆
	Q. Corporate Social Responsibility	◆	◆	◆	◆					◆	
	R. Energy Efficiency	◆					◆			◆	◆
	S. Work-Life Balance	◆			◆						◆
	T. Transportation and Logistics	◆	◆	◆		308-1; 308-2, 403-1; 403-2; 403-3; 403-4.					
	U. Physical Impacts from Climate Change	◆			◆	201-2.					
	V. Biodiversity & Ecosystem Services	◆			◆	304-1; 304-2; 304-3; 304-4	◆			◆	◆

Frameworks:

- 1) Titan environmental and social KPIs. For further information, [click here](#).
- 2) UNGC TenP, COP
- 3) UNCTAD Guidance, Selected core indicator
- 4) GCCA Charter
- 5) SASB 2014 Construction Materials Sector



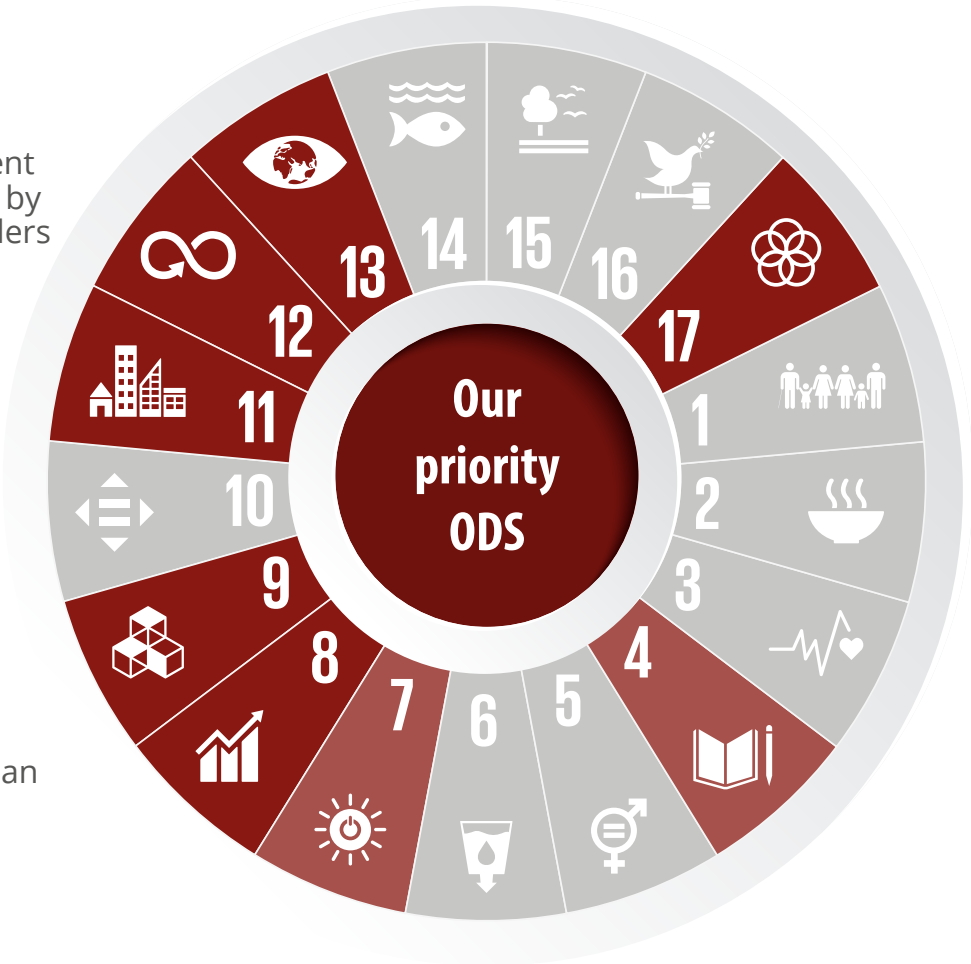
Sustainable Development Goals (SDGs)

On September 25, 2015, the 193 UN Member States adopted a set of goals to end poverty, protect the planet, and improve the lives and prospects of everyone, as part of a new development agenda.

The 17 Sustainable Development Goals (SDGs), and their 169 component targets, provide guidance over a horizon from 2015 to 2030 on actions by governments, the private sector, civil society, individuals and stakeholders to achieve progress in a joint effort.



As a private company responding to this global call to action to create an environment that provides greater opportunities and better living standards for all, we have conducted an exercise to prioritize those Sustainable Development Goals which we, given our business model, can impact directly and support most effectively.



KEY: The different shades in the wheel denote the level of priority assigned to each sustainable development goal by our stakeholders and senior management team.

Dark red: Priority SDGs.

Light red: Material SDGs.

Gray: SDGs not prioritized by the business or by society.



Material issues and linkage to the SDGs



Governance																	
Compliance, Governance, Transparency and Regulatory Risks								◆								◆	◆
Stakeholder Engagement and Relations				◆					◆		◆						◆
Corporate Social Responsibility								◆	◆		◆						
Economic																	
Customer Satisfaction								◆	◆		◆						
Innovation							◆	◆	◆		◆	◆					◆
Responsible Value Chain								◆	◆		◆						
Value Creation for the Business and Society								◆	◆		◆						◆
Operational Excellence							◆	◆				◆					
Transportation and Logistics			◆					◆					◆				

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How our initiatives support the Sustainable Development Goals:



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- Products that are essential for development. Contribution to better quality of life and access to housing.
- Circular economy: byproduct recycling and development of lower-carbon products. Use of fly ash and from other companies at the Pecem (CE) complex in our production process.
- Investment in research and development to supply increasingly efficient products and services to our customers.
- Training for construction workers to increasingly optimize their use of our products.
- Process and systems improvements to reduce waste and inefficiencies in the construction value chain.



7.3

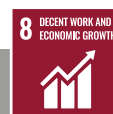
- Use of clean energy and innovative technologies at our plants. We are the only company in Latin America to use Waste Heat Recovery (WHR) technology.
- Studies and assessments on the use of wind, solar and other alternative energy sources.
- Our plant in Quixere (CE) operates to high levels of energy efficiency.



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- Public-private partnerships to develop sustainable solutions for using Refuse Derived Fuel (RDF) in our cement kilns. Supporting the development of solutions for municipal landfills. Exercising leadership on the Vale do Jaguaribe Sustainability Committee and actively participating in the Ceara Platform 2050.



8.5

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- Building and updating our employees' technical and behavioral skills.
- Local hiring and capacity building, including in agriculture, in support of professional development.
- Providing healthy and safe workplaces for our employees.
- Improving health and safety conditions in transportation and logistics.
- Encouraging suppliers to adopt practices aligned with our businesses' human rights guidelines.
- Development and strengthening of local supply chains. (e.g. our Women Entrepreneurs program).



13.2

We supported the development and publication of the “Cement Technology Roadmap” (*Roadmap Tecnológico do Cimento*) by the Brazilian Portland Cement Association (ABCP) and the National Cement Industry Union (SNIC), in collaboration with the International Energy Agency (IEA), the World Bank’s IFC and WBCSD.

To reduce greenhouse gas emissions, the roadmap provides recommendations such as:

- Using alternative fuels and raw materials in cement production.
- Using alternative, low-carbon materials to produce cement, including limestone as a filler, slag, fly ash and pozzolans.
- Optimizing the energy and thermal efficiency of cement plants.

Click here for further information about the Cement Technology Roadmap.

- Developing initiatives aligned with the Cement Technology Roadmap to 2030 and 2050.
- Optimizing transportation and logistics and prioritizing transportation modes generating the least carbon emissions.



17.6

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- Building or strengthening partnerships with a focus on engagement and development and/or expansion.



12.2

- Cement production with fly ash, slag, limestone as filler and pozzolans. Use of byproducts from other companies at the Pecém (CE) complex in our production processes.
- Use of alternative raw materials in our production process. Investment in research and innovation to expand the use of alternative raw materials.
- Contributing to increased recycling of construction and demolition waste.
- Monitoring biodiversity and ecosystems surrounding our operations. Developing action plans and managing improvements.
- Sustainable consumption and use of water resources.
- Employee training on the importance of preserving biodiversity and using water resources sustainably.



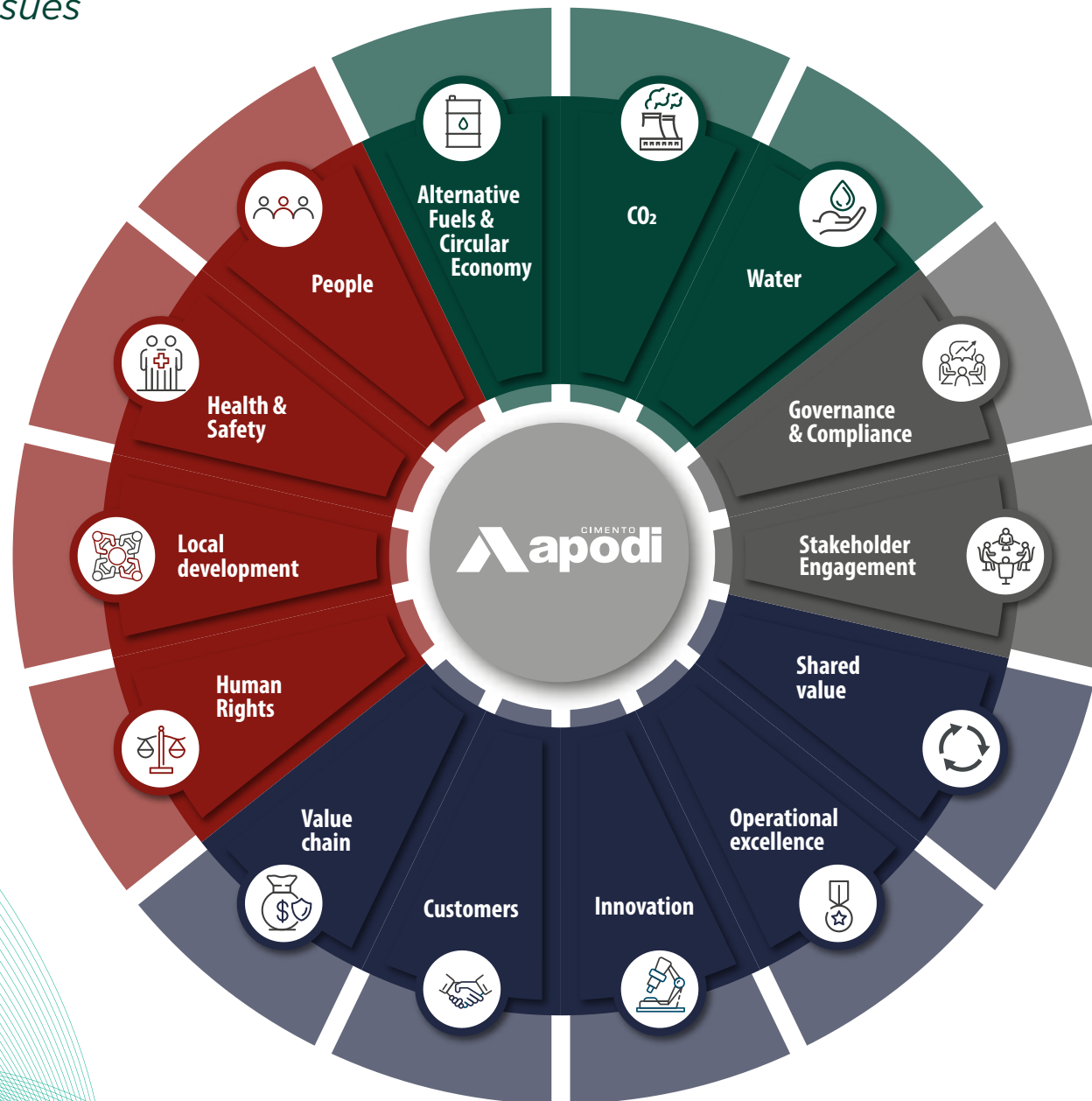
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- Education is one of the core pillars of our social initiatives, with a particular focus on local professional training and development. We work in partnership with communities to secure our social license to operate.



Priority Material Issues

Key performance indicators (KPIs) have been defined for each priority issue in order to track our progress on that issue and the relevant SDGs.



Click on the issue icons in the wheel to view the relevant synergies with the SDGs

Click on the synergies to close them



KPIs

ENVIRONMENTAL KPIs		
TITAN CODE	DESCRIPTION	Business
EP06	Externally recycled waste materials	All
EP07	Water consumption	All
EP16	Thermal energy consumption (total)	All
EP17	Electrical energy consumption (total)	All
EP18	Gross direct CO ₂ emissions (total)	Cement
EP19	Net direct CO ₂ emissions (total)	Cement
EP20	Indirect CO ₂ emissions (total)	Cement
EP21	% Alternative fuel substitution rate	Cement
EP22	% Biomass in fuel mix	Cement
EP23	Clinker to cement ratio	Cement
EP24	Thermal energy consumption (total)	Cement
EP25	Alternative fuels consumption (total)	Cement
EP26	Electrical energy consumption (total)	Cement
EP27	Raw materials consumed (total)	Cement
EP28	% Alternative raw materials use	Cement
EP29	Water consumption (total)	Cement
EP31	Dust emissions (total)	Cement
EP32	NOx emissions (total)	Cement
EP33	SOx emissions (total)	Cement
EP36	% Alternative fuel substitution rate	All
EP37	% Biomass in fuel mix	All
EP 40	Environmental expenditures	All

SOCIAL KPIs		
TITAN CODE	DESCRIPTION	Business
SP-01	Employee fatalities	All
SP-02	Employee fatality rate	All
SP-03	Contractors fatalities	All
SP-05	Employee Lost Time Injuries (LTIs)	All
SP-06	Employee Lost Time Injuries Frequency Rate (LTIFR)	All
SP-07	Employee lost working days	All
SP-08	Employee Lost Time Injuries Severity Rate	All
SP-09	Contractors Lost Time Injuries (LTIs)	Cement
SP-10	Contractors Lost Time Injuries Frequency Rate (LTIFR)	Cement
SP-15	Employee turnover (%)	All
SP-16	Employees left	All
SP-17	Employee new hires (%)	All
SP-18	Employee new hires	All
SP-19	New hires by age group	All
SP-43	Interns	All
SP-45	% local spend	All

OTHER MANAGEMENT KPIs	
ISSUE	DESCRIPTION
Governance and Compliance	Number of reports received via our Ethics Hotline and Percentage of employees trained on Compliance policies
Stakeholder engagement	Number of complaints and Number of people benefited by social projects
Innovation	Artificial Intelligence: % Energy Savings and % overall financial and non-financial benefits
Human rights	% Critical suppliers that have undergone human rights assessments



Stakeholder engagement



Some of our stakeholders, such as employees and communities, are covered in dedicated chapters of this Sustainability Report.

Other stakeholders are covered in this chapter, including:

- Customers/business partners
- Suppliers/procurement
- Trade associations
- Government agencies
- Labor unions
- Collaborations with universities and research institutions

Customers/business partners

We work continuously to build closer relations with our customers and business partners, and implement initiatives and continuous improvement to drive customer satisfaction.

Our relationships with customers are based on trust, mutual respect, transparency and honesty, supporting long-term cooperation and partnership.

In 2019 we implemented a range of improvements to our commercial and customer management processes. This will be followed in 2020 by implementation of additional CRM (Customer Relationship Management) modules for monitoring and management.

“Masters of Knowledge” Program

In addition to training and capacity building for construction workers, this initiative provides distributors—whether large, medium or small— with a tool to build loyalty to the Apodi brand among end consumers.

In December 2019 a total of 106 construction professionals completed a Building Techniques course as part of the program. The goal of the course was to support development in the Jaguaribe Valley region by providing training to professionals in the construction industry, including bricklayers, foremen, and hardware store clerks. The course was administered by Instituto Centec, with support from Cimento Apodi.





