



# Annual Report

Crop Year 2021-2022



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# Introduction

GRI 102-45, 102-46, 102-49, 102-50, 102-51, 102-52, 102-53, 102-54

The Atvos Annual Report communicates our operational, market, economic, financial, social and environmental performance in the 2021/2022 crop year. This report covers the period from April 1, 2021 to March 31, 2022.

The information herein on our initiatives and results is inclusive of all Atvos operations unless otherwise specified. The report has been prepared in accordance with the Core option of the *Global Reporting Initiative* (GRI) Standards, an internationally recognized sustainability reporting framework. Our material topics are described on page 72. The relevant GRI disclosures are flagged throughout the text, and on page 75 we provide an index containing a description of each disclosure and a cross reference to where it can be found in the report.

The 2021/2022 Atvos Annual Report is available on [our website](#) in both Portuguese and English. If you have any compliments, questions, complaints or suggestions about this report, please write to: [contato@atvos.com](mailto:contato@atvos.com). **GRI 102-53**

We hope you find the report useful and informative.



▶ The report has been prepared in accordance with the **Global Reporting Initiative Standards**, an internationally recognized sustainability reporting framework

# Message from our Leadership

GRI 102-14

Atvos made important strides in the 2021/2022 crop year. We expanded our operations—resuming investments in our mills and new sugarcane plantations—and we laid the foundation to become more efficient, sustainable and competitive in producing clean energy from sugarcane.

We were faced with significant challenges in the crop year, both internally and externally, with the lingering Covid-19 pandemic requiring continued vigilance. As in the previous crop year, we produced and donated 70% alcohol to state and municipal governments and other government agencies, and within our operations we continued to follow Covid-19 protocols to protect our team members. The vaccine rollout brought new hope and allowed us to gradually resume our routines and in-person meetings.

Internally, we began an effort to restructure our company with the approval of a new Business Plan outlining four pillars that will guide our activities over the coming years: Agricultural Productivity, Cost Efficiency, Organizational Alignment and Business Sustainability. Together with our recently approved Agricultural and Industrial Master Plan, these pillars lay out a blueprint for a more sustainable future for our business, underpinned by a solid governance foundation.

We are an agricultural company at our core. And we understand that to produce better-quality commodities we need to perfect our crop management practices, grow our sugarcane on fertile soil and maintain minimum sugarcane renewal rates in order to expand our crush capacity. Each of our departments has also worked to uphold the standards of management, governance and safety needed for sustained growth.



We enjoyed one of our **best financial years** to date in the 2021/2022 crop year

And this virtuous cycle of growth is already underway. In 2021 we launched a program, called *Avante Atvos* (“Atvos Forward”), that embodies our transformation journey to achieve our maximum potential with the help of each of our team members. We also expanded CUBO, a logistics tracking platform designed to improve harvesting productivity.

We ended the 2021/2022 crop year with a sugarcane crush of 22.5 million metric tons, a figure that reflects the challenging



conditions in the sugar and ethanol industry, and especially the effects on sugarcane crops from adverse weather in the Southeast and Midwest regions. However, record commodities prices in the sector helped to offset the decline in production, allowing us to enjoy one of our best financial years to date. Net revenue was R\$ 6.87 billion, adjusted EBITDA was R\$ 2.2 billion, and cash generation was R\$ 1.34 billion.

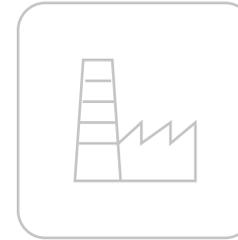
With our capacity for investment significantly improved, we invested R\$ 693 million in our field and mill operations, an increase of 75% on the previous crop year. We expanded our crop care operations, renewed our machinery fleet and trained our team members.

In addition, we reformulated our training approach for internal teams and communities with the launch of MOVA, a training planning program. The 2021/2022 crop year also provided an opportunity to reaffirm our commitment to diversity; during the period we organized our first Diversity Week and formed a Diversity & Inclusion Committee.

In terms of environmental performance, we continued to play a leading role within the Federal Government’s RenovaBio program as one of the largest issuers of carbon credits (CBIOs) in the industry, and we invested in sustainable solutions in our operations that are helping to capture more value from byproducts throughout our value chain. This year we are revisiting our ESG program to set targets that will enable us to become an even more sustainable and competitive company, creating value and positive impacts for our stakeholders.

Atvos is experiencing a period of transformation and growth. We are grateful for the daily dedication of our team members, suppliers, partners and all of those who are helping us to build our future. We invite you to learn about our challenges and successes in the 2021/2022 crop year in this Annual Report.

**Gustavo Alvares**  
CEO



**75%** more investment in our field and mill operations in the crop year



# The crop year **at a glance**



## Production indicators

- **483,000 hectares** of sugarcane fields.
- **22.5 million metric tons** of sugarcane crushed.
- **1.67 billion liters of ethanol**—71.4% hydrous and 28.6% anhydrous.
- **397,000 metric tons** of VHP sugar.
- **1,550 GWh of clean and sustainable** electricity.
- **2.1 million** decarbonization credits (CBIOS) issued.



## Agricultural Performance

- **562 metric tons** of sugarcane harvested per machine per day.
- **Harvester elevator hours** improved from 9:38 to 10:49.
- **Harvester availability** improved to 85.8% (vs. 83.2% in the previous crop year).
- **Tractor availability** improved to 84.9% (from 83.9%).
- **Our Água Emendada (GO) operation received on Agricultural Productivity Award** from Grupo IDEA and the Sugarcane Technology Center.



## Environmental and regenerative practices

- **40,000 hectares** of soybean fallow crops.
- **12,200 metric tons** of filter cake used.
- **76,400 hectares** fertigated with vinasse.
- Our Conquista do Pontal (SP) operation received a **UDOP/Embrapa award for Good Environmental Practices**.