In the following pages we highlight some of our initiatives in 2019 to strengthen relations with customers and business partners:

Technical support

Our Products and Technical Support team provides laboratory support—from both fixed and mobile labs—to North and Northeast customers in any location.

The mobile laboratory is a large van equipped with state-of-the-art equipment. Each laboratory is capable of performing a wide range of tests, including aggregate characterization (particle size), concrete and mortar mix design, compressive strength and flexural tensile strength, and testing of concrete surfaces and blocks.

Laboratory services are available to both existing customers and potential customers.

Our sales team assesses customers' needs and then requests support from the Products and Technical Support team. Where applicable, we conduct a visit to the project site, followed by a comprehensive assessment. As deliverables from the assessment, we issue a certificate and a report describing opportunities for improvement.

Technical support helps our customers and business partners to:

- improve productivity
- become more competitive
- minimize waste
- enhance their environmental performance
- increase profitability

[click here](#) to watch a video of our participation at the 61st IBRACON Concrete Conference 2019





9.4, 9.5



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17.6, 17.7

Business Development Program (BDP)

In 2019 we partnered with the Brazilian Small Business Support Service (SEBRAE) and the Brazilian Portland Cement Association (ABCP) to launch the first edition of our **Business Development Program (BDP)** for small business customers/partners.

The program is targeted to sole proprietors and micro and small-sized businesses. The first edition of the program helped 8 businesses to develop 102 new products. The program also provided important support for process optimization to minimize losses of raw materials and finished products and increase product quality.

The following companies participated in the program: Telhas Fortaleza, Beton

Tecnologia, Propostas Pre-Moldados, AP2 Concreto, Techblocos, MG Andrade Pre-Moldados, M3 Pre-Moldados and Artec Pre-Moldados. As part of the BDP program, participating companies received advice on deploying innovative technologies and processes, achieving conformity to technical standards, increasing productivity, and driving continuous improvement in profitability.

During the eight-month program, participants visited our plant in Sao Goncalo do Amarante (CE) and attended technical workshops designed for each individual participant. Advisory sessions addressed two separate fronts: business development and technology development.

More than just serving our customers, we help their businesses thrive. Our BDP program is an important step in our efforts to support industry development in Ceara. We are going a step further, working with business partners to cascade benefits across our entire value chain.

Distribution logistics

An extensive distribution network enables us to serve our customers efficiently using a combination of road, rail and short-sea shipping.

We have worked to improve our logistics management processes to further enhance employee safety, operating efficiency and cost reduction.

The following were some of our key initiatives in 2019:

▪ Dedicated trucks

We have continued to optimize our logistics operations across the different modes of transportation. In road transportation, for example, around 70% of our material transfers between plants, 80% of shipments to Distribution Centers in the Northeast and over 60% of bulk sales deliveries are handled by dedicated trucks.

This has reduced exposure to external factors and made our supply chain more robust.



▪ Logistics Monitoring Center

In September 2019 we implemented a Logistics Monitoring Center at our plant in Pecem (CE) that provides information on order status after invoicing and tracks shipments via satellite.

The Center currently covers our bulk sales operations and in 2020 will be extended to all operations at Cimento Apodi.

▪ New Distribution Centers in Belem (PA) and Manaus (AM)

In response to continued sales growth in the North of Brazil in recent years, in 2019 we opened new Distribution Centers (DCs) in Belem (PA) and Manaus (AM).

The new DCs have more than double the storage capacity of the previous facilities, are better located and provide a better work environment for customers, employees and contractors.



Customer Satisfaction Survey

We conducted our second Customer Satisfaction Survey from August 14 to September 30, 2019, polling 168 customers in a quantitative survey on the following aspects:

- Quality
- Customer service center
- Deliveries
- Technical support
- Commercial service
- Financial service

Some of the highlights from the survey include:

Product quality

99% of respondents rated the quality of our products as **“excellent” (63%) or “good” (36%)**, up from 98% in the previous survey.

Schedule performance

80% of respondents gave us **“excellent” (51%) or “good” (29%)** ratings for on-time delivery (CIF) or loading and order fulfillment (FOB), an improvement from 78% in the previous survey.

Customer service

94% rated the service they received from consultants/sales representatives as **“excellent” (75%) or “good” (19%)**, the same percentage as in the previous survey.

The survey also revealed areas for improvement in our relations with customers and business partners and/or in our services.





Suppliers/procurement

At Apodi, suppliers and business partners are selected and onboarded in a transparent selection process based on pre-established, technical and objective criteria that aim to maximize performance and results in the supply chain, reduce procurement costs and strengthen our competitiveness.

In managing our suppliers, we work to develop **enduring partnerships**. In 2019 we initiated a review of our supplier management processes, reformulated our Procurement Policy and standardized our procurement items as part of a continuous improvement process.

In our day-to-day procurement, we preferably source from local suppliers. We currently have a vendor list with approximately 9,000 suppliers, including 2,248 active suppliers.

In supplier **monitoring and assessment**, all suppliers with which we currently or may in the future do business are assessed for compliance risks. This includes suppliers of both products and services.

We have also developed policies and procedures that require suppliers to be screened before doing business with us.

Prior to doing business or concluding a contract with a new supplier, we conduct a due diligence process to ensure that the supplier's representations about its business are accurate.

As part of the due diligence process, we assess the profiles of third-party companies doing business with the supplier, any history of corruption, the supplier's reputation and anti-corruption practices, and other integrity criteria.

This process also supports the **protection of human rights** within our area of influence. Cimento Apodi has adopted a zero-tolerance approach to degrading, unhealthy, forced or child labor in our relations with suppliers.

In addition to supplier assessments, we also provide opportunities for **learning and interaction** to all suppliers, including those that for any reason no longer do business with us, as part of a continuous capacity building and feedback process. This allows companies no longer doing business with us to become active suppliers again.

By providing **capacity building support to local suppliers**, we level the playing field relative to non-local suppliers. Currently, 55% of our procurement is locally sourced.



Trade associations

We are active members of the main trade associations representing the sectors where we operate.

In Ceara, the most important trade association of which we are a member is the Ceara State Construction Industry Union (SINDUSCON-CE). We are also members of its parent body, the Ceara State Industry Federation (FIEC), in which we are especially active in its social and education arms—SESI and SENAI. SINDUSCON-CE, which represents companies in the construction industry in the state, is the second largest in Brazil.

We are also members of the Association of Pecem Industrial and Port Complex Companies (AECIPP). AECIPP is a not-for-profit organization that represents companies within the Pecem Industrial and Port Complex (CIPP) with a mission of strengthening business development in the region through permanent advocacy of the legitimate interests of members.

In addition, we are represented at national trade associations such as the National Cement Industry Union (SNIC), the Brazilian Portland Cement Association (ABCP), the Brazilian Association of Brokerage Firms (ABESC), the Brazilian Association of Building Materials Manufacturers (ABRAMAT) and the Brazilian Construction Industry Chamber (CBIC).

Cimento Apodi also engages and interacts with construction cooperatives at the regional and national level.





Government agencies

In our business activities and operations, we at all times comply with national and local legislation and the requirements of authorities at all levels of government.

All business transactions at Cimento Apodi are conducted within the law and in accordance with ethical principles, including those set out in the Brazilian Anti-corruption Act (Act 12846, August 1, 2013) and other legislation on anti-bribery, money laundering and terrorist financing.

Whenever necessary, we report any wrongdoing in writing to government agencies and oversight bodies—at the municipal, state and federal level—on the advice of our Legal Department and in a strictly professional manner.

Our support for the Ceara 2050 Platform

Consistent with our purpose of helping to transform our world, we support the Ceara 2050 Platform through a Regional Mobilization Hub led by the Vale do Jaguaribe Sustainability Committee.

The **Strategic Long-Term Development Platform—Ceara 2050** (www.ceara2050.ce.gov.br)—is an initiative of the state government of Ceara that aims to lay out strategies to accelerate economic growth and improve access to essential services in the state.

Ceara 2050 is designing solutions for the sustainable economic and social development of the state, including medium and long-term initiatives involving local actors in a participatory process that is focused on creating wealth and development in the region.

The platform uses a collaborative strategic planning approach built on the principles of dialog, participatory planning, freedom of opinion and public accountability. This helps to create a sense of belonging. Platform participants include manufacturing companies, education, research and technology institutions, and government agencies. Communities have

been mobilized around the platform across the state, including on social media. Around 120 municipalities are covered by the program.

The goal for Ceara 2050 is that by the end of the process, both the project portfolio and the governance structure will be ready for implementation as soon as they are presented to society.

In 2020, another wave of initiatives will begin as part of the platform, in an institutionalized and structured manner. The success of the platform rests on a set of key levers:

- Engagement with society.
- Delivering quick-win results that support engagement and a sense of belonging.
- The multi-stakeholder, cross-cutting nature of the platform initiatives.
- Institutionality.
- Continuous dialog.
- Transparency.

The Ceara 2050 Platform and the activities of the Vale do Jaguaribe Sustainability Committee are aligned with SDG (Sustainable Development Goal) 17 – Partnerships for the Goals.



Labor unions

We have progressed in our approach to managing labor issues as part of an effort for organization-wide improvement in People Management.

We respect freedom of association and recognize unions as legal representatives of our employees. We work to strengthen relations and encourage dialog in solving labor and union disputes.

Collaborations with universities and research institutions

Collaboration with academia (universities and research institutions) crucially supports value creation in our business and operations.

Two significant initiatives that have created differentiators in our operations are a case in point:

- Artificial intelligence in grinding processes
- “Core program: building shared value—biomass and native crops”



9.4, 9.5



12.2



17.6, 17.7



Artificial intelligence in grinding processes

About the initiative

Our most significant innovation initiative in 2019 was a project in collaboration with the Federal University of Ceara (UFC) that created an **Autonomous Management Platform for Vertical Roller Mills**.

Through this collaboration with UFC, we have implemented a new system based on Industry 4.0 technology and **artificial intelligence in our cement grinding processes**. The technology, which is being deployed for the first time in cement mill applications, is designed to increase mill productivity as well as reduce costs in the process.

The solution has been in use at our Pecem (CE) plant since September 2019.

Artificial intelligence concepts have been used to modulate 50 operational and quality variables in real time to improve mill operation. Data is collected via an

operational and quality data management system (PI OSI) and a proprietary software system developed by UFC. The collected data feeds a model that can predict mill behavior and optimize the process.

The software system uses artificial intelligence to monitor the cement grinding stage of the process.

The story of the initiative

The project began after a year of joint research involving employees at Cimento Apodi, members of Titan Group Engineering & Technology (GET) and students and professors at the Federal University of Ceara (UFC).

The project team included Apodi employees Thiago Giampietro and Stefanos Anagnostou, members of the Titan GET team and UFC students Rafael Costa, Hismael Costa and Cintia Lima, from the Software Engineering program;

Hevilla Sousa and Rilmar Farias, from the Production Engineering program; and Alex Frederico from the Computer Science program, under the supervision of professors Dmontier Aragao from the Production Engineering department and Alexandre Arruda, from the Computer Science department.

Apodi donated equipment to the campus to develop the project, and paid for travel expenses and all equipment required for production. We also contributed our industry expertise.

Benefits and results

In addition to increasing productivity, the project has enhanced our knowledge about artificial intelligence and strengthened our institutional relationship with UFC, while developing a system that can be replicated across plants and is the backbone of an artificial intelligence system being implemented for the kiln line and for cross-plant integration.



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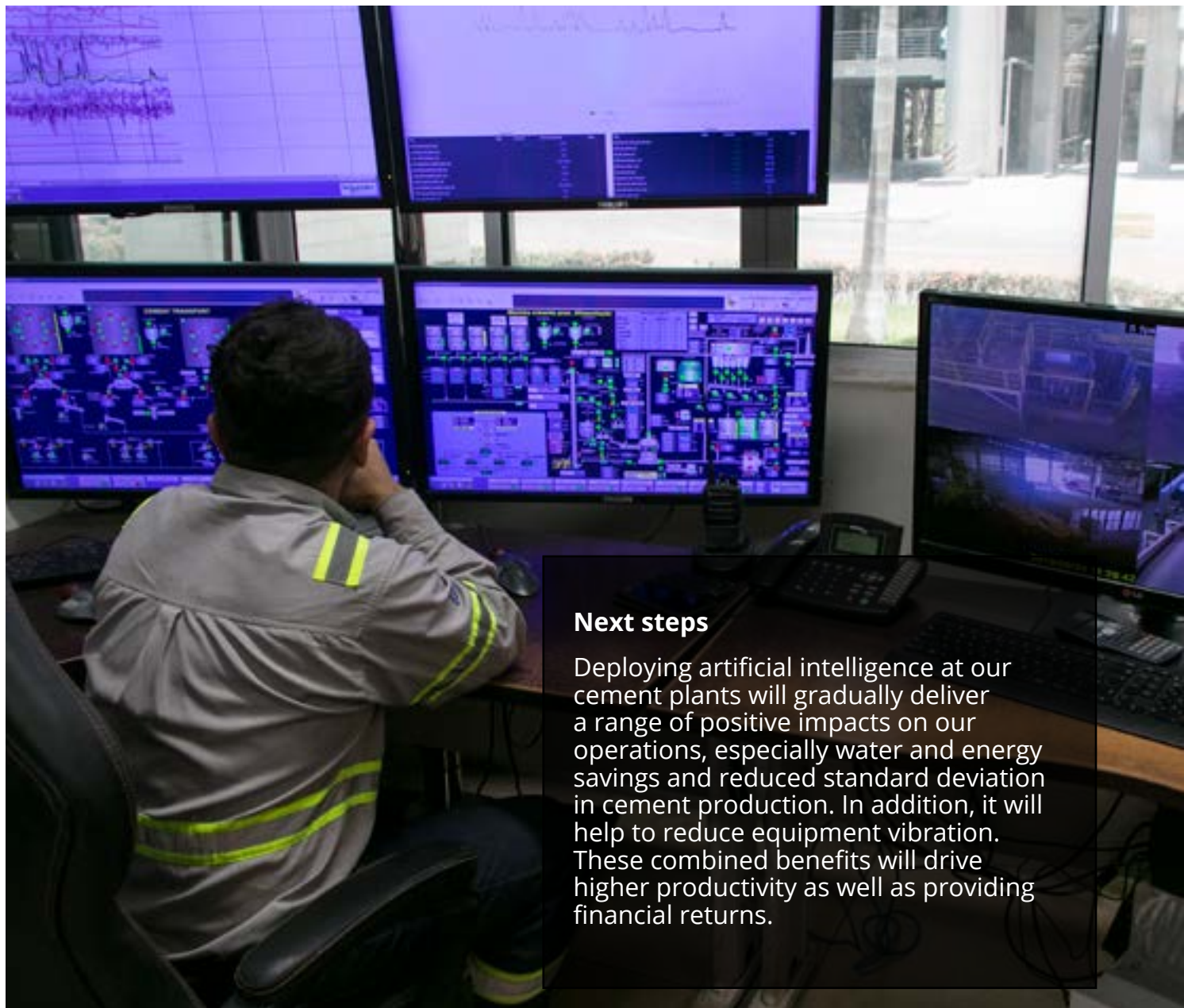
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Key benefits/results to date (2019):

- The average system utilization rate in 2019 was 67%.
- Before implementing the artificial intelligence system, average plant output was 78 metric tons per hour. With the system, plant output has increased to 100 metric tons per hour.
- More than 15% productivity improvement.
- Automated management has also provided other important benefits, such as:
 - » Water, energy and fuel savings.
 - » Reduced emissions.
 - » Higher productivity.
 - » Greater process stability.
- Average electricity savings of 7% for CP II cement and 10% for CP IV cement.
- Average productivity improvement of 12% for CP II cement and 15% for CP IV cement.
- Petroleum coke consumption reduced by approximately 20%.



Next steps

Deploying artificial intelligence at our cement plants will gradually deliver a range of positive impacts on our operations, especially water and energy savings and reduced standard deviation in cement production. In addition, it will help to reduce equipment vibration. These combined benefits will drive higher productivity as well as providing financial returns.



7.3



13.2



Core program: building shared value - biomass and native crops

Since 2017 we have worked across different fronts in community outreach, supporting both existing initiatives and new programs that promote improved quality of life, income opportunities, education and stronger community associations.

These initiatives have gradually become better structured with the creation of regional and local committees such as the **Vale do Jaguaribe Sustainability Committee** and the **Business-Community Committee**, which have strengthened interaction with more than 40 institutions in the Vale do Jaguaribe area.

We are now working to define a core social cause to guide our efforts in a more systematic and long-term program.

In early 2019, three fronts were being explored to arrive at a program that could meet a number of criteria, including: shared value creation, the existence of mature public policy around the relevant cause, and technical and political aspects facilitating program execution.

The three identified causes were: housing, solid waste and biomass.

After a series of assessments in partnership with the Federal University of Ceara (UFC), the Center for Industrial Technology and Quality of Ceara (NUTEC) and Memorial Carnauba, **biomass and native crops** was selected as the cause best meeting the criteria listed above.

We conducted a technical feasibility study on using waste from carnauba production as an alternative fuel in our operations, while also providing support to growers of the crop, a symbol of the state of Ceara that is even found on its coat of arms.

Concurrently, a study in partnership with the Federal Institute for Education, Science and Technology of Ceara (IFCE) explored the potential use of "jurema preta" (*Mimosa hostilis*) as biomass. This species is highly resistant to semi-arid conditions and, being abundant in the region, it is not highly valued. However, it has high calorific value and studies suggest it can be put into more valuable use.

The goal of the project is to create value for both industry and growers by reconciling the need to reduce CO₂ emissions in industrial processes with growers' need to sustain a livelihood that is increasingly threatened by growing urbanization, the movement of youth away from farming, and a lack of investments and innovative techniques and tools to attract farm labor.

In 2020, pilot projects will be carried out and we are currently in discussions with the state government toward including the project in government innovation and development programs, in order to expand the reach of project outcomes. We initially plan to work with 200 growers that are members of Memorial Carnauba, positively impacting more than 1,000 people who derive their livelihood from growing carnauba.



Health & safety



In our day-to-day operations, health and safety are among our highest concerns.

We recognize **life is our most important asset** and strive to protect the health and integrity of our employees, customers and suppliers across our processes.

In line with Sustainable Development Goal 3—Good Health and Well-Being, we believe that health and safety management should primarily focus on prevention.

OHS as a strategy

We ensure effective health and safety management by applying practices recommended by organizations that are recognized internationally as authorities in the field. Under our Strategic Plan 2019–2020, **we restructured our occupational health and safety (OHS) function** into a corporate department in 2019, and raised awareness among stakeholders about the importance of OHS in making our operations at Apodi increasingly sustainable.

We have dedicated OHS teams at each of our operations, who use a systematic, planned approach to disseminate a health and safety culture at all levels of the Organization and across the value chain.

In 2019 we reached a significant milestone of **624 days with no lost time injuries** at our Quixere (CE) plant.





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OHS management tools

As part of the restructuring of our OHS function, we implemented and/or strengthened practices recommended by recognized authorities in health and safety.

These practices include:



Safety Rules:



Tasks should only be initiated after assessing risks and completing a PRA form



Always use appropriate PPE and CPE



Never remove guards from machinery/equipment when in operation



Be sure to tape off and sign the area where you are working and to keep it organized



Never enter restricted areas without permission



Critical tasks can only be performed with a permit to work



Only perform tasks after ensuring that any hazardous energy has been locked out/tagged out



Only operate machinery/equipment or drive vehicles if you are trained and authorized to do so



Never report to work under the influence of alcohol/ drugs or carrying a firearm or knife

Occupational Safety Committee

This Committee is responsible for Occupational Health & Safety governance using a management model in which our leadership team is highly engaged and encourages engagement across all levels of the Organization.

Leadership Safety Inspections (LSI)

On a weekly basis, our leadership team inspects our plant-floor operations to identify opportunities for improvement across behaviors, machinery and facilities as well as to interact more closely with and train employees on health and safety practices.

Task Risk Assessments (TRA)

Weekly risk assessments promote positive interaction between line managers and their teams, helping to strengthen our health and safety culture. TRAs are an opportunity for line managers to identify opportunities, realign behaviors and increasingly improve process safety for employees.



Health and Safety Meetings (HSM)

Health and Safety Meeting (HSM) participation rates have consistently increased since implementation. HSMs are formal employee meetings in which line managers systematically address topics related to occupational health and safety and the environment. The higher HSM participation rates are thanks to our efforts to disseminate a prevention culture.

In addition to department-specific HSMs, on a weekly basis operations managers address a specific health and safety topic during a General HSM. These HSMs are held at the beginning of the work shift and are widely attended by employees.



One-off OHS initiatives

We also organized a number of one-off initiatives during the year to strengthen our health and safety culture in our operations. The most significant initiatives included:

Workplace exercise

This initiative aims to improve employee quality of life through workplace exercise (stretching). Exercise sessions are administered in partnership with SESI, a local leader in occupational health and safety. A total of 312 sessions were held in 2019, for a total of 135 hours of exercise.

SIPAT&MA

Internal Accident Prevention and Environment Week (SIPAT&MA), a regulatory requirement in Brazil, is organized as a prevention campaign at Apodi.

A number of different activities are organized throughout the week, including: workshops, interactive games, parody competitions, exhibition booths, massage sessions, dental treatment, field inspections, health circuits, donations of food and personal care products, etc.

In 2019 approximately 95% of employees participated across the different SIPAT&MA activities.

Vaccination campaign

We conduct vaccination campaigns every year. The 2019 campaign focused on influenza (H1N1) and tetanus vaccination.

A total of 347 employees at our operations in Ceara were vaccinated as part of the campaign in 2019, or 71% of our total workforce of 491 employees as of 12/31/2019.

Preventive health campaigns

To improve well-being in the workplace, we provide massage therapy sessions for employees during health and safety events. We also regularly measure blood pressure and blood glucose to map out employee's health status.

Thematic campaigns

We ran several thematic campaigns in 2019, including:

Yellow May

The 2019 edition of our annual Yellow May road safety campaign featured activities such as workshops, safety blitzes, thematic activities and games using wheelchairs. At some of our operations, traffic authorities such as the Department of Transportation and the Federal Road Police participated in the initiative.

July 27 – National Occupational Accident Prevention Day

On July 27th, our daily Health & Safety Meetings at all sites were themed around National Occupational Accident Prevention Day. Employees were encouraged to discuss the impacts that occupational injuries can have on them, their families, the Company and society.

Pink October

Our Pink October breast cancer prevention campaign organized a number of awareness raising activities including workshops, games (quizzes, ring toss games), massage therapy, “For Her” spaces (beauty care days) and discussions on prevention.

Blue November

Our prostate cancer awareness campaign, Blue November, featured initiatives such as workshops, games (quizzes, button soccer, ring toss games), massage therapy, and haircut sessions.



DIPAT

Members of our Internal Accident Prevention Committee (CIPA) periodically organize Occupational Accident Prevention Week (SIPAT) events for employees, led by the committee chair.

Housekeeping

We have a program in place that encourages employees to actively participate in keeping our facilities organized and promoting a healthy and safe workplace environment. On-the-job activities demonstrate how a clean and organized environment can help to reduce workplace injuries.

Statutory training

To keep our employees up to date on occupational health and safety requirements, we provide statutory training and organize regional forums and events on occupational health & safety.

Emergency Responders

Each of our sites has a responder team that has been trained on fire response, rescuing victims, providing first aid, and capturing poisonous animals.



Health & safety assessment

In December 2019 our employees were invited to answer an **Industrial Worker Health & Safety Assessment (ASSTI)** survey in a collaboration with SESI-CE.

Approximately 80% of our employees answered the survey across our headquarters and industrial sites (cement plants and ready-mix plants). Employees at our distribution centers were not included.

The survey elicited employees' perspectives on health and safety and informed action plans for improvement.

Key findings:

- Approximately 99% of respondents rated the use of personal protective equipment (PPE) as important or very important.
- Around 92% rated our workplace environment as safe or very safe.





People management



People management guidelines

Apodi's human resources management policies and guidelines ensure that we continually develop our employees and create and maintain a motivating and healthy workplace environment, improving our ability to attract, retain and develop talents.

We consider it essential that we provide a harmonious work environment in which employees take pleasure in their tasks, receive recognition and have job security.

We believe that our objectives as a Company can only be achieved by a motivated, engaged and committed workforce.

Workplace conditions at Apodi conform to the principles of the Universal Declaration of Human Rights, the Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, and the United Nations (UN) Global Compact, of which we are a signatory. We also ensure compliance with Brazilian labor regulations and best practices in governance and integrity.





General policies

At Apodi we ensure that our general policies on human resources aspects such as recruiting and selection, performance review, compensation, benefits, careers and training are aligned with industry best practices.

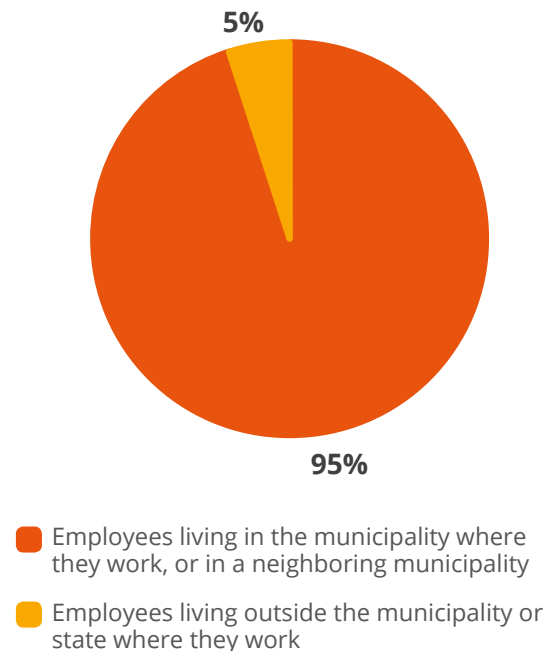
In 2019, as part of our continuous efforts to support the development of our employees, we prepared and launched a Talent Management Policy containing guidance on attracting, retaining and training talents. In addition, we have programs in place that support employees in improving performance and business results.

In the year, we also:

- revised our **Classification and Compensation Plan**
- reviewed our **Career Pathway** guidance
- improved our **Performance Review and Feedback** processes
- overhauled our **Succession Plan**
- conducted our first **Engagement Survey**

As of December 31, 2019 we had 491 direct employees.

Approximately 95% of employees at the cement plant in Quixere (CE) and grinding plant in Pecem (CE) live within a 50 km radius of their workplace. This has a positive impact on employee commuting and quality of life by shortening the time taken to commute to and from the workplace.



[Click here](#) to view our careers webpage.



Local capacity building in our early operations

Training and skills building have been an important part of our business model since the start of our operations.

When we first built our cement plants and other facilities, there were no professionals in nearby areas with the training required for positions in our cement production processes.

Apodi provided training to farmers, growers and other residents in the region to equip them with the skills needed to fill positions at our facilities, in a win-win process that benefited the Company and local communities.



4.3, 4.3.1, 4.4, 4.5



5.1



8.2, 8.5



10.3

Leadership development

Promoting continuous professional development is among the fundamental principles of our approach to human resources management.

And this is especially true when it comes to our leadership team. We believe our leaders need to be prepared to navigate adversity, and that only by investing in training will we further drive business results.

In the first half of 2019 we launched a new edition of our Leader Development Program (LDP). The initiative is now in its third consecutive year and covers supervisors, coordinators, managers and directors. In 2019 we provided a total of 3,500 hours of LDP training, covering 100% of our leadership team.

Training subjects included conflict management, providing feedback and communications. One of the areas of focus is equipping leaders to develop their teams.

Within a new vision, we have identified strategic leadership competencies that align with and reinforce our organizational identity.





5.5



8.5



Diversity

At Apodi, diversity is an area in which we seek continuous improvement and evolution.

We are committed to fostering a wholesome, respectful and inclusive work environment in which diverse ideas, perspectives and beliefs are respected.

In a market in which women remain a minority in leadership positions, especially in the heavy-building industry, little by little we are creating space for innovation in leadership and for the inclusion of women in positions typically held by men. And while women have progressively been hired at greater rates to administrative positions, their presence in operational roles in the cement industry has remained taboo.

This, however, is slowly beginning to change. Cristiany Aguiar, who joined Cimento Apodi in 2013, was promoted to shift supervisor at our Pecem plant in 2019.

"Being the only female candidate in the selection process was terrifying in a way, but at the same time I knew that this was a barrier that had to be broken. I wondered how many other women may have wanted to apply for the role but were too afraid to do it.

During the process, I was assessed on my technical and behavioral skills in a very professional manner. At no time was I more or less privileged for being a woman. And while the selection process was gender-agnostic, most other employees seemed not to believe that a woman would pass the selection process, or even be capable of performing the tasks involved...

...I have gradually been able to overcome the many challenges and limitations, including physical limitations...The biggest (or the most noticeable) change I have implemented so far was hiring a woman as a production operator to join the team. At first this was met with much resistance, but gradually the team has learned to accept her and help her deal with physical limitations," says Aguiar.

She now leads a team of 12 men working on alternating shifts, 24 hours a day.

In 2019, we had **20.3% of women in management positions** out of total employees.

This reflects our efforts to build a people management model that provides equal opportunity irrespective of gender, race, sexual orientation or other characteristics, and enables us to put words into practice when it comes to human rights, inclusion and diversity—creating value in the process.



Engagement survey

In 2019 we participated for the first time in the Titan Group **Employee Engagement Survey**. The survey was conducted in partnership with Korn Ferry, an independent consulting firm and a recognized authority in people management practices, which ensured that the survey conformed to internationally accepted practices in relation to data processing and protecting the confidentiality of respondent-provided information.

A significant 87% of employees answered the 57 questions in the survey, in a fully online process over a period of 10 days.

The survey assessed employee engagement and enablement, and elicited employee perceptions on our practices to inform future management initiatives and projects.

The results were communicated to all employees and used as inputs for action plans that will be launched over the next two years, addressing Company priorities.

Workplace – a corporate social network

We are committed to open, transparent, impartial and sound communication with our employees, shareholders, suppliers, customers and other stakeholders, seeking to build long-term relations based on mutual trust.

To improve employee engagement in a world in which the way we communicate and the speed at which information flows are rapidly changing, in 2019 we implemented Workplace, a corporate social network, as a channel for direct communications with employees.

Workplace enables employees to create natural connections, form work groups and share content instantaneously and securely.

Our Workplace network is available to and can be accessed by 100% of our employees.





**Environmental
management**



7.3



12.2



13.2

Environmental management system

Our industrial operations and business activities are managed in a way that reduces environmental impacts. We have a corporate **Environmental Policy** that ensures our practices are guided by the principles of sustainability and environmental responsibility. These principles are embedded in our business model and in our Mission, Vision, Values and Purpose, and are aligned with corporate social responsibility guidance from our shareholders.

As a Company we strive to achieve sustainable development, to contribute to a better world and a healthier environment, and to comply with applicable environmental regulations.

In our operations, we work to mitigate the environmental impacts from our activities. We have adopted a set of **Green Rules** and have procedures on environmental preservation that encourage employees to be proactive and incorporate environmental stewardship in their daily work routines.

We work continually to improve our environmental management practices and implement initiatives to preserve nature and improve quality of life in the areas where we operate.

Apodi maintains an integrated environmental management system that covers all of our business units. Through the system, we periodically monitor our water, energy, effluents, waste, noise and emissions performance to ensure our operations are environmentally compliant and coexist harmoniously with surrounding communities, in accordance with environmental legislation and other applicable laws and regulations.

regras verdes Green Rules

1. Optimize natural resource usage in cement production and marketing;
2. Prevent environmental pollution;
3. Comply with environmental laws and regulations;
4. Keep plant environments organized, tidy and clean;
5. Pursue continual improvement in production equipment and facilities and environmental control;
6. Remediate / rehabilitate impacted areas.