## Financial Performance

- **R\$ 6.87 billion in net revenue**, up 35% on crop year 2020/2021.
- **R\$ 2.2 billion in adjusted EBITDA\***, up 84%.
- **R\$ 1.34 billion in cash generation\*\***, a gain of 55% on the previous crop year.
- **R\$ 693 million** invested in our field and mill operations.

\* Excluding the effects of IFRS 16 and amortization of crop care operations

\*\* Cash generation is operating cash flow less CAPEX and changes in working capital



## CUBO

Our harvest monitoring program was rolled out at 6 additional operations, **helping to remove 115 redundant pieces of equipment from the field** by minimizing machinery downtime.



## Field and mill indicators

- **8.3 TSH** (Metric Tons of Sugar per Hectare).
- **135.5 average TRS** (Total Recoverable Sugar).
- **52.8 TCH** (Metric Tons of Cane per Hectare) - own farms.
- **68.8 TCH** (Metric Tons of Cane per Hectare) - contract farms.

# The crop year **at a glance**



We improved our harvester and tractor availability rates through **increased investment in maintenance.**



## Avante Atvos

We launched **Avante**, a program that is mobilizing the company across four fronts—culture, sustainable development, value capture and operational excellence—to achieve our maximum potential.



## Emissions avoided

Consumption of our products **avoided 5.14 million tCO<sub>2</sub>** equivalent in emissions.



## Partnership with Mitsubishi

We offset all greenhouse gas (GHG) emissions in the 2021 and 2022 seasons of the *Mitsubishi Rally*. An estimated **564 metric tons** of CO<sub>2</sub> emissions **were neutralized.**



## Diversity

We implemented a **Policy and inaugurated a Committee** to Foster discussions and initiatives around diversity, respect, equality and a nurturing workplace. The first issue the Committee will address is gender equity. In recognition of these efforts, our Eldorado (MS) operation received a **Women-Friendly Mark** from the São Paulo State Government.



## MOVA

We created **Modelo Vivo de Aprendizagem** (MOVA), a new corporate training program.



## Governance

- **100% of team members** informed about anti-corruption policies and procedures.
- **1,200 hours of online training** about the **Brazilian General Data Protection Regulation (BR GDPR).**
- **In accordance with our External Audit Policy**, we engaged Ernst & Young to perform a review of our financial statements for crop year 21/22.
- **We created a cybersecurity program** based on the NIST Cybersecurity Network methodology.



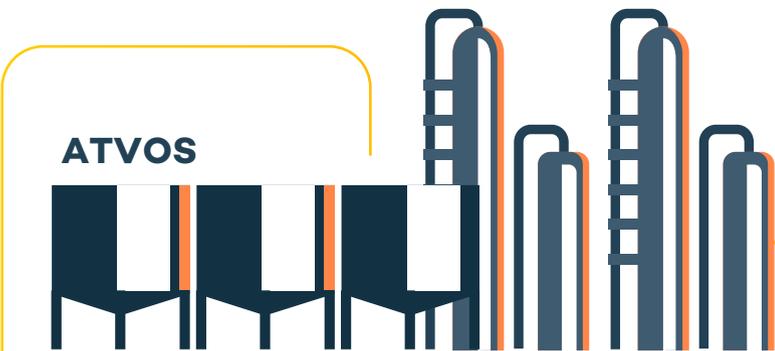
# About **Atvos**

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# Our company

GRI 102-1, 102-2, 102-5, 102-6

Welcome to Atvos Bioenergia S.A. Our company produces and sells ethanol, VHP sugar, electricity and decarbonization credits (CBIOs) from sugarcane biomass. We are one of the largest ethanol producers and suppliers in Brazil, and are helping to create a cleaner energy mix and reduce GHG emissions in the country. Learn about our different products in the infographic opposite:



## ETHANOL

We market two types of ethanol: anhydrous anhydrous



Also known as pure or absolute ethanol, anhydrous ethanol is added to gasoline to improve performance and reduce emissions



Commonly referred to as alcohol, hydrus ethanol is used directly as vehicle fuel

### Distributors



Our customers are fuel distributors that supply ethanol to service stations

### Service stations



### PRODUCTION CAPACITY

2.9 billion liters annually

## VHP SUGAR

VHP stands for Very High Polarity sugar, a coarse sugar used as a raw material to produce refined sugar



Refined Sugar



### International market



Our customers are trading companies that sell our sugar to refineries, where it is processed into products that are shipped to global markets

650,000 metric tons per crop year

## ELECTRIC POWER

In the production of ethanol, we burn sugarcane bagasse (biomass) to generate electricity

### Plant requirement

Part of the electricity is supplied to our mills

### Thermal, mechanical and electric energy



The surplus is exported to the National Grid under contracts in the Regulated Contracting Environment (ACR) and Free Contracting Environment (ACL)

### National Interconnected System (SIN)



3,900 GWh per crop year

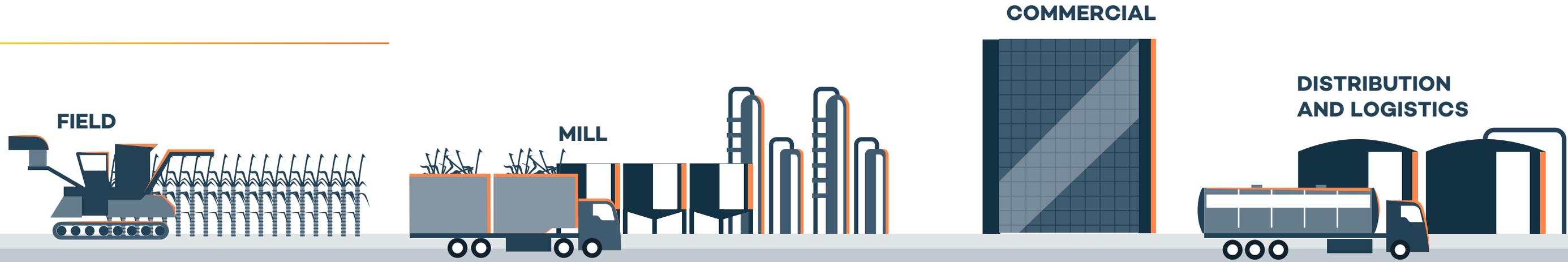
## CBIOs

As a biofuels producer and a participant in the RenovaBio program, Atvos is entitled to issue and sell decarbonization credits. Each CBIO unit is equivalent to one metric ton of avoided carbon emissions