Co-processing

We use co-processing to produce energy by replacing fossil fuels either with waste materials from other industries or with biomass, supporting a circular economy.

Co-processing is an operation combined with the cement production process in which waste is burned and destroyed, producing high-quality clinker. In clinker kilns, large volumes of waste can be disposed of in an operationally and environmentally safe manner, while maintaining cement quality.

Our operations use most of the slag produced at Companhia Siderurgica do Pecem (CSP) and 100% of the fly ash produced by Energias do Brasil - EDP and ENEVA S.A., maximizing resource and energy efficiency. Co-processing helps to preserve nonrenewable natural resources by utilizing energy and/or minerals that would otherwise be disposed of in landfills.

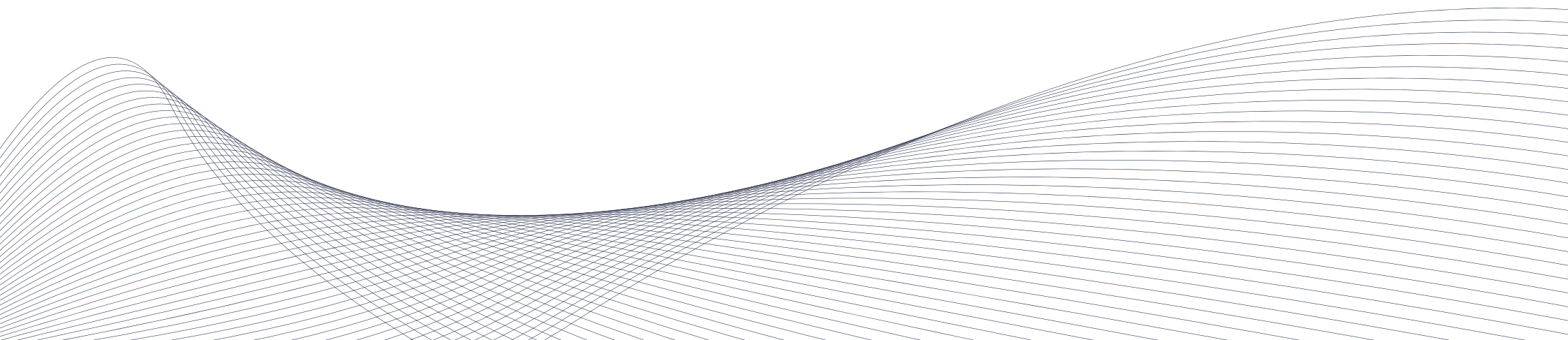
We are also conducting research in collaboration with the Center for Industrial Technology and Quality of Ceara (NUTEC), the Federal University of Ceara (UFC) and Memorial Carnauba to develop solutions for the large-scale use of waste biomass, which can also promote social inclusion for smallholders.

When an oil tanker spilled **crude oil in (or near) Brazilian territorial waters**, contaminating beaches in the Northeast, we worked throughout 2019 to develop solutions to co-process the oil as fuel.

We used 19 metric tons of oil collected from 18 beaches in Ceara. When mixed with other industrial waste, crude oil can be used in replacement of conventional fuels due to its high calorific value. The reclaimed oil was fed to the cement kiln at Quixere (CE). Co-processing releases

no waste materials into the environment and can help to minimize greenhouse gas emissions, especially CO₂, while also reducing the use of fossil fuels and production costs.

Fuel substitution is recommended in the Brazilian Waste Management Policy (Act 12.305/2011) as an environmentally sound solution for waste management. Co-processing provides a wide range of benefits, which include: increasing the useful life of sanitary landfills, reducing health problems caused by improper waste disposal, providing options for waste disposal without generating additional waste, eco-efficiency, optimized use of natural resources and fossil fuels, and reduced greenhouse gas emissions.





11.2, 11.6



12.2



13.2

Waste can be co-processed as a substitute for fuel if it has high calorific value, and as a substitute for raw materials. As additional benefits, co-processing:

- destroys waste materials (environmental liabilities) that would otherwise be left in the environment
- uses waste in substitution of fossil fuels
- uses waste in substitution of raw materials, minimizing quarrying and mining
- reduces local environmental impacts
- allows cement kilns to be used as a tool for environmental management

In our co-processing operations, fuel is fed into the kiln via a precalciner located in the cyclone tower, and waste substitutes for raw materials are added to the limestone pile and then fed to the kiln. As proof that waste materials have been adequately destroyed, Waste Co-processing Certificates (CCRI) are issued and sent to customers.

[Click here](#) to read an article about how our Quixere (CE) plant co-processed the crude oil spilled off the coast of Ceara.





Water management

Water is essential for life and is a natural resource over which there is growing competition. Water is also essential for our operations, which can impact both the quality and availability of water resources.

In line with Titan Group guidelines, in 2019 we conducted a water risk assessment across our operations using the Aqueduct tool of the World Resources Institute (WRI). The assessment generated the following data on the risk of water stress near our operations, as inputs for strategic management of water resources:

UNIT	Cement Plant and Quarries	Grinding Plant in Pecem and Ready Mix Plant in Eusebio
OVERALL RISK	High–Extremely High	High
QUANTITATIVE PHYSICAL RISK	Extremely High	High
QUALITATIVE PHYSICAL RISK	Medium–High	Medium–High
REGULATORY AND REPUTATIONAL RISKS	High	High

[Click here](#) to learn more about the Aqueduct tool.

We are committed to good water stewardship and to assessing, managing and minimizing our impacts on this precious resource (see the following table for information about site-specific water consumption).

UNIT	m ³ of water
QXR	442,926.76
Pecem	34,105.4
Ready-mix plant–Eusebio	16,788
Ready-mix plant–BR116	1,823
Ready-mix plant– Pecem	1,173
Ready-mix plant–Natal	5,700
TOTAL	502,516.16





All of our operations adhere to good practices in water management, which includes reducing water consumption to the extent possible, managing and disposing of water in a way that prevents adverse impacts on ecosystems or on public health, and working toward water-related targets designed according to the local context, potential risks and the relevant operation's current performance.

We use **closed-circuit systems or water recycling/reuse systems** wherever possible in the production process (cooling tower, bearings and mills) and in machinery cooling applications. Water is pumped from deep cased wells and distributed throughout our plants in a closed circuit that limits consumption to the minimum necessary.

As part of this process, we recently implemented a Waste Heat Recovery (WHR) system that uses heat from the clinker production process to generate energy.

In 2019 we collaborated with the Federal University of Ceara (UFC) on a project, called **RECAGUA**, to achieve water savings in our **co-generation system** by reducing raw water consumption in the cooling tower. The project team used mathematical models and specific software systems to develop the project. Some of the improvements identified by the project have already been implemented, **increasing tower efficiency from 36% to 66% and reducing energy consumption by 20%.**

All wastewater from our operations is treated at an **on-site wastewater treatment plant** and all treated wastewater is re-utilized—after water quality is confirmed by laboratory tests—in irrigation and landscaping.

Apodi's continuing commitment to water conservation means we are at all times alert to water savings opportunities. In 2019 we established a partnership with the Federal University of Ceara (UFC) to implement an **artificial intelligence system** at our plant in Pecem (CE), which has generated a range of benefits including water savings in the production process. For more information about the artificial intelligence system, see "Active collaborations with universities and research institutions" in the chapter "Stakeholder engagement".

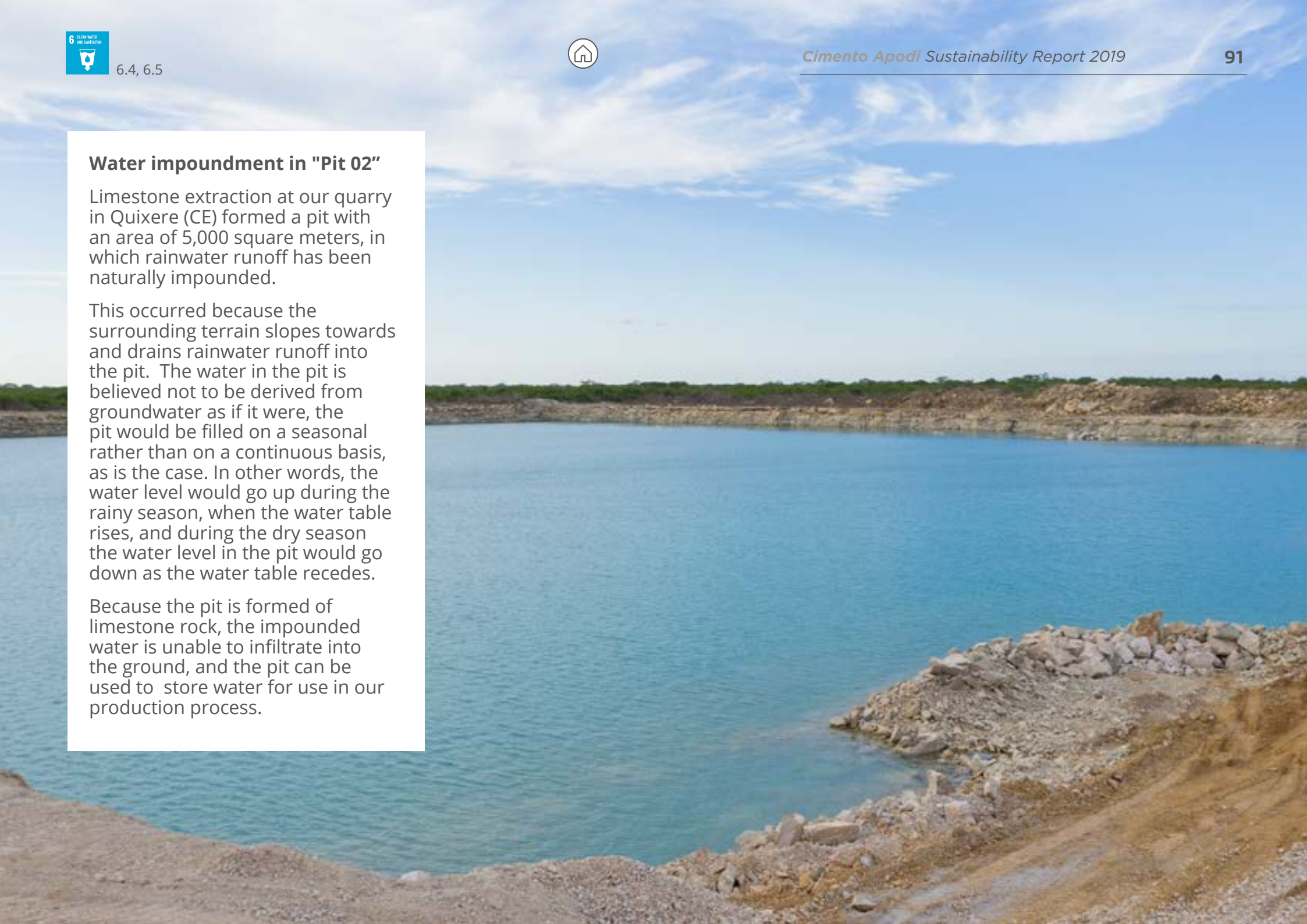


Water impoundment in "Pit 02"

Limestone extraction at our quarry in Quixere (CE) formed a pit with an area of 5,000 square meters, in which rainwater runoff has been naturally impounded.

This occurred because the surrounding terrain slopes towards and drains rainwater runoff into the pit. The water in the pit is believed not to be derived from groundwater as if it were, the pit would be filled on a seasonal rather than on a continuous basis, as is the case. In other words, the water level would go up during the rainy season, when the water table rises, and during the dry season the water level in the pit would go down as the water table recedes.

Because the pit is formed of limestone rock, the impounded water is unable to infiltrate into the ground, and the pit can be used to store water for use in our production process.





Waste management

Apodi has a waste management system that ensures compliant disposal of waste generated at our operations, leverages available technologies and methods to maximize reutilization or recycling (through waste segregation), and helps to maintain a clean and healthy work environment.

We use an online system, called **Selletiva Solucoes em Logistica Reversa**, to manage and monitor the waste materials generated in our operations, and to screen and manage the documentation of waste disposal contractors. This ensures increased waste disposal efficiency and control.

Air emissions

Apodi's **Emissions Management Plan** sets out procedures and methods for preventing, minimizing and monitoring emissions, and we have practices and procedures in place to ensure continual improvement of environmental performance in our operations. These include:

- the use of anti-pollutant equipment
- self-monitoring of air emissions
- quarry reclamation
- remediation of naturally degraded areas
- and other required measures

In our processing operations, we use an emissions control system that monitors the temperature and concentration of particulate matter. The emissions monitoring system consists of two gas analyzers and a particulate matter analyzer located in the main stack of the furnace.

Emissions through the furnace stack are monitored continuously by in-stack equipment, and samples are regularly collected and analyzed by an accredited laboratory.





Biodiversity

We have conducted a **detailed assessment to identify areas of high biodiversity value** adjacent to our operations. The assessment found that the ready-mix plant in Eusebio is within an area of high biodiversity value. These risk assessments provide essential inputs into our efforts to improve biodiversity management. In our following Sustainability Report, we will present the results from these assessments, the associated management plans and how they have supported continual improvement in our management of biodiversity-related issues.

We also have a **Biodiversity Preservation Program** to map out, assess and develop ways to protect and preserve fauna and flora species in areas near our operations.

Identified species are classified based on the International Union for Conservation of Nature (IUCN) Red List. Apodi also works to rehabilitate degraded areas through reforestation and other initiatives.

At the Quixere (CE) site, native tree species are being planted to form an “ecological corridor” connecting different protected areas together (651.3226 hectares), in a project that will reforest 10 hectares of land.

Environmental Impact Assessments (EIA) and other related environmental studies have not identified any threatened species at our sites.

The table below lists the species used for reforestation.

FAMILY	SCIENTIFIC NAME	COMMON NAME
Anacardiaceae	Myracrodruon urundeuva Allemao	Aroeira
Bignoniaceae	Handroanthus impetiginosus (Mart. ex DC.) Mattos	Purple ipe
Fabaceae	Anadenanthera sp.	Angico
Fabaceae	Caesalpinia pyramidalis Tul.	Catingueira
Fabaceae	Mimosa caesalpiniiifolia Benth.	Sabia
Bignoniaceae	Tabebuia impetiginosa Stand	Pink ipe

The assessment used the Integrated Biodiversity Assessment Tool (IBAT), a “one-stop shop” for the world's most authoritative biodiversity data. The IBAT tool can also be used to generate reports. We received support from Titan Group in collating the data and mapping out target locations in terms of their proximity to areas of high biodiversity value.

For more information about IBAT, [click here](#).



In summary:

Plant and quarries in Quixere (CE):

- The plant and quarries are not within or adjacent to areas designated for their high biodiversity value.
- The closest designated area is Furna Feia National Park, at a distance of 20 km from our site in Quixere (CE).

Grinding plant in Pecem (CE):

- The plant is not within or adjacent to areas designated for their high biodiversity value.
- The closest designated area is the Anace indigenous reserve, at a distance of 1 km from our site in Quixere (CE).
- There are also other designated areas at distances ranging from 5 km to 15 km.

Eusebio RMC Plant (CE):

- This site is within the “River Pacoti Protected Area”.
- There are also other areas designated for high biodiversity value at distances ranging from 0.7 km to 4.5 km.

Of the sites we assessed, only the Eusebio RMC site appears to be “sensitive” in terms of biodiversity, as it is within a protected area associated with the River Pacoti.

We will conduct a detailed investigation of the protection status of this designated area and the potential implications for our ready-mix operation in Eusebio, including any environmental restrictions and constraints and/or the need for a biodiversity management plan.