More than 2 million CBIO units issued in the crop year

# Our business model



**Natural capital**

- 207,400 hectares of protected areas
- 12,200 metric tons of filter cake used
- 76,400 hectares fertigated with vinasse
- 5.14 million tCO<sub>2</sub>e in emissions avoided

**Human capital**

- 9,172 team members
- 8,657 contractors
- 504,000 hours of training
- 100% of team members trained on our Code of Conduct

**Financial capital**

- R\$ 6.87 billion in net revenue
- R\$ 1.34 billion in cash generation
- R\$ 3.15 billion in economic value distributed
- R\$ 693 million invested in our field and mill operations

**Social and relationship capital**

- Donation of 70% alcohol
- 5.8 million people benefited
- 220,000 liters delivered
- 30 municipalities benefited
- Stronger Partners program
- 42 sugarcane suppliers
- 10 million metric tons of sugarcane delivered

**Operating performance**

- 483,000 hectares planted
- 22.5 million metric tons of crushed sugarcane
- 100% mechanized harvesting
- We produced:
  - 1.67 bn liters of ethanol
  - 397,000 metric tons of VHP sugar
  - 1,550 GWH of electricity
  - 2.1 million CBIos

# Our operations

GRI 102-4, 102-7

Atvos has three operations clusters located in four Brazilian states (São Paulo, Goiás, Mato Grosso and Mato Grosso do Sul). A total of 9,172 team members work in our operations and offices:

## Offices

More than **300 employees** work at our Headquarters in São Paulo (SP) and our office in Campinas (SP). **GRI 102-3**



## Taquari Cluster

This cluster comprise two operations, named after their host municipalities of Alto Taquari, Mato Grosso, and Costa Rica, Mato Grosso do Sul.

## Goiás Cluster

This cluster comprises three operation sites in the state of Goiás: Rio Claro, in the municipality of Caçu; Morro Vermelho, in the city of Mineiros; and Água Emendada, in Perolândia.

## South Cluster

This cluster comprises four operations straddling the border between the states of São Paulo and Mato Grosso do Sul: Conquista do Pontal, in Mirante do Paranapanema (SP), Alcídia\*, in Teodoro Sampaio (SP); Eldorado, in Rio Brillante (MS); and Santa Luzia, in Nova Alvorada do Sul (MS).

\* hibernating



# Our values

GRI 102-16



**Purpose**  
To deliver creative and profitable **clean-energy solutions** that are sustainable for our planet.



**Belief**  
Clean energy is **essential for the continued progress** of humanity.



## Principles

Ethics and integrity: **doing the right thing**, transparently and honestly.

Valuing and **developing people**.

**Sustainable operations** in partnership with suppliers, customers and employees.

Commitment to **productivity and results for shareholders** and society.

Serving customers with **innovation and responsibility**.



**We produce clean and sustainable energy that benefits our planet**

# External initiatives

GRI 102-12, 102-13



## Pacto Global Rede Brasil

In 2016 we joined the Global Compact Network Brazil, a UN sustainability initiative that brings companies together in support of the Sustainable Development Goals (SDGs) and ten universal principles in the areas of human rights, labor, the environment and anti-corruption. In 2020, we joined the Brazil Network Steering Board (CORB), a governance body that includes a number of companies that are highly engaged within the Network.

During the previous crop year we collaborated on the development of an Anti-Corruption Best Practice Guide for Agribusiness, alongside 17 other companies in the industry (learn more on page 23). We are also signatories of the Women's Empowerment Principles (WEPs), a Global Compact and UN Women initiative that outlines a set of seven principles providing guidance to companies on how to advance gender equality and end discrimination in the workplace.



We have been a member of Instituto Ethos since 2017. This Institute engages and supports companies in managing their businesses more sustainably.



In 2019 we joined a São Paulo State Government initiative that encourages companies to adopt enterprise strategies to mitigate greenhouse gas emissions. Our Conquista do Pontal operation in Mirante de Paranapanema (SP) represents Atvos within the program.



We support the United Nations' **2030 Agenda**



# Governance

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# Governance structure

GRI 102-18

Lone Star Funds acquired a controlling interest in Atvos in 2020. In August 2020 a court in São Paulo approved a Court-Supervised Reorganization Plan (CRP) under which enhanced governance measures are currently being implemented. As part of these measures, we reinstated a Board of Directors with five members, including three independent members. Key among the Board's roles is appointing the CEO.

In the previous crop year we engaged Ernst Young (EY) to conduct an audit of our financial statements for both previous and the current crop year.

## Board of Directors

### Alex Grau

Chairman of the Board  
Appointed by the controlling shareholder

### Gustavo Aurvalle Alvares

Appointed by the controlling shareholder

### Julio Toledo Piza

Independent member

### Luciano Sfoggia

Independent member

### Timothy Powers

Independent member

## Statutory Board

### Gustavo Aurvalle Alvares

CEO, appointed by the Board

### Dario Costa Gaeta

Executive officer, appointed by the Board

### Eduardo de Almeida Pinto Andretto

Executive officer, appointed by the Board

### Francisco Augusto de Meireles Reis

Executive officer, appointed by the Board

We have made efforts to **strengthen our governance systems** and improve communication across decision-making bodies



Four advisory committees assist the Board of Directors in fostering ethics, compliance, and financial, environmental and operational sustainability. The roles of each of these committees are described below:

- **Finance, Investment and Audit Committee:** assesses financial risks in transactions, and oversees independent auditor engagements.
- **People, Organization, Sustainability and Communication Committee:** this committee assists in matters related to our team members, including leadership training and compensation, as well as corporate sustainability.
- **Compliance Committee:** this committee helps to foster integrity, ethics and transparency through audits to identify and address nonconformities and improve controls and processes. It leads the Risk & Compliance and Audit functions, ensuring they operate independently.
- **Agricultural Committee:** provides oversight of our Investment Plan and Agricultural Development Plan.

In the 2021/2022 crop year, as part of the changes taking place in the organization, we assessed our strategic functions and revisited some of their roles. The goal was to improve coordination and communication across functions, and enhance overall governance.

We perfected cross-function communication and documentation processes to optimize the governance structure. As part of this, we implemented a software platform, with support from our Information Technology (IT) team, to schedule meetings and document discussions. The new platform also mediates communications with Board members. All Board members and executive officers have now been trained to use the new system.

## Judicial Reorganization

With the approval of our Judicial Reorganization Plan by our creditors and subsequently by the court, we have taken a number of steps to improve governance and financial sustainability. Among these measures, we engaged agricultural and financial inspectors to monitor and oversee operating and financial indicators and compliance with the reorganization plan.

Atvos ended the 2021/2022 crop year well-capitalized and prepared to honor its obligations to creditors, and with surplus capacity for investment. We paid two installments\* to non-financial creditors (suppliers and contractors) under the judicial reorganization plan, and two installments\*\* to financial creditors.

\* The second installment was paid in August 2022.

\*\* Installments were paid in June and September 2022.





# Compliance

GRI 102-11, 102-17, 205-1

Atvos has a Risk & Compliance function that reports directly to the Board of Directors via our Compliance Committee. We also have policies, codes and procedures in place to ensure high standards of integrity in our operations. Our related policies and standards include the following:

- **Atvos Compliance Management System Policy**
- **Risk Management Policy**
- **Privacy Policy (conforming to the BR GDPR);**
- **Employee Code of Conduct**
- **Anti-Corruption Guidelines**
- **Policy on Gifts, Entertainment & Hospitality**
- **Policy on Managing Conflicts of Interest**
- **Due Diligence Policy**
- **Private Social and Environmental Investment Policy**
- **Sponsorship Policy**
- **Government Relations Policy**

We aim to ensure that all team members understand and follow our policies. In the 2021/2022 crop year we developed a number of employee guides on key compliance issues, including: Offering and Receiving Gifts, Third-Party Due Diligence, Conflicts of Interest and Meals, Entertainment and Hospitality.

We provided all team members with training on our newly updated Code of Conduct and its requirements on ethics, integrity and transparency. The Code is available on the company intranet as well as in print in each of our operations. Employees also attended a newly developed training program on the Brazilian General Data Protection Regulation (BR GDPR). These two training modules, as well as training on Anti-Corruption and Conflicts of Interest, are mandatory for all new team members. Departments involved in contracting, such as Procurement, Commercial and Legal, also receive training on Third-Party Due Diligence.



We provided Code of Conduct **training to all team members**



**100%**  
of team members informed  
about our **anti-corruption  
policies and procedures**

**Employees who have received communications and training on anti-corruption, broken down by region** GRI 205-2

Region	Employees	Crop Year 20/21		Crop Year 21/22	
		No.	%	No.	%
MW	Informed	7,295	100	6,979	100
	Trained	1,163	15.94	1,404	20
SE	Informed	2,177	100	2,120	100
	Trained	554	25.45	617	29
<b>Total</b>	Informed	<b>9,472</b>	<b>100</b>	<b>9,099</b>	<b>100</b>
	Trained	<b>1,717</b>	<b>18.13</b>	<b>2,021</b>	<b>22</b>

All governance body members (6 individuals) were informed about our anti-corruption policies and procedures in the 20/21 crop year. In the 21/22 crop year no communication or training on anti-corruption was provided to governance body members.

All business partners (12,256) were informed about our anti-corruption policies and procedures in crop year 20/21. In the 21/22 crop year no communication or training was provided on anti-corruption to business partners. **GRI 205-2**

### Employees who have received communications and training on anti-corruption, broken down by employee category GRI 205-2

Categories	Employees	Crop Year 20/21		Crop Year 21/22	
		No.	%	No.	%
Executives	Informed	21	100	22	100
	Trained	19	90.48	21	95.45
Managers/ Coordinators	Informed	216	100	243	100
	Trained	205	94.91	231	100
Technicians	Informed	421	100	400	100
	Trained	190	45.13	270	67.5
Administrative	Informed	791	100	843	100
	Trained	519	65.61	597	70.94
Operations leads	Informed	770	100	777	100
	Trained	360	46.75	443	57.01
Operational/ Production	Informed	5,667	100	5,177	100
	Trained	299	5.28	293	5.66
Maintenance	Informed	1,586	100	1,637	100
	Trained	125	7.88	166	10.14
<b>Total</b>	Informed	<b>9,472</b>	<b>100</b>	<b>9,099</b>	<b>100</b>
	Trained	<b>1,717</b>	<b>18.18</b>	<b>2,021</b>	<b>22.21</b>



# Social and Economic Compliance

GRI 103-2, 103-3 | 419

Ensuring economic and tax compliance requires integration and collaboration across the Legal, Financial, Tax and Tax Planning departments. Our economic and tax compliance efforts aim to minimize litigation using either a preventive (avoiding penalties) or reactive (annulment of fines and penalties) approach, and to capture opportunities in regulatory developments (reducing the tax burden, identifying tax credits, etc.).

Our tax departments monitor regulatory and case-law developments to ensure the organization maintains the highest levels of compliance and to identify and capture opportunities to improve tax efficiencies. We also benchmark our practices against those of our peers as part of a continuous improvement process.