Environmental Education Center

As part of our commitment to minimizing environmental impacts from our operations and exercising environmental stewardship in communities near our operations, we provide ongoing environmental education to employees, communities and students to raise awareness of the importance of taking care of the environment in our day-to-day activities, and to encourage individuals to take responsibility for protecting the environment and improving their own quality of life by adopting new mindsets—beginning at the workplace.

We have continuously evolved and perfected our approach to environmental management. In August 2019 we opened an Environmental Education Center (EEC) to centralize our environmental strategies and activities.



4.4



12.2

Environmental Education Center (EEC) in Quixere (CE)

Apodi's Environmental Education Center in Quixere (CE) was named in tribute to Ivens Dias Branco, the patriarch of the Dias Branco Family, one of our Company's shareholders.

The EEC offers a venue for environmental education and outdoor sustainability-related activities. The center is open to employees as well as residents in surrounding communities and neighboring municipalities, universities and schools.

The Dias Branco Family, which has a 50% stake in Cimento Apodi, attended the opening ceremony on August 23, 2019 at the cement plant in Quixere (CE). Among the members in attendance were Mr. Ivens Dias Branco's (*in memoriam*) children—Claudio Dias Branco and Regina Dias Branco—and grandchildren—João Claudio Dias Branco, Gisela Dias Branco and Marcelo Dias Branco Ximenes.

The center features 12 education stations:

1. **Plant Nursery:** for producing seedlings of native species.
2. **Renewable Energy:** showing how the plant's exhaust gases are used to generate energy.
3. **Biodigester:** where biogas is produced
4. **Waste Management.**
5. **Caatinga Portal.**
6. **Permaculture Vegetable Garden:** a vegetable garden in the shape of a wheel as a sustainable option for small growers.
7. **Wildlife Walk:** featuring tracks produced by animals native to the *caatinga*.
8. **Vale do Jaguaribe Drainage Basin.**
9. **Stingless Bee Meliponary:** with three native species.
10. **Alternative Sewage Treatment.**
11. **Wormery and Composting Facility:** for production of organic fertilizer.
12. **Cimento Apodi Memorial.**

The EEC now manages other of our environmental education initiatives, including:

"Apodi Goes to School"

This project aims to increase public awareness about environmental issues, with a focus on students and teachers. Employees deliver presentations at schools about environmental topics and sustainability, as part of our Volunteering Program.

"Green Team"

Our "Green Team"—also a component of our Volunteering Program—is a multidisciplinary group of people from different departments and with different perspectives who work to raise awareness among employees and surrounding communities about the importance of the environment to human life, the impacts caused by human activities, and strategies to advance environmental causes.

The team's main goals are to:

- provide environmental education in our operations and communities
- provide environmental oversight and participate in developing environmental solutions
- support decision-making on environmental matters in our operations
- receive and relay information about the environment

Environmental Education Center

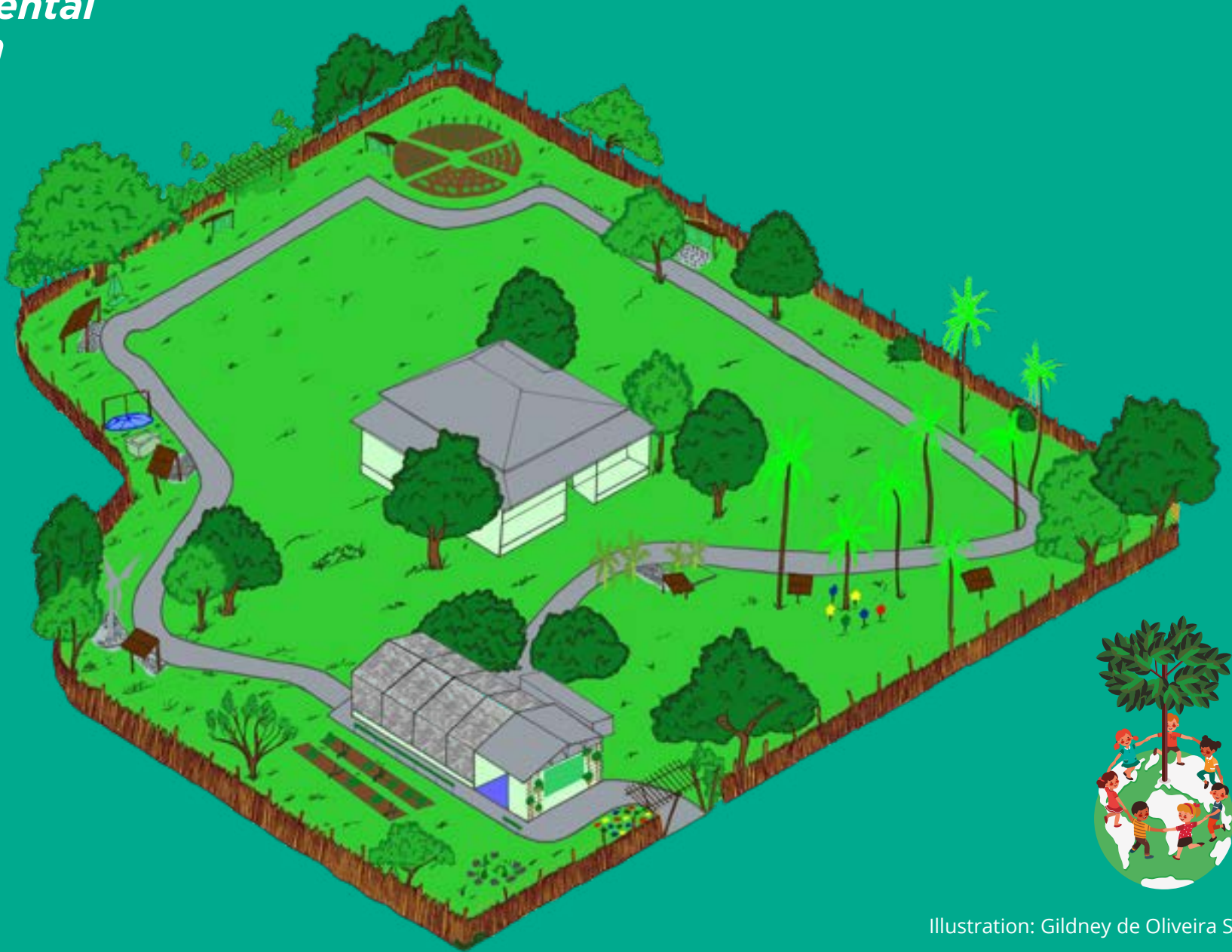


Illustration: Gildney de Oliveira Silva (from Movex)



Station 1 – Plant Nursery

WHY THIS TOPIC IS GLOBALLY IMPORTANT

For 58% of the world's land surface, which is home to 71% of the global population, the level of biodiversity loss is substantial enough to question the ability of ecosystems to support human societies. There are three reasons driving global concerns about preserving biological diversity. The first is that biological diversity is recognized as one of the fundamental properties of nature, responsible for maintaining ecosystem balance and stability. Second, biological diversity offers enormous potential for economic use, especially in biotechnology. Third, biological diversity has been shown to be deteriorating as species extinction rates increase as a result of impacts from human activities.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

Limestone and clay quarries are the primary sources of impacts from our value chain on BIODIVERSITY. But our industry can also have a positive impact on biodiversity by leaving a legacy in local communities from each stage of a quarry project—design, operation and decommissioning.

OUR CONTRIBUTION AS A COMPANY

In 2019 we conducted an assessment to identify areas of high biodiversity value adjacent to our operations, and to provide inputs into a biodiversity management plan for those areas. In another ongoing initiative, we are conducting a review of our mine closure plan to maximize value creation for communities and leave a positive legacy after decommissioning. In 2019 we reclaimed several disturbed areas to mitigate impacts on biodiversity.

OUR CONTRIBUTION AS INDIVIDUALS

We can help to maintain biodiversity by preserving native vegetation and avoiding alterations to watercourses, for example. Remember that water bodies and preserved vegetation provide habitats for a variety of important species.



Station 2 - Renewable Energy

WHY THIS TOPIC IS GLOBALLY IMPORTANT

A transition towards renewable energy is urgent if we are to effectively tackle the challenge of climate change. In recent years, greenhouse gas emissions from the energy sector in Brazil have increased due to the growing use of fossil fuels. In addition to the harmful effects from emissions, this has also made electricity more expensive for Brazilian consumers. Action to change this situation is long overdue—especially in a country with all the resources to do so. Ceara is among the fastest-growing renewables markets in Brazil.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

The manufacturing process for cement is both electric and thermal energy-intensive. Using renewable sources can therefore have a significant impact on eco-efficiency, by reducing both CO₂ emissions and production costs.

OUR CONTRIBUTION AS A COMPANY

We are the only company in South America to use Waste Heat Recovery (WHR) technology to convert exhaust gases from cement kilns into renewable and clean energy.

OUR CONTRIBUTION AS INDIVIDUALS

Use your vehicle only when necessary. Cars release large amounts of pollutants into the atmosphere, so restricting their use is important. If where you're going is within walking distance, why not walk there? As a vehicle owner you should regularly service your vehicle to minimize emissions. Fuel your vehicle with renewable fuels, like ethanol, rather than gasoline. Save electricity by keeping only the equipment you are using powered on. When using a computer, for example, your television doesn't also need to be on. When leaving a room, be sure to turn the lights off. Spending less time in the shower is also a great way to save on electricity.



Station 3 - Biodigester

WHY THIS TOPIC IS GLOBALLY IMPORTANT

According to a World Bank report published in May 2019, more than 800 million people around the world lack access to electricity. Universal access to affordable, reliable, and modern energy services is among the UN Sustainable Development Goals (SDGs) set to be achieved by 2030. Another important finding from the report concerns access to clean cooking solutions to prevent exposure to indoor smoke, which primarily affects women and children in homes where charcoal and wood are used as cooking fuels. The share of the global population with access to clean cooking increased to 61% in 2017 from 57% in 2010.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

The manufacturing process for cement is both electric and thermal energy-intensive. Using renewable sources can therefore have a significant impact on eco-efficiency, by reducing both CO₂ emissions and production costs. In addition, as a shared resource, our use of electricity needs to be optimized.

OUR CONTRIBUTION AS A COMPANY

We work to raise awareness in communities near our operations about alternative energy sources, especially low-cost microgeneration. We also encourage the use of biodigester systems by smallholders in the region as an alternative energy source. In addition, we regularly organize conferences on the subject led by government and non-government organizations, both through our Business-Community Committee and through the Vale do Jaguaribe Sustainability Committee, a larger forum involving municipalities in the region and approximately 40 government and non-government organizations.

OUR CONTRIBUTION AS INDIVIDUALS

People living in areas without access to electricity from a utility can use microgeneration technology to produce their own power.



Station 4 – Waste Management



WHY THIS TOPIC IS GLOBALLY IMPORTANT

“According to a *Circle Economy* report from January 2020, the global economy is currently only 8.6% circular—just two years ago it was 9.1%. This means the global circularity gap is widening. There are reasons for this negative trend, which can be explained by three related, underlying trends: high rates of extraction; ongoing stock build-up; plus, low levels of end-of-use processing and cycling. These trends are embedded deep within the “take-make-waste” tradition of the linear economy—the problems are hardwired. As such, closing the circularity gap will require transformative and correctional solutions; change is a must.”

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

The cement industry is a great example of how circular-economy concepts can be put into practice through the use of fuels and raw materials from other industries to reduce the industry’s environmental footprint and increase eco-efficiency.

OUR CONTRIBUTION AS A COMPANY

At Cimento Apodi, we: produce cement with fly ash, slag, limestone as filler and pozzolans; use byproducts from other companies at the Pecem (CE) complex in our production processes; use alternative raw materials in our production process; invest in research and innovation to expand the use of alternative raw materials; contribute to increased recycling of construction and demolition waste; monitor biodiversity and ecosystems surrounding our operations; develop action plans and manage improvements; promote sustainable consumption and use of water resources; provide employee training on the importance of preserving biodiversity and using water resources sustainably; have established public-private partnerships to develop sustainable solutions for using Refuse Derived Fuel (RDF) in our cement kilns; support the development of solutions for municipal landfills; exercise leadership on the Vale do Jaguaribe Sustainability Committee; and actively participate in the Ceara Platform 2050.

OUR CONTRIBUTION AS INDIVIDUALS

Be sure your household waste is disposed of properly. Proper waste disposal helps to prevent pollution and the spread of diseases. Garbage dumps in vacant land, for example, attract rodents, cockroaches and even dengue mosquitoes. Recycle your household waste. This avoids unnecessary use of natural resources and reduces the amount of waste left in the environment.



Station 5 – Caatinga Portal

WHY THIS TOPIC IS GLOBALLY IMPORTANT

Caatinga is the only 100% Brazilian biome. It covers an area of 844,453 Km² (IBGE, 2004) that is entirely within Brazil's borders, meaning its biological diversity is found in no other region in the world. *Caatinga* vegetation occurs in the states of Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, Bahia, Maranhão and northern Minas Gerais. It is bounded by another three Brazilian biomes: the Amazon, Atlantic Rain Forest and the *Cerrado*. Ceará is the state with the largest amount of area covered by *Caatinga*.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

Limestone and clay quarries are the primary sources of impacts from our value chain on BIODIVERSITY. But our industry can also have a positive impact on biodiversity by leaving a legacy in local communities from each stage of a quarry project— design, operation and decommissioning.

OUR CONTRIBUTION AS A COMPANY

In 2019 we conducted an assessment to identify areas of high biodiversity value adjacent to our operations, and to provide inputs into a biodiversity management plan for those areas. In another ongoing initiative, we are conducting a review of our mine closure plan to maximize value creation for communities and leave a positive legacy after decommissioning. In 2019 we reclaimed several disturbed areas to mitigate impacts on biodiversity. We maintain a reforestation area forming an ecological corridor. In 2018 and 2019, we reforested an area of approximately 10 hectares with native plant species.

OUR CONTRIBUTION AS INDIVIDUALS

Enjoy and value the natural wealth in your city, your state and your country. Help to raise awareness. Keeping our environment healthy is a shared responsibility, and it is therefore important that related information reaches all levels of society. Children, for example, will suffer most from the adverse impacts from human activity on nature, and need to be informed as they grow up about ways to reverse those impacts.



Station 6 - Permaculture Vegetable Garden



WHY THIS TOPIC IS GLOBALLY IMPORTANT

The United Nations (UN) Food and Agriculture Organization (FAO) estimates that about 800 million people around the world are engaged in urban agriculture, growing fruits and vegetables in their backyards or apartment buildings. Urban agriculture is an effective way to increase consumer access to healthy nutrition and fresher produce. It also generates employment, income and social inclusion opportunities, and helps to create greener cities.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

Cement fuels the development of cities, but urban growth must be balanced with rural development. Our cement plants are typically far from cities, often in rural areas. Encouraging community vegetable gardens is an important way we can attract people to farming and growing pesticide-free foods.

OUR CONTRIBUTION AS A COMPANY

An assessment in 2017 in neighboring communities found that 100% of the food consumed in these communities was purchased at stores rather than grown locally. Through community engagement initiatives, we supported projects to reestablish subsistence agriculture and develop businesses producing food products using local produce, such as our Women Entrepreneurs program.

OUR CONTRIBUTION AS INDIVIDUALS

Start a vegetable garden at your home... Buy organic foods whenever available. Choosing pesticide-free, organic foods protects not only your health but also the environment.