Our most significant practices in social and economic compliance include:



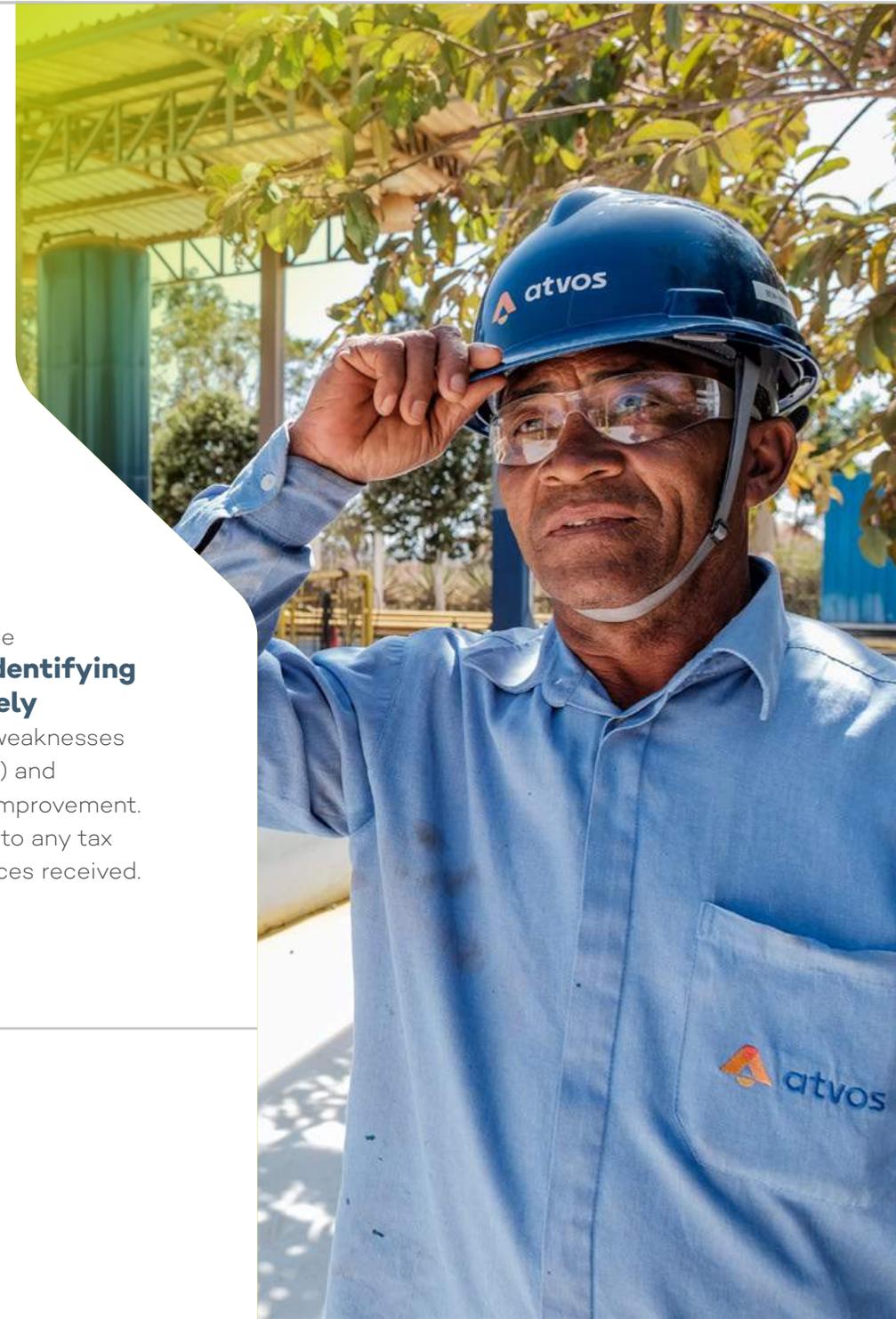
**Operational procedures and manuals** for our different business areas.



**Standard internal procedures** for recognizing tax credits.



Organization-wide engagement in **identifying and immediately reporting** any weaknesses (non-compliance) and suggestions for improvement. This also applies to any tax delinquency notices received.



# Brazilian General Data Protection Regulation (BR GDPR)

After implementing the BR GDPR within the organization, we then focused on training our team members during the crop year. We developed a training program comprising 10 videos about different aspects of the new regulations, and provided more than 1,200 hours of online training to our team members, who access our corporate network on a daily basis. We also organized regular campaigns addressing common GDPR-related dilemmas in the workplace environment.

To raise awareness among our field teams, we provided materials to be posted on bulletin boards and developed content for managers to discuss with their teams during toolbox talks, especially for team members who do not have access to the corporate network. We appointed Data Protection Officers who liaise between our corporate office and local teams to identify and address questions related

to the BR GDPR. We currently have six Data Protection Officers in three of our operations.

More information about our Data Privacy Policy, and a form to report GDPR-related incidents, can be found on our [website](#).

The BR GDPR was discussed during **Toolbox Talks** to train team members who do not have access to our online training assets



## Cybersecurity

During the 2021/2022 crop year we developed a three-year Cybersecurity Program and implemented several initiatives using the **NIST Cybersecurity Network** methodology, an internationally recognized framework for achieving high standards of cybersecurity. We also created a 24/7 Security Operations Center (SOC) that uses artificial intelligence tools to monitor, prevent, detect, investigate and respond to cyber threats.

# Ethics Champions

## GRI 102-17

Toward the end of 2021, we launched a program, called “Ethics Champions”, to disseminate our values of integrity, ethics and transparency. Prior to implementing the program, we conducted a Compliance Culture survey at our corporate offices to identify local needs and frequent questions. We then trained a group of team members to champion our policies, standards and values.

Each site has an Ethics Champion who is available to answer questions about our Code of Conduct, Conflicts of Interest Policy, the due diligence process, and policies on receiving gifts and dealings with government officials. Ethics Champions also lead ethics training and communication initiatives. During the 2022/2023 crop year we set several targets for program participants.

## Ethics Hotline

Our Ethics Hotline receives reports on any conduct that violates our commitment to ethics, integrity and transparency. The Ethics Hotline is managed by a third-party firm, and all investigations are handled impartially and anonymously. The hotline can be reached by calling 0800 721 8434 or at <https://canalconfidencial.com.br/linhadeeticaatvos>.