Station 7 – Wildlife Walk

WHY THIS TOPIC IS GLOBALLY IMPORTANT

Plants and animals help to maintain ecological balance, and are highly important for human existence. Plants release oxygen that animals need to breathe. In turn, animals release carbon dioxide that plants need for photosynthesis. Plants and animals also provide humans with a source of food and medicines. Animals help to balance the food chain and, consequently, their global populations. Animal droppings fertilize the soil. Decaying animal carcasses provide mineral supplements for other animals. Plants and animals make the world more beautiful. People visit reserves, national parks, zoos, forests and botanical gardens to enjoy the beauty of this natural heritage. This underlines the importance of plants and animals for our day-to-day lives. Flora and fauna also support local economies by attracting tourists. Plants and animals in the Amazon forest attract both tourists and scientists, contributing around US\$ 50 million to Brazil's economy.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

The Brazilian Policy on Climate Change establishes general and sector-specific targets for 2020, including a 5% reduction in emissions from cement plants. Efforts to meet the target will push our industry further toward sustainability, and help us to set an example for other industries. Preserving the wildlife surrounding plants, both through legally required protected areas and through joint wildlife protection initiatives, is now higher than ever on the industry's agenda.

OUR CONTRIBUTION AS A COMPANY

Apart from environmental protection activities that are mandatory by law—including more than 600 ha of forest reserves—we support programs that capture and release wild animals in appropriate locations, or place them in the care of animal protection institutions where they cannot be released into our own reserves. We also organize initiatives to mark important dates related to the environment, especially initiatives around the *Caatinga*, the dominant biome in Brazil's Northeast, where our facilities are located. Initiatives at schools and in surrounding communities support environmental education and preservation. In weekly training sessions, including induction and other training courses, we emphasize the importance of living harmoniously with, respecting and protecting wildlife.

OUR CONTRIBUTION AS INDIVIDUALS

Never purchase or sell wild animals. Animal trafficking is a serious global problem that directly threatens a region's biodiversity, and can even drive species into extinction.



Station 8 - Vale do Jaguaribe Drainage Basin



WHY THIS TOPIC IS GLOBALLY IMPORTANT

Water is essential for life on our planet. The first life forms emerged in water and later gave rise to land-dwelling organisms; these, however, were only able to survive because they evolved physiological mechanisms for retrieving and retaining water from the environment. The evolution of living organisms has always been dependent on water.

Water is the most critical and important element sustaining human life. It makes up 60 to 70% of the human body; it regulates our internal temperature; and it is essential for all bodily functions. On average, our bodies require 4 liters of water per day. Water is also needed to prepare food and beverages. This makes safe, high-quality freshwater a precious resource. There is a false notion that water resources are infinite. While the earth does have an abundance of water, less than 3% is freshwater—and more than 99% of all liquid freshwater is either frozen in polar regions or trapped in underground lakes and rivers, making it difficult to access.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

The cement industry has a range of both positive and negative impacts on water resources. Cement plants withdraw water from a variety of sources for industrial uses, including cooling towers, vehicle washing and for cooling water in cement mills. Water is also used in office applications including bathrooms, cafeterias and cleaning. As an example of how water reuse has generated positive impacts in our operations, we harvest water from a quarry pit and use it for spraying unpaved roads to prevent particulate emissions. Part of this water returns to the environment through evaporation. Part of the water used to cool exhaust gases is absorbed in the process and released in the form of steam. The remainder is pumped to an on-site wastewater treatment plant or to a municipal treatment plant, before being discharged into a water body. Ready-mix plants, like cement plants, derive water from a variety of different sources. Part of this water is incorporated into the end product and part is used for other purposes, such as wetting aggregate piles, vehicle yards and loading stations, and washing vehicles and mixer drums. A small portion of this water returns to the environment through evaporation.

OUR CONTRIBUTION AS A COMPANY

In 2019 we conducted a water risk assessment across our operations using the Aqueduct tool of the World Resources Institute (WRI). This will inform a strategic plan for water resource management over the coming years. These initiatives are extremely important given that most of our operations are located in areas with water stress.

OUR CONTRIBUTION AS INDIVIDUALS

Use less water! Saving water can be easier than you think. Little things like taking shorter showers and checking your plumbing for leaks can make a big difference. Harvesting rainwater and reusing water from your washing machine are additional ways to reduce consumption.



Station 9 - Stingless Bee Meliponary

WHY THIS TOPIC IS GLOBALLY IMPORTANT

Bees are essential for pollination of the fruits and vegetables we grow for food, such as tomatoes, eggplant, coffee and cocoa. However, many species of bee are on the brink of global extinction. The situation is so serious that organizations like the UN are now warning of impending food shortages caused by mass extinction of pollinating insects. In Brazil, populations of bees and other pollinators are predicted to decrease by 13% by 2050, according to research by the University of Sao Paulo (USP). Bees also contribute enormously to sustaining forests. If they become extinct, plant reproduction will be compromised as more than 90% of flowering plant species in the tropics and 78% of species in temperate zones depend on pollination by bees.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

Cement plants are typically located in the countryside near limestone quarries, away from major city centers. They have profound impacts on host communities, including their economies, employment opportunities and investments. A host community will often become highly dependent on the cement plant, which increases its responsibility for supporting traditional livelihoods—such as small-scale beekeeping.

OUR CONTRIBUTION AS A COMPANY

We recognize the importance of preserving traditional livelihoods in communities surrounding our plants, and beekeeping—while not organized at commercial scale—is a popular hobby in households in Vale do Jaguaribe. In addition to providing a source of income, honey also provides healthy nutrition to families in small-town Ceara.

OUR CONTRIBUTION AS INDIVIDUALS

Prioritize the use of biological crop protection over pesticides. Buy organic foods whenever available. Choosing pesticide-free, organic foods protects not only your health but also the environment.



Station 10 – Alternative Sewage Treatment

WHY THIS TOPIC IS GLOBALLY IMPORTANT

Basic sanitation is essential in the transition to becoming a developed country. Treated water and sewage collection contribute to improved quality of life, reduced infant mortality, better schools, increased tourist inflows, higher property value, improved income for workers, reduced river pollution and greater preservation of water resources.

According to the Ministry of Health (DATASUS), more than 258,000 inpatient admissions in Brazil in 2017 were due to diseases caused by poor sanitation.

Gradual improvements in sanitation over the next 20 years (from 2016 to 2036) will generate estimated savings of R\$ 5.9 billion from reduced sick pay and national healthcare system costs.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

The cement industry can make a positive contribution to the development of efficient and economically viable basic sanitation infrastructure.

OUR CONTRIBUTION AS A COMPANY

We develop innovative technologies to build and maintain sewage treatment infrastructure with minimal impact. Effluents from our operations at Apodi are treated in wastewater treatment plants and used for landscaping and grounds irrigation. We also support education through visits from students to our plants, who then cascade what they have learned to their families and communities.

OUR CONTRIBUTION AS INDIVIDUALS

Using appropriate septic systems to treat sewage in areas without access to sewage collection systems.



Station 11 – Wormery and Composting Facility

WHY THIS TOPIC IS GLOBALLY IMPORTANT

Composting is a way of “recycling” organic waste (leftover fruit, vegetables and food in general, rakings and trimmings, fabric rags, sawdust, etc.) by converting it into compost. It is a biological process that accelerates the decomposition of organic matter, producing organic compost as the end product.

Composting reclaims nutrients from organic waste and feeds them back into the natural cycle, improving the soil for agriculture or gardening. It is also a way to reduce the volume of waste that would otherwise accumulate in landfills, releasing foul odors, methane gas (a greenhouse gas 23 times more destructive than carbon dioxide) and leachate (a liquid that contaminates soil and water). Today, about 55% of the waste produced in Brazil is organic waste, which is mostly dumped in landfills, preventing biodegradation.

Only 1.5% of organic waste was recycled in Brazil in 1999, compared to 28% in England, 12% in the U.S. and 68% in India. There are several ongoing international experiments that are collecting organic waste for composting and supplying the resulting compost for free to local communities. This increases society’s awareness that organic waste has value, as it returns to communities as a benefit that saves them money they would otherwise spend on chemical fertilizers.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

There is a global debate about the importance of composting as a way to make better use of organic waste going to landfills. Cement companies, which use kilns that can burn waste, are also at the center of discussions around the organization of a value chain for municipal solid waste by leveraging alternative technologies, such as co-processing, incorporating municipal waste into the energy mix.

OUR CONTRIBUTION AS A COMPANY

We actively participated in the organization of the municipal landfill consortium in Ceara. Within the company, we have a seedling nursery and a composting system in which leaves, grass clippings and trimmings from our grounds are recycled into compost that has been used at the seedling nursery and for reforestation. The compost is also donated to community associations on special dates and observances related to the environment, as a way of raising awareness about and encouraging the use of agro-ecological technologies.

OUR CONTRIBUTION AS INDIVIDUALS

Use organic waste to produce natural fertilizer. Find out more about composting and how to do it yourself at home or at your local school (by setting up a composting bin). Separate organic waste from dry and recyclable material, preventing one from contaminating the other. Advocate for waste segregation and composting at your City Hall.



Station 12 – Cimento Apodi Memorial

WHY THIS TOPIC IS GLOBALLY IMPORTANT

Several studies have shown that preserving historical heritage helps to strengthen local identity, as well as creating a sense of belonging and building self-esteem in communities.

WHY THIS TOPIC IS IMPORTANT FOR THE CEMENT INDUSTRY

Cement provides the basis for building people's future and dreams, whether it's decent housing, new roads or healthcare facilities. Strengthening the perceived value of this economic activity can enrich local culture more broadly. Preserving local historical and natural heritage, such as at our mining operations in Vale do Jaguaribe, Ceara, helps to foster a sense of belonging and self-esteem in local communities.

OUR CONTRIBUTION AS A COMPANY

Through educational activities in local schools, we foster appreciation for local culture and regional wealth, including mineral wealth, while building a sense of community. We also actively participate in leading the Vale do Jaguaribe Sustainability Committee

OUR CONTRIBUTION AS INDIVIDUALS

Do your part to preserve local culture and raise awareness about the importance of cultural diversity as a lever for creating value for society.



Community outreach



Guiding principles

We recognize that our relations with the communities where we operate are of vital importance for us, and we work continuously to support local development.

Wherever we have operations, we are committed to fostering engagement, cooperation and positive relations with surrounding communities.

This commitment takes a variety of forms depending on the local culture and conditions—but primarily consists of providing know-how, expertise, technical support and financial support for initiatives supporting the social and environmental development of communities surrounding our business units. Our community initiatives are aligned with the Apodi Corporate Social Responsibility (CSR) Policy.

Throughout 2019, **1,380 people were reached by our social programs.**

Apodi's social activities accommodate the diverse demographics of the different regions where we operate. We **operate on two major fronts: taking care of communities and supporting development.**

Taking care of communities

On the “Taking care of communities” front, one of our most significant initiatives is in the **Bom Sucesso community.**

Assessment

In 2017, an assessment of communities neighboring our operations identified needs in the areas of education, sports, housing and income opportunities. Based on the assessment, we developed social programs designed to deliver the highest possible impact by involving the municipal government and the community itself in initiatives.

A survey identified that in the Bom Sucesso community near our Quixere (CE) plant, 70% of households are headed by women. The survey also showed that 10% of respondents were illiterate. Most respondents (70%) said they had only studied up to the 6th to 9th grade. And only 10% had completed secondary education. This indicated a significant opportunity for educational development in the community.

Shared program governance

With so many challenges to address, this was clearly not a program we could manage on our own. A joint initiative with shared governance would be needed to tackle identified issues.

In addition to supporting and working with the local government, we also needed to create value for community members. We held a series of planning meetings that were attended by the mayor, municipal secretaries and formal and informal community leaders.

Building engagement

Social programs are an important part of our relationship with communities. To better structure our community engagement efforts and enable community members to communicate their needs directly, we created a **Business-Community Committee** that meets every two months or as otherwise necessary.

Meetings are preferably held at our plants and are attended by the plant manager to increase engagement.

In addition to the Business-Community Committee, we have implemented other communication channels—including a dedicated WhatsApp group—that both parties can use at any time to discuss issues and concerns directly.

In Quixere (CE), as a first step, we opened the doors to the plant to build trust and engagement with the community.



After establishing closer engagement with the community, initiatives then began to be developed, including the following:

Strengthening the residents' association

We re-articulated the association's goals and strengthened its leadership, helping community leaders to recognize the importance of community organization. The association's bylaws were reformulated, and we provided training that encouraged association members to implement initiatives to improve people's lives in their community.

Community work

We also recommended community cleanup initiatives involving the Company, the community and the municipal government.

Supporting sports, recreation and culture in the community

We have encouraged community members to engage in sports, cultural and recreation activities and, as a result, have witnessed a notable improvement in community wellness and engagement in these activities. We supported, for example, a *capoeira*

(an Afro-Brazilian martial art) project that provides participants with an opportunity not only to engage in physical activity, but also to develop ethics and altruism.

***Acordes de Sucesso*—a music appreciation project**

Because the community is located in a rural area more than 30 km away from our plant, residents complained about the lack of recreation infrastructure and activities for children and youth. In response, we initiated a musical appreciation project for children, called *Acordes do Sucesso*, in 2017. The project teaches music as an afterschool activity.

The program currently provides choir, flute and guitar lessons to 115 people, including youth, adults and elderly people.

"Building Knowledge" program—raising schooling levels

We believe there is no better way to empower people than through education. Guided by this belief, we implemented an initiative—called "Building Knowledge"—that has helped 82 people complete primary and secondary education.



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Supporting entrepreneurship—“Women Entrepreneurs” project

Following our preliminary efforts to build trust and closer engagement with communities, and to empower individuals, we then worked with community members to develop an entrepreneurship initiative for women who are heads of households and need an alternative source of income, as they are unable to take regular jobs away from home.

A community survey also showed that community members purchase 100% of the food they consume, revealing an

opportunity for residents to produce organic foods for themselves.

This led us to create the Women Entrepreneurs project as a way to create business opportunities for women who are heads of households, who account for 70% of families in the community. Our catering supplier, Serlares, was invited as a partner in the project to include women entrepreneurs in its supply chain. We also involved professors and students from education institutions in the region, including the Federal University

of Ceara (UFC) and the Federal Institute for Education, Science and Technology of Ceara (IFCE), to advise the group on entrepreneurship and food preservation practices, respectively.

Throughout 2019, project beneficiaries participated in dozens of fairs at our plants and in neighboring communities to showcase and sell locally produced sweets and desserts, in an initiative that has strengthened the regional identity and underlined the importance of women's participation in the economy.





Supporting development

The following are some of the most important initiatives on this front:

Leadership of the Vale do Jaguaribe Sustainability Committee

Apodi has played a leadership role on the Vale do Jaguaribe (*) **Sustainability Committee** (www.comitedesustentabilidade.com.br), created in 2017. The Committee brings together local stakeholders—including municipal governments, city councils, education, research and technology institutions, and companies—in formulating projects for the sustainable development of the region. The committee was formally created in April 2017 on the initiative of Apodi, which has a plant in Quixere (CE).

It has since been our role to lead the Committee, with responsibility for governance and oversight of resolutions and projects. Committee meetings are held on a quarterly basis.

Around 40 government agencies, non-government organizations and private companies are represented on the committee.

One of the primary benefits from the initiative is integration—helping organizations that have interests in common to work together. All participants are highly motivated to address problems and find solutions, and this has helped to drive positive performance.

(*) Vale do Jaguaribe is one of the 14 economic subdivisions of the state of Ceara, comprising the municipalities of Russas, Morada Nova, Limoeiro do Norte, Jaguaribe, Tabuleiro do Norte, Quixere, Jaguaratama, Alto Santo, Pereiro, Iracema, Jaguaribara, Sao Joao do Jaguaribe, Erere and Potiretama.