## Grievance mechanisms GRI 103-2

Grievances	Crop Year 20/21	Crop Year 21/22
Total number of grievances about human rights impacts filed through grievance mechanisms	246	273
Total number of grievances addressed	246	273
Number of grievances resolved	227	272
Number of complaints filed prior to the reporting period that were resolved during the reporting period	50	23



# Risk Management

GRI 102-15

Throughout the 2021/2022 crop year we continued to disseminate a risk management culture within the organization. A Risk Management Matrix, which is periodically reviewed, informs our risk management activities. During the crop year, we created a simplified model for managing strategic risks, which was then communicated to senior management and the Board of Directors to inform decision-making.

Using this matrix, we assess the impact that each risk can have across the financial, environmental, people and reputational dimensions. Action plans to address risks are implemented by the relevant functions, under the oversight of the Risk & Compliance team. Alongside our enterprise Risk Management Matrix, we have a dedicated risk matrix for compliance risks, developed with inputs drawn from a joint initiative led by the Global Compact Network Brazil, of which we are a member.

During the crop year we actively managed 25 risks, including 14 critical risks that were monitored on a quarterly basis by the Compliance Committee. The senior leadership team was kept timely informed of risk mitigation measures taken and their outcomes. The most significant risks in the crop year were:

- **Regulatory developments:** in response to a sharp increase in fuel prices, the Federal Government took measures to minimize impacts at the pump. This created instability due to the risk of ethanol becoming less competitive against gasoline.
- **Macro-economic developments:** due to the war in Ukraine, oil prices remained on an upward trend, causing ethanol prices to increase in tandem. This risk is also affected by other market variables, such as the US dollar and VHP sugar prices.

## Anti-Corruption Best Practice Guide for Agribusiness

Atvos and 16 other agribusiness companies collaborated to develop and launch an Anti-Corruption Best Practice Guide for Agribusiness, a joint anti-corruption initiative led by the UN Global Compact Network Brazil. The Guide was developed during the 2021/2022 crop year and launched in April during a panel that was livestreamed by the Brazilian Ministry of Agriculture and Food Supply (MAPA).

The Guide addresses eight topics selected in a compliance and corruption risk assessment across six segments: citrus, farm inputs, pulp and paper, protein, animal protein, and sugar and ethanol. The Guide is available to download from the [Global Compact website](#).

- **Cybersecurity:** a growing incidence of system intrusions and data breaches across different industries, including agribusiness (to learn more about measures taken to prevent this risk, see page 21).





## Risks involving environmental impacts

### RR-BI-430 a.1

Atvos sources raw material from both its own and third-party sugarcane fields to produce ethanol. Our approach to managing the risk of environmental impacts from sugarcane growing is to monitor cropping practices throughout the sugarcane lifecycle, from soil preparation through planting to harvesting. Among the best practices we employ in sugarcane growing are the following:

- planting sugarcane on land previously disturbed by other agricultural activities, avoiding the need to clear new land;
- mapping out available land with allowance given for protected areas and legal reserves;
- Using soil conservation measures to prevent erosion and avoid losses;
- fertigating part of the sugarcane field as permitted by applicable environmental regulations and in accordance with a Vinasse Application Plan, helping to improve the

physical, chemical and biological properties of the soil, ultimately increasing sugarcane yields;

- using green-cane instead of burnt-cane harvesting;
- taking measures to prevent cane-field fires, such as fire breaks and fire responder teams.

We continued to disseminate a **risk management culture** within the organization throughout the 2021/2022 crop year



# Market Overview **and Strategy**

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# Industry overview

Productivity in the sugar-energy industry dropped in crop year 2021/2022 due to the impact of extreme climate events. According to Unica, the Sugarcane and Bioenergy Industry Association, a total of 523.11 million metric tons of sugarcane were crushed in the year, a 13.6% drop compared to crop year 2020/2021.

Accumulated ethanol production was 27.55 billion liters, with a 12.57% increase in anhydrous ethanol production, which reached 10.91 billion liters, and a 19.55% drop in hydrous ethanol output, which totaled 16.64 billion liters. Sugar output was 32.06 million metric tons, a 16.64% drop.

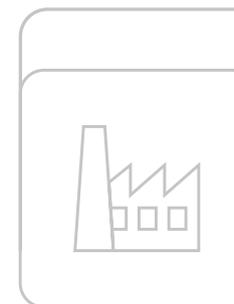
The war in the Ukraine impacted commodity prices such as crude oil worldwide, and created the risk of a fertilizer shortage. Farmers responded by increasing the use of byproducts such as vinasse and filter cake, which are more sustainable and less costly options to increase output.

Regarding cogeneration of clean electricity from sugarcane biomass, according to Unica, in January 2022 Brasil had 12,021 MW in installed capacity across 413 thermal power plants burning bagasse and straw as their main fuel. Prices fluctuated in some parts of the country due to drought this year, and the fear of a supply shortage by hydro power plants.

Regarding decarbonization credits or CBIOS, RenovaBio had an inventory of 10 million units at the end of 2021, which is the sum of all credits validated on the platform in the year and still in circulation in 2020. According to the ANP, Brazil's Crude Oil, Natural Gas, and Biofuels Agency, 24,405,193 CBIOS were removed from circulation (retired) in 2021, equivalent to 96.8% of the total individual targets assigned to the distributors by the regulator, and 98.2% of the overall target set by the CNPE, the National Energy Policy Board, for the year.



In light of this, Atvos switched its product mix to anhydrous ethanol and VHP sugar for crop year 2021/2022, while remaining one of Brazil's largest issuers of CBIOS.



# Cultivating **the future**

During crop year 2021/2022 Atvos prepared the basis for its future growth. We launched our 5-year Agricultural Master Plan and our Business Plan, both focused on four strategic themes: Agricultural Productivity, Cost Efficiency, Organizational Alignment and Business Sustainability.