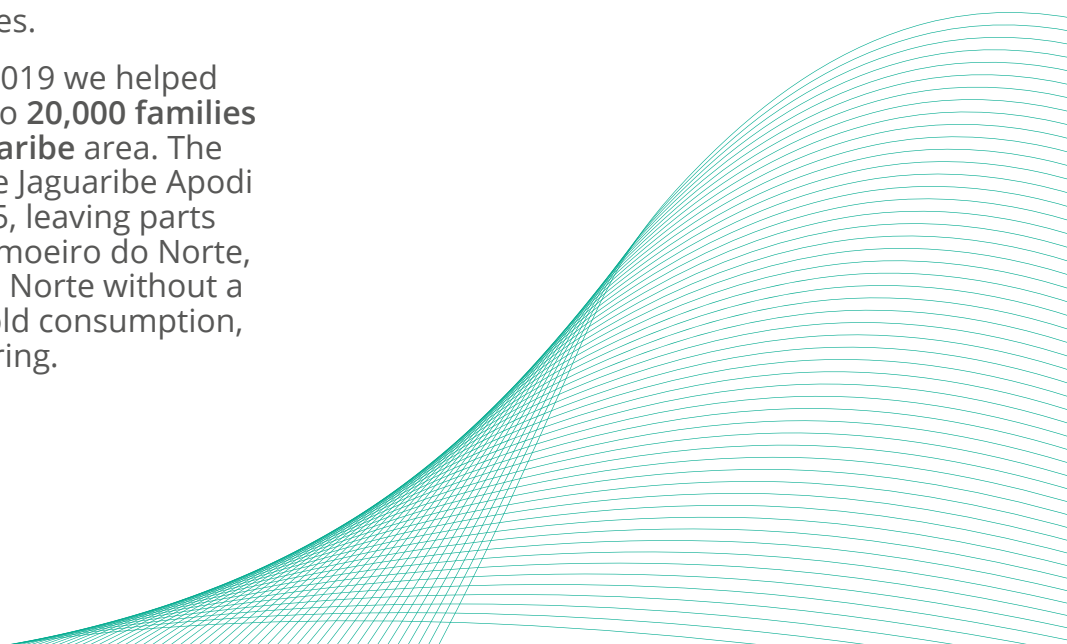
Charity and humanitarian aid

Apodi also actively supports communities through charitable initiatives—such as distributing Christmas hampers and encouraging volunteer work—and in responding to emergencies.

For example, on July 20, 2019 we helped to **restore water supply to 20,000 families living in the Vale do Jaguaribe area**. The main water pipeline in the Jaguaribe Apodi area had failed on June 25, leaving parts of the municipalities of Limoeiro do Norte, Quixere and Tabuleiro do Norte without a water supply for household consumption, irrigation and cattle watering.

Apodi repaired the pipeline in record time, restoring supply of the precious resource in less than one month. In the last stage of the repair works, the concrete placement team worked a total of 19 hours straight.

The social impact from the works was significant. In addition to household consumption, the area served by the Jaguaribe Apodi pipeline annually produces R\$ 30.6 million in fruit produce, R\$ 11.4 million in dairy products and R\$ 9.6 million in grains. In total, the area supports 2,185 direct jobs and 2,384 indirect jobs.





Industrial Process Operator Course

Our Industrial Process Operator Course (COPI), developed through a partnership with SENAI, is another Apodi initiative that is supporting educational development and skills building. A total of 25 young students completed the 700-hour course in 2019, and are now better equipped for the job market.

The initiative is especially valuable given the shortage of skilled workers in local industry

Social Academia

Social Academia is a project designed to reconcile communities' need for technical support with university students' need for practical experience. Through the project, young academics engage in university extension activities under the supervision of a professor and an Apodi employee.

In 2019, three initiatives were organized and 14 students directly supported the following social programs:

Social entrepreneurship: developing a sweets business in the Bom Sucesso community.

Partners: Federal University of Ceara (UFC– Russas campus) and Federal Institute for Education, Science and Technology of Ceara (IFCE) in Limoeiro do Norte.

Feasibility study on the co-processing of carnauba extraction waste at Quixere (CE).

Partners: Federal University of Ceara (UFC)—Russas and Fortaleza campuses, Center for Industrial Technology and Quality of Ceara (NUTEC) and Memorial Carnauba in Jaguaruana (CE).

Music appreciation project.

Partners: Federal Institute for Education, Science and Technology of Ceara (IFCE) in Tabuleiro do Norte.

By helping to build capabilities in communities, students have also developed their own skills. The students who supported the social entrepreneurship project also received awards and academic recognition.





Educational Robotics Project

Launched at the end of 2019, this educational project supports our objective of increasingly investing in education and innovation. In 2019 we completed the first phase of the project, in which around 300 students and teachers at a municipal school in Quixere (CE) were familiarized with the subject of robotics through a workshop for teachers and presentations and interactive games for students.

We plan to roll out the project across the municipal school network in Quixere, Russas and Limoeiro do Norte, Ceara, three cities from which 95% of employees were sourced for our plant in the region.

The project will comprise two stages. The first will teach the basics of Educational Robotics using LEGO robotics kits, and will include training for both instructors and students at

municipal schools in participating cities. In this second stage, we will organize a series of robotics events in the Vale do Jaguaribe area including workshops, fairs and championships.



Grinding plant in Pecem (CE)

Our Pecem (CE) plant is located in an industrial park known as the Pecem Industrial and Port Complex (CIPP). Along with other large industrial companies that are members of the Association of Pecem Industrial and Port Complex Companies (AECIPP), we are part of a corporate social responsibility movement led by the Association.

As a zoned industrial park, the complex is located a long distance from neighboring communities. The working group of which we are a member organizes initiatives that ensure our social investments are optimized and deliver the highest possible impact.

We are active members of the following working groups: Communications; Supplier Development; Logistics; Environment; Water; Human Resources; Social Responsibility; Health: Security; and Strategic Health & Safety Planning.



Ready-mix plants

Social initiatives at our ready-mix plants in 2019 largely revolved around employee volunteering, with 100% participation from leadership teams. One of these initiatives engaged partners and raised funds for improvements at a local municipal school, in a collective effort organized by the Company.

Employee volunteer initiatives range from landscaping projects—such as hedge fences and seedling planting—to initiatives promoting the consumption of organic produce from vegetable gardens. Plant litter that would previously build up on the roof of the casting facility and curing tank area, creating a safety hazard, is now removed and used as fertilizer.

Studies are also being conducted into the feasibility of burning (co-processing) unused additives in the kiln at our Quixere plant.



Corporate Volunteering Program

In 2019 we structured a Corporate Volunteering Program to provide employees with opportunities to donate their time, labor and talent to volunteering work. The program aims to disseminate the concept of volunteering and encourage free, voluntary and informed participation by employees in community initiatives recommended by the Company.

Apodi's Corporate Volunteering Program has a goal of promoting improved quality of life and sustainable development in communities, while supporting the development of participating employees and partner organizations. To the extent possible, volunteering initiatives are organized in communities surrounding our operations, preferably in partnership with a recognized local organization.

Our volunteering initiatives fall under three major categories:

- Continuous initiatives: year-long activities conducted by employees and interns, either individually or collectively. Continuous initiatives support local communities and are required to be aligned with programs in the areas of local development, job and income creation, professional education and the environment/environmental education.
- One-time initiatives: one-off collective community activities carried out during working hours by Company employees, interns and contractors (with permission from their employers), without creating an extended relationship with the partner organization. These initiatives can be freely selected and can be conducted on a specific day or during

the course of a week. Participation by each business unit depends on the level of interest and buy-in from employees, interns and contractors.

- Donation campaigns: internal campaigns supported by the Company to collect donations of different materials that are subsequently donated to a charity. These include campaigns organized during Occupational Accident Prevention Week (SIPAT), such as winter clothing and book donation campaigns.

How the volunteering program works: the Executive Sustainability Committee approves initiatives and encourages participation Company-wide. Facilitators plan the initiatives and encourage employees to participate. Employees, interns and contractors confirm their interest and register to participate in the relevant continuous and/or one-time initiative. Volunteering work is monitored at each stage of the process.



Example initiative School Renovations

In 2019 we launched campaign to implement infrastructure improvements at public schools in communities near our headquarters, grinding plant and cement plant, in respectively Fortaleza, Pecem and Quixere, in Ceara.

Local education departments identified schools requiring renovations and we internally encouraged employees to participate in the initiative. On the Saturday before National Volunteering Day, on August 24, 150 employees had the opportunity to engage in volunteering work for the benefit of their communities. The initiative benefited more than 500 children at three schools. Parents and school employees also joined us in the activities, which included paintwork, minor renovations, landscaping, gardening and general repairs.

[Click here](#) to view the full video about our volunteering program.





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Open Doors Program

Apodi's Open Doors Program aims to build closer engagement with our communities and strengthen relations with stakeholders. It also provides an opportunity to share information about our social responsibility/ investment programs and the cement production process with customers, construction professionals and students in related fields.

All of our facilities are open to visitation (cement plant, grinding plant, ready-mix plants and distribution centers). Visits can be arranged for specific groups (schools, universities, communities, government organizations, construction professionals and other interested parties) as well as for individuals. Visits can be scheduled either through our communications channels or directly at each site.

To date, the program has arranged more than 5,000 visits from residents in neighboring districts, university students and the broader community. In 2019, a total of 1,050 people participated in the program. In addition to general information about Apodi and our operations, visitors also receive information about social and environmental aspects.





Investments and Statement of Added Value



Investments

In the short and medium term, our first goal is to establish ourselves as a leading player with a strong presence in the markets where we operate. In the long term, our focus will be on securing the ongoing longevity of our business through an effective, responsible and sustainable business model.

We will continue to invest in technology, innovation, and continuous improvement of our operations and processes to strengthen competitiveness and drive performance.

Our investments in 2019 were a total of approximately R\$ 27.1 million.

Statement of Added Value

The Statement of Added Value depicts the wealth created by the Company and how that wealth is distributed among our various stakeholders. Our Statement of Added Value for fiscal 2019 is as follows:

SAV 2019

Description	Unit	2019
Revenue—gross sales of products and services, other revenue and lending	R\$	461.57 mn
Inputs purchased from third parties	R\$	-229.25 mn
Gross added value	R\$	232,312 mn
Depreciation, amortization and depletion	R\$	-46.88 mn
Net value added	R\$	185.43 mn
Transferred added value received	R\$	8.91 mn
Total added value to be distributed	R\$	194.34 mn
Distribution of added value	R\$	194.34 mn
Net revenue by product	R\$	343.70 mn
Cement	R\$	299.43 mn
Concrete	R\$	28.45 mn
Aggregates	R\$	0.00 mn
Dry mortar	R\$	0.00 mn
Other	R\$	15.82 mn
Value creation for key stakeholders	R\$	194.34 mn
Employee benefits	R\$	47.66 mn
Value added for government	R\$	115.45 mn
Interest on third-party capital	R\$	39.64 mn
Interest on equity	R\$	-8.40 mn
Cement sales	t	1,199,173
Concrete sales	m ³	98,285

A close-up photograph of a person's hand holding a black pen, writing on a white document. The document has the word 'apodo' and 'CIMENTO' printed on it. To the left of the document is a green folder or folder with the same 'apodo CIMENTO' branding. The scene is set on a dark wooden desk. A white rectangular box is overlaid on the bottom left of the image, containing the word 'Appendixes' in a bold, dark red font.

Appendixes



A1 - Environmental performance

1. Performance of all activities, acc. to the Sectoral Approach adopted by TITAN

		Note	Unit	Value	SDGs & Targets	Code	Global Sectoral Approach
Local Impacts Impact on natural resources	Raw materials extracted (total, wet)		million t	1.28	SDG 12 Target 12.2	EP01L	GCCA
	Raw materials extracted for clinker and cement production		million t	1.28		EP02L	GCCA
	Raw materials extracted for aggregates		million t	0.00		EP03L	GCCA
	Raw materials consumed (total)			0.00			GCCA
	Raw materials consumed for clinker and cement production (dry)		million t	0.00		EP04L	GCCA
	Raw materials consumed for other applications (wet)		million t	0.18		EP05L	GCCA
	Externally recycled waste materials (total, wet)		t	1,045.28	SDG 12 Targets 12.4 and 12.5	EP06L	TITAN standards & UNCTAD 12.5.1
	Recycled		t	416.08			
	Reused		t	615.61			
	Recovered		t	13.60			
Impact on water recourses	Water consumption (total)		million m³	0.50	SDG 6 Targets 6.3, 6.4 and 6.5	EP07L	GCCA
	Water withdrawal (total, by source)		million m³	0.50		EP08L	GCCA
	Groundwater		million m ³	0.40			GCCA
	Municipal water		million m ³	0.04			GCCA
	Rainwater		million m ³	0.00			GCCA
	Surface water		million m ³	0.00			GCCA
	Quarry water		million m ³	0.06			GCCA
	Ocean or sea water		million m ³	0.00			GCCA
	Wastewater		million m ³	0.00			GCCA
	Water discharge (total, by destination)		million m³	0.00		EP09L	GCCA
	Surface (river, lake)		million m ³	0.00			GCCA
	Ocean or sea		million m ³	0.00			GCCA
	Off-site treatment		million m ³	0.00			GCCA & UNCTAD 12.5.1



1. Performance of all activities, acc. to the Sectoral Approach adopted by TITAN (continued)							
		Note	Unit	Value	SDGs & Targets	Code	Global Sectoral Approach
Impact on biodiversity and land stewardship	Active quarry sites with biodiversity issues	1.3		0.00	SDG 15 Targets 15.3, 15.4, 15.5, 15.9 and 15.a	EP10L	WBCSD/CSI
	Active quarry sites with biodiversity management plans	2.3		-		EP11L	WBCSD/CSI
	Active quarry sites with biodiversity management plans		%	-		EP12L	WBCSD/CSI
	Sites with community engagement plans	4	%	0.00		EP13L	WBCSD/CSI
	Sites with quarry rehabilitation plans	3	%	0.00		EP14L	WBCSD/CSI
Fuels & Energy Impact on energy recourses	Thermal energy consumption (total)		TJ	3,357.98	SDG 7 Target 7.2	EP16L	GCCA & UNCTAD 7.3.1
	Electrical energy consumption (total)		TJ	442.23		EP17L	GCCA & UNCTAD 7.3.2

2. Cement Activities – Environmental Performance, acc. to the Sectoral Approach adopted by TITAN							
		Note	Unit	Value	SDGs & Targets	Code	Global Sectoral Approach
Climate Change Impact on Greenhouse Gas Emissions	Specific gross direct CO2 emissions		kg/t Cementitious product	633.00	SDG 9 Target 9.4	EP18L	GCCA
	Specific net direct CO2 emissions		kg/t Cementitious product	627.50		EP19L	GCCA
Alternative fuels and materials	Alternative fuel substitution rate		% Heat Basis	10.11	SDG 7 Targets 7.2, 7.3 and 7.a SDG 12 Target 12.2	EP21L	GCCA & UNCTAD 7.2.1
	Biomass in fuel mix	5	% Heat Basis	7.64		EP22L	GCCA & UNCTAD 7.2.1
	Clinker to cement ratio			0.70		EP23L	GCCA
Impact on energy recourses	Thermal energy consumption						
	Cement and grinding plants and attached quarries		TJ	3,341.04		EP24L	GCCA
	Alternative fuels consumption (total)		t	20,300.00		EP25L	GCCA
	Electrical energy consumption (total)						
	Cement and grinding plants and attached quarries		GWh	122.71		EP26L	GCCA



2. Cement Activities – Environmental Performance, acc. to the Sectoral Approach adopted by TITAN (continued)

		Note	Unit	Value	SDGs & Targets	Code	Global Sectoral Approach
Local Impacts Impact on natural resources	Materials consumption (total, dry)		million t	0.00	SDG 12 Target 12.2	EP27L	GCCA
	Extracted (natural) raw materials consumption (dry)		million t	0.00			
	Alternative raw materials consumption (dry)		million t	0.00			
	Alternative raw materials use (of total raw materials consumed)		% dry				TITAN standards
	Alternative raw materials rate (based on clinker-to-cement (equivalent) factor)		% dry	18.42		EP28L	GCCA
Impact on water recourses	Water consumption (total)		million m3	0.44	SDG 6 Targets 6.4 and 6.5	EP29L	GCCA
Other air emissions	Specific dust emissions		g/t Clinker	94.12	SDG 3 Target 3.9 SDG 9 Target 9.4	EP31L	GCCA
	Specific NOx emissions		g/t Clinker	3,634.71		EP32L	GCCA
	Specific SOx emissions		g/t Clinker	490.66		EP33L	GCCA

3. All Activities - Investments for the Environment

		Note	Unit	Value	SDGs & Targets	Code	Global Sectoral Approach
	Environmental expenditures across all activities		million €	0.17	SDG 7 Target 7.b	EP40L	UNCTAD 7.b.1
	Environmental management		million €	0.05	SDG 9 Target 9.4		
	Reforestation		million €	0.05			
	Rehabilitation		million €	0.00			
	Environmental training and awareness building		million €	0.00			
	Application of environmentally friendly technologies		million €	0.00			
	Waste management		million €	0.07			



NOTES

Notes on external assurance, standards, guidelines and terms used

(SG) TITAN follows the GCCA Sustainability Framework Guidelines (last edition 2019), and the Sustainability Guidelines for the monitoring and reporting of CO₂ emissions from cement manufacturing, co-processing fuels and raw materials, monitoring and reporting of emissions, and monitoring and reporting of water in cement manufacturing (for all documents the reference is to the last edition in 2019). The above Guidelines had superseded in 2019 the previous—and respective—Guidelines of the WBCSD/CSI, which were the guidance for measuring, reporting and verifying environmental performance until (and including) year 2018. Further, TITAN has used in 2019 the Guidelines of the (previously) WBCSD/CSI for the monitoring and reporting of our performance in the areas of: quarry rehabilitation, biodiversity management, and environmental and social impact assessment. This was necessary because of the absence of any such (superseding or equivalent) documents of the GCCA. For the Sector standards see details in Table A2. “Sector Standards for non-financial reporting” (mandatory).

Notes for specific Environmental Performance indicators

- (1) Active quarries within, containing or adjacent to areas designated for their high biodiversity value.
- (2) Sites with high biodiversity value where biodiversity management plans are actively implemented.
- (3) Coverage includes all quarries attached to cement plants and also quarries for aggregates production.
- (4) Indicator on “Sites with community engagement plan” is related only to quarries and is reported for 2019.
- (5) Biomass rate corresponds to the percentage of total thermal energy consumption that comes from renewable energy sources.

A2 - Sector Standards for non-financial reporting

Industry Association or Initiative	Guidelines and other documents of reference	Published
GCCA	<ul style="list-style-type: none"> • GCCA Sustainability Charter • GCCA Sustainability Framework Guidelines • GCCA Sustainability Guidelines for the monitoring and reporting of safety in cement manufacturing. This document has been agreed within the GCCA to have extended application to concrete and other related activities [Pillar 1] • GCCA Sustainability Guidelines for the monitoring and reporting of CO₂ emissions from cement manufacturing [Pillar 2] • GCCA Sustainability Guidelines for the monitoring and reporting of water in cement manufacturing [Pillar 4] • GCCA Sustainability Guidelines for the monitoring and reporting of emissions from cement manufacturing [Pillar 4] • GCCA Sustainability Guidelines for co-processing fuels and raw materials in cement manufacturing [Pillar 5] 	Latest edition in October 2019
(Previously) WBCSD/CSI	<ul style="list-style-type: none"> Guidelines for Environmental and Social Impact Assessment (ESIA) Biodiversity Management Plan Guidance Guidelines on Quarry Rehabilitation Recommended Good Practices for: (a) Contractor Safety, and (b) Driving Safety 	2016 2014 2011 2009

NOTES: The GCCA has built its Sustainability Charter around five (5) Sustainability Pillars:

Pillar 1: Health and Safety, Pillar 2: Climate Change and Energy, Pillar 3: Social Responsibility, Pillar 4: Environment and Nature, and Pillar 5: Circular Economy



A3 - Social performance

		Note	Value	SDGs & Targets	Code	Global Sectoral Approach
Health and safety **	All activities performance acc. to the TITAN Global Sectoral Approach					
Data: Quixere Plant	Employee fatalities		0	ODS 3	SP01L	GCCA & UNCTAD 8.8.1
	Employee fatality rate		0	3.6 Target	SP02L	GCCA & UNCTAD 8.8.1
	Contractors fatalities		0	ODS 8	SP03L	GCCA & UNCTAD 8.8.1
	Third-party fatalities		0	Target 8.8	SP04L	GCCA & UNCTAD 8.8.1
	Employee Lost Time Injuries (LTIs)		0		SP05L	GCCA & UNCTAD 8.8.1
	Employee Lost Time Injuries Frequency Rate (LTIFR)		0		SP06L	GCCA & UNCTAD 8.8.1
	Employee lost working days		0		SP07L	GCCA
	Employee Lost Time Injuries Severity Rate		0		SP08L	GCCA & UNCTAD 8.8.1
	Contractors Lost Time Injuries (LTIs)		2		SP09L	GCCA & UNCTAD 8.8.1
	Contractors Lost Time Injuries Frequency Rate (LTIFR)		2.71		SP10L	UNCTAD 8.8.1
	All activities performance leading indicators					
	Near Misses	1			SP11L	UNGC
	Training man-hours on health and safety per employee	1			SP12L	UNGC
Employment	Number of employees as of 31 December		491	ODS 5	SP14L	UNGC
Data: Quixere Cement Plant, Pecem Grinding Plant, Distribution Centers, Administrative Offices, Commercial Offices and Ready-Mix Plants	Employee turnover (%)		18	Targets: 5.1, 5.4, and 5.5	SP15L	UNGC
	Employees left		88		SP16L	UNGC
	Employee new hires (%)		10	ODS 8	SP17L	UNGC
	Employee new hires		51	Targets: 8.5, 8.6, and 8.8	SP18L	UNGC
	New hires by age group				SP19L	UNGC
	Under 30		14	ODS 10		
	Between 30-50		33	Target 10.3		
	Over 50		4			
	Employee hires by gender				SP20L	UNGC and D&I
	Women		9			
	Men		42			



		Note	Value	SDGs & Targets	Code	Global Sectoral Approach
Data: Quixere Cement Plant, Pecem Grinding Plant, Distribution Centers, Administrative Offices, Commercial Offices and Ready-Mix Plants	Employees by age range			ODS 5 Targets: 5.1, 5.4, and 5.5	SP21L	UNGC
	Under 30		154			
	Between 30-50		296			
	Over 50		41	ODS 8 Targets: 8.5, 8.6, and 8.8	SP22L	UNGC
	Workforce by type					
	Full time		491	ODS 10 Target 10.3		
	Part time		0			
	Temporary		0			
	Workforce by category				SP23L	UNGC
	Managers		57			
	Senior Managers		22			
	Administration/technical		202			
	Semi skilled/unskilled		210			
	Workforce by gender				SP24L	UNGC and D&I
	Women		83			
	Men		408			
	Share of women in employment (%)		16.90%		SP25L	UNGC and D&I
	Share of women in management (%)		20.30%		SP26L	UNGC and D&I, and UNCTAD 5.5.2
	Share of women in Senior Management (%)		9.09%		SP27L	UNGC and D&I, and UNCTAD 5.5.2
	Employees sourced from local communities (%)		95.11%		SP28L	UNGC & Local
	Unionized employees (%)		59.27%		SP29L	UNGC
Stakeholder engagement	Interns		9		SP43L	UNGC and EP4Y
Data: Quixere Cement Plant, Pecem Grinding Plant, Distribution Centers, Administrative Offices, Commercial Offices and Ready-Mix Plants	New entry level jobs from internships/traineeships	1	-5		SP44L	UNGC and EP4Y
	Spend on local suppliers (%)		79.88%	SDG 9; Target 9.3	SP45L	UNGC & UNCTAD 9.3.1



A4 - The 10 Principles of the Global Compact

Area/Global Compact	Related Global Compact principle . Our reference to commitments in 2019 . Corporate Social Responsibility at Cimento Apodi	Our commitments	Reference in the Cimento Apodi Sustainability Report 2019
Human rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights within their sphere of influence.	a. Our Corporate Values b. Code of Ethics & Business Conduct c. Corporate Social Responsibility Policy	OUR COMPANY (Page 12): Timeline, Our Values and Corporate Social Responsibility Policy. OUR MATERIAL TOPICS (Page 26): How we create value, material topics and SDGs. HEALTH & SAFETY: SP KPI Appendixes (SP 01 – SP 10). PEOPLE MANAGEMENT: SP KPI Appendixes (SP 15 – SP 18). LOCAL DEVELOPMENT: SP KPI Appendixes (SP 28, SP 23 and SP 45). APPENDIXES: Environmental Performance Index (EP KPIs) and Social Performance Index (SP KPIs). SP KPIs include KPIs on health and safety.
Labor standards	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining. Principle 4: Businesses should uphold the elimination of all forms of forced and compulsory labor. Principle 5: Businesses should uphold the effective abolition of child labor. Principle 6: Businesses should uphold the elimination of discrimination in respect of employment and occupation.	a. Our Corporate Values b. Code of Ethics & Business Conduct c. Corporate Social Responsibility Policy d. Health & Safety Procedures e. Anti-corruption Policy	OUR COMPANY (Page 12): Timeline, Our Values and Corporate Social Responsibility Policy. OUR MATERIAL TOPICS (Page 26): How we create value, material topics and SDGs. HEALTH & SAFETY (Page 72): Health & Safety Guidelines and SP KPIs (SP 01 – SP 10). PEOPLE MANAGEMENT (Page 79): Guidelines on human resources, diversity and engagement surveys. ETHICS & INTEGRITY (Page 22): Code of Ethics & Business Conduct and Anti-corruption Policy. COMMUNITY OUTREACH (Page 110): Supporting development, KPI: “Number of committee meetings”. APPENDIXES: Social Performance Index. SP KPIs include KPIs on health and safety.



Area/Global Compact	Related Global Compact principle · Our reference to commitments in 2019 · Corporate Social Responsibility at Cimento Apodi	Our commitments	Reference in the Cimento Apodi Sustainability Report 2019
Environment	<p>Principle 7: Businesses should support a precautionary approach to environmental challenges.</p> <p>Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility.</p> <p>Principle 9: Businesses should encourage the development and diffusion of environmentally friendly technologies.</p>	<p>a. Our Corporate Values</p> <p>b. Code of Ethics & Business Conduct</p> <p>c. Corporate Social Responsibility Policy</p> <p>d. Environmental Policy</p>	<p>OUR COMPANY (Page 12): Timeline, Our Values and Corporate Social Responsibility Policy.</p> <p>OUR MATERIAL TOPICS (Page 26): How we create value, material topics and SDGs.</p> <p>ENVIRONMENTAL MANAGEMENT (Page 85) and EP KPIs (EP 07 and EP 29 – Water; EP 16 – EP 19, EP 21 to EP 26 – CO₂; and EP 06, EP 21 – EP 23, EP 21, EP 28 and EP 36 and EP 37 – AFR and Circular Economy)</p> <p>Engaging with local communities through social programs and SP KPIs (SP 28, SP 43 and SP 45).</p> <p>APPENDIXES: Environmental Performance Index (EP KPIs) and Social Performance Index (SP KPIs). SP KPIs include KPIs on health and safety.</p>
Anti-corruption	<p>Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.</p>	<p>a. Our Corporate Values</p> <p>b. Code of Ethics & Business Conduct</p> <p>c. Corporate Social Responsibility Policy</p> <p>d. Anti-corruption Policy</p>	<p>BUSINESS ETHICS AND INTEGRITY (Page 22): Code of Ethics & Business Conduct and Anti-corruption Policy.</p>



A5 - Membership of associations

Associations/Organizations/ Institutions	Membership of Governance Body	Participation in Projects and Committees	Person Representing the Organization
Association of Pecem Industrial and Port Complex Companies (AECIPP)	Yes	We are members of the following working groups: <ul style="list-style-type: none"> • Communications • Supplier Development • Logistics • Environment • Water • Human Resources • Social Responsibility • Health • Security • Integrated Health & Safety Plan 	Chief Financial Officer
National Cement Industry Union (SNIC)	Yes	We participate as a member in developing collective solutions for the industry and engaging in industry advocacy with government agencies and society at large.	CEO and Vice President
Brazilian Portland Cement Association (ABCP)	Yes	We attend periodic ABCP meetings to develop technical solutions and identify opportunities for collaboration with other players in the industry. A case in point was our collaboration in research on the use of concrete in replacement of asphalt for road surfacing. ABCP studies also provide inputs into discussions with local authorities on public investment.	CEO and Vice President
Brazilian Association of Brokerage Firms (ABESC)	Yes	As one of our differentiators, we provide technical and technology support to our customers, especially in concrete mix design. Our membership of ABESC provides opportunities for training and reskilling.	Vice President and Chief Commercial Officer



A6 - Collaborations

We collaborate with public and private institutions to optimize resources and increase impact, including through university-industry collaborations and innovation, and by establishing multi-stakeholder arrangements to develop solutions across the sustainability pillars: economic, environmental, social and cultural.

A total of 40 public (government and non-government) and private institutions are members of the Vale do Jaguaribe Sustainability Committee. Those with which we have collaborated most intensively are listed below:

COLLABORATION	WEBSITE
Federal University of Ceara (UFC)—Russas campus - UFC/Russas co-heads the Vale do Jaguaribe Sustainability Committee and is collaborating with us on waste-to-energy projects using carnauba biomass, and on the Women Entrepreneurs project.	http://www.campusrussas.ufc.br
Center for Industrial Technology and Quality of Ceara (NUTEC) —NUTEC is our partner on a waste-to-energy project using carnauba biomass.	https://www.nutec.ce.gov.br
Federal Institute for Education, Science and Technology of Ceara (IFCE)—campuses: Fortaleza, Tabuleiro do Norte, Jaguaruana and Limoeiro do Norte —We are collaborating with these IFCE campuses on the following projects: Women Entrepreneurs, Educational Robotics and using native crops as biomass.	https://ifce.edu.br/tabuleirodonorte
Memorial Carnauba —This institution is collaborating with us on a waste-to-energy project using carnauba biomass.	https://www.facebook.com/memorialcarnauba
Industry-Led Training Service (SENAI) —SENAI has provided professional training services to Apodi, specifically for the 1 st class of our Industrial Process Operator course.	https://www.senai-ce.org.br
Industry-Led Social Service (SESI) —SESI is our partner in the “Building Knowledge” program, which is working to raise schooling levels in communities surrounding our plants.	https://sesi-ce.org.br
Ceara State Industry Federation (FIEC) —FIEC collaborates with us through SESI/SENAI and on stakeholder engagement, sustainability and corporate social responsibility initiatives.	https://www1.sfiec.org.br
Associação comunitária Padre Abdon Valerio de Bom Sucesso e Baixa do Felix - This association is our partner in social programs in communities.	https://www.facebook.com/projetonovobonsucesso
Instituto Paju - This institute is our partner on a project that is mapping out housing needs to address the housing deficit in the state of Ceara.	https://institutopaju.org.br
Municipal Government of Quixere (CE) —We partner with the municipal government on infrastructure and education projects in our communities.	https://www.quixere.ce.gov.br
Ceara State Department for Economic Development and Employment —Our partner for economic development projects.	https://www.ceara.gov.br/organograma/sde
Ceara State Department for the Environment —Our partner for environmental education and stakeholder engagement initiatives within the Solid Waste Consortium program.	https://www.sema.ce.gov.br
Ceara State Department for City Development —Our partner for engagement and interaction with stakeholders within the Solid Waste Consortium program.	https://www.cidades.ce.gov.br



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We value **your feedback!**

We are committed to continuous improvement in our reporting process. We believe that reporting on our activities, projects and initiatives is not only about being accountable to the market and society; it is also about disseminating good practices and building engagement around sustainable development.

And we value your opinion on our reporting. For any feedback, questions or request for clarification about our Sustainability Report, please write to: sustentabilidade@cimentopodi.com.br.