The plans have already been approved by the Board of Directors and focus primarily on improving the quality of our field output and increasing the utilization of our crushing capacity, aiming at profitability. We want to develop the bases required from the point of view of safety, governance, and management to do what we do best: produce clean and sustainable energy with excellence, strengthening company management.

As part of this process to build the future we created Avante Atvos [Onwards Atvos], which mobilizes the entire company. Meanwhile, we continue to develop Cubo, our field productivity project. This initiative is led by our *Chief Transformation Officer* (CTO), who reports directly to the CEO and to the Avante Project Committee, comprised of members of the Board of Directors and of the Executive Board. Learn more below



## Avante Atvos

The Avante Atvos project involves the entire company in the business strategy going forward, and identifies opportunities for growth and increased competitiveness. We retained the support of a consulting firm specialized in project implementation, who helped us size our ambition and prioritize potential opportunities for Atvos to create value. Employees at all functional levels were heard in a series of ideation workshops, and all may contribute new ideas to capture value at any time via one of the program's communication channels.

Avante is comprised of 18 Work Fronts in different areas. Each of them has a Sponsor who approves the decisions and is responsible for the group's performance, a leader who leads the activities, and Initiative Owners, responsible for execution.

We have mapped the initiatives **that drive our growth**

The transformation office supports the leaders in all steps of the process, from developing the *business case* through planning and execution. The Finance area approves the investments required and validates the savings/gains.

So far, Avante has mapped 500 initiatives, most of them within the Agricultural front, followed by the Industrial and Supply fronts. Program design started in January 2021 and became operational early in crop year 2022/2023. It is gaining force and working not only on capturing value, but also in directing the company's culture, operating efficiency, and sustainable development.

# Cubo

The Cubo project is an Atvos initiative that uses technology to improve field processes and productivity. In crop year 2021/2022 it was extended to another six operating units. This initiative consists of 24x7 remote crop monitoring and control. This monitoring enables identifying and correcting any failure that could impact the company's productivity.

Cubo overcame challenges during the pandemic. Monitoring, normally centralized in Campinas (SP), has now been adapted to remote working. We also adjusted equipment use capabilities to the virtual model. Such adjustments did not impact the project, which continues generating results. We were able to monitor our fleet of 31 harvesters and 84 infield transporters, reducing harvesting and transportation down-time.

In addition to monitoring harvests, we expect to apply Cubo technology to planting, with our Plant+ project that will monitor more

than 200 pieces of equipment used for soil preparation and planting, including tractors, seedling harvesters, infield transporters and planters, seeking to increase our operational yield and ensure planting is done in the correct window.



## The Cubo Project covers all our units to monitor harvesting activities





Our ESG strategy is related to the **UN SDGs**

# ESG Strategy

During crop year 2021/2022 our scenario analysis evolved, resulting in a list of risks and opportunities used to guide target setting. As part of the company's transformation we mapped all of the environmental, social, and governance initiatives to set ESG targets and develop a more structured ESG practice.

This map identified 94 initiatives in 11 business areas, ranging from strategic measures through tactical and operational activities. We analyzed the market and defined preliminary targets according to Atvos' strategic and investment plans. These were submitted to the Board of Directors for approval in crop year 2022/2023.

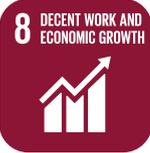
We constantly update our Sustainability Policy, created in 2018. It was last reviewed in 2020, and a new one is scheduled for the second half of 2022. Changes include reinforcing the governance model, including guidelines on human rights and biodiversity covering our ESG indicators, and improving company activities that generate indirect economic impact.

Meanwhile, our sustainability, diversity, community development, ethics, and integrity activities continue. Below is a list of our main Sustainable Development Goal initiatives:

We mapped **94 Atvos initiatives** in the environmental, social, and governance areas. The next step is to set targets

## Sustainable **Development Goals**

SDG	Targets	Our contribution
 <p><b>4</b> QUALITY EDUCATION</p>	<p><b>4.4</b> By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.</p>	<p>The MOVA community movement centralizes community-related training, focusing on critical Atvos needs. Some of those trained are hired by the company.</p>
 <p><b>5</b> GENDER EQUALITY</p>	<p><b>5.5</b> Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.</p> <p><b>5.c</b> Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.</p>	<p>We have a Diversity and Inclusion Policy and subscribe to WEP [Women Empowerment Principles], and to the UN Global Compact.</p> <p>Women represent 15.97% of our workforce, more than the average of 9.2% in our industry.</p> <p>Among the lines of action of the MOVA Community Movement is training women to take over operational positions at Atvos. We also continue to map and mentor employees to take on leadership positions in future.</p>
 <p><b>6</b> CLEAN WATER AND SANITATION</p>	<p><b>6.3</b> By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.</p> <p><b>6.4</b> By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.</p> <p><b>6.6</b> By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.</p>	<p>Using a closed and automated system to recover excess, the Conquista do Pontal unit reduced its water use in crop years 2019 and 2020 by some 1.794 million liters.</p> <p>In Perolândia (GO), we joined forces with the Federal University of Goiás and local farmers to recover an area that includes 11 springs. In Deodápolis (MS) we are providing saplings to recover the Ivinhema River headwaters.</p>
 <p><b>7</b> AFFORDABLE AND CLEAN ENERGY</p>	<p><b>7.2</b> By 2030, increase substantially the share of renewable energy in the global energy mix.</p> <p><b>7.3</b> By 2030, double the global rate of improvement in energy efficiency.</p>	<p>In crop year 2021/2022: 1.67 billion liters of ethanol produced; 1,550 GWh of electricity cogenerated from biomass.</p> <p>All our agro-industrial units are Renovabio certified, which means we are able to issue decarbonization credits (CBIOs). Each CBIO issued means one less ton of carbon emitted to the atmosphere.</p> <p>Our mills have Green Energy certification awarded by the Brazilian Sugarcane Industry Association (UNICA).</p>

SDG	Targets	Our contribution
	<p><b>8.5</b> By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.</p> <p><b>8.7</b> Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms.</p> <p><b>8.8</b> Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.</p>	<p>We support approximately 9,000 direct jobs and 27,000 indirect jobs. Employees and contractors receive training on our Code of Conduct.</p> <p>Suppliers undergo desktop due diligence on Legal, Tax, Compliance, Sustainability and Technical aspects.</p> <p>Within our <i>Parceiros Mais Fortes</i> (“Stronger Partners”) program, 100% of participating farmers have joined us in our Commitment for a Sustainable Sugarcane Value Chain.</p>
	<p><b>13.2</b> Integrate climate change measures into national policies, strategies and planning.</p> <p><b>13.3</b> Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.</p>	<p>In 2019 we joined a São Paulo State Government initiative that calls on companies to adopt enterprise strategies to mitigate greenhouse gas emissions.</p> <p>All our plants are certified by RenovaBio, the National Biofuels Policy.</p>
	<p><b>15.1</b> By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.</p> <p><b>15.2</b> By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.</p>	<p>Our harvest is fully mechanized, and we have numerous measures to avoid fires.</p> <p>We are planting 300,000 saplings around Mirante do Paranapanema (SP), in a partnership with IPE, the Institute for Ecological Research. The idea is to link forest sections and create an Atlantic Forest corridor.</p>
	<p><b>16.5</b> Substantially reduce corruption and bribery in all their forms.</p>	<p>We helped draft the Anticorruption Best Practices in Agroindustry Guide, developed by the Brazil Network of the Global Compact. We trained our team and drafted primers on ethical behavior and best practices in anti-corruption.</p>



# Business performance

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# Environmental performance

GRI 103-2, 103-3 | 307

We use a circular-economy model in our field and mill operations, in which byproducts are used as inputs within the value chain. Our operations are compliant with applicable environmental regulations and the legal requirements and covenants contained in our environmental licenses. We use a management system to monitor compliance with our licenses, permits and other environmental requirements applicable to our mills. The system assists us in overall compliance, license and permit renewal, and environmental control. Environmental assessments are carried out based on analytics and reports.

In the 2021/2022 crop year Atvos received eight fines for alleged environmental violations. Most of these fines were for failure to submit reports on compliance with Environmental Rehabilitation Commitments (*Termo de Compromisso de Recuperação Ambiental – TCRA*) demanded by the environmental regulator. Our operations are working with the environmental regulator to adjust the commitment obligations and submit the required reports.

In addition, our Conquista do Pontal operation signed an agreement to convert six fines for alleged vegetation damage caused by fire outbreaks on our Atalaia and Barro Preto farms. These agreements are being fully complied with.

## Significant fines and non-monetary sanctions for non-compliance with environmental laws and/or regulations (R\$) GRI 307-1

	Crop Year 20/21	Crop Year 21/22
Monetary value of significant fines paid in the period	618,529.00	554,790.00
Monetary value of significant fines imposed in the period, whether or not appealable	1,890,677.43	59,180.00
<b>Total</b>	<b>2,509,206.43</b>	<b>613,970.00</b>



# Biodiversity

GRI 103-2, 103-3 | 304

Our harvesting operations are 100% mechanized; burnt-cane harvesting is not allowed in order to prevent fires and help to preserve native vegetation and wildlife. Our fire prevention practices include: using digital laser thermometers to measure harvester temperature; avoiding harvesting operations in dry and hot weather; and having tank trucks on standby at harvesting fronts and other strategic locations. If a fire outbreak occurs despite these precautions, we have a fleet of almost 170 vehicles and more than 1,285 emergency responders, firefighters and rescuers on call.

All of our mills are members of the Mutual Emergency Response Plan (PAME)— a group of private companies, governments and communities that work together in joint emergency response operations. In Nova Alvorada do Sul (MS), our Santa Luzia operation and other members of the Vale do Vacaria PAME received a tribute from the City Council for their fire response efforts in the region.

## It is Atvos's policy **not to use** burnt-cane harvesting in our sugarcane operations

Our sugarcane fields and our downstream ethanol production operations have been sited on land previously used for pasture or other crops, avoiding adverse impacts on existing biodiversity. We continuously monitor the flora and fauna in protected areas, legal reserves and headwater areas within our properties, and regularly organize campaigns to raise awareness among employees and surrounding communities about protecting species by avoiding roadkill, combating poaching and preserving biodiversity. **GRI 304-2**



**100% of our harvesting operations are mechanized**





# We work to **reforest** and support natural forest regeneration in protected areas

Across our Rural Environmental Registry (CAR)-listed properties, partner properties and sugarcane supplier properties, we have a total of 207,414 hectares of protected areas and legal reserves under management, in addition to 15,848.7 hectares delimited as protected or rehabilitated areas to maintain biodiversity within the area of influence of our mills.

**GRI 304-1**

The designations of our protected or rehabilitated areas are as follows: Fazenda Primavera, at Água Emendada (GO); Invernadinha, at Morro Vermelho (GO); HGW and Granada at Alto Taquari (MT); and Estrela, América, Ponto Alegre, Santa Lúcia, Alcídia, Conquista, Asa Branca, Conquista do Pontal and Três Fronteiras, at Conquista do Pontal (SP). These areas have a total size of 5.07 km<sup>2</sup> and are all located in protected areas or legal reserves.

**GRI 304-3**

Reforested or enrichment-planted areas are under development and are being monitored. On some farms supplying sugarcane to our Conquista do Pontal operation, these areas have been certified by Companhia Ambiental do Estado de São Paulo (CETESB). Reforestation and enrichment planting are carried out by specialized third-party firms. The protected areas listed above are under development and are being maintained. The methods used include reforestation, enrichment planting and natural regeneration.



Atvos has **protected areas and legal reserves** that are either being protected or restored to conserve biodiversity

We are among the **leading issuers** of decarbonization credits in the Brazilian sugar and energy industry



# Emissions management

GRI 103-2, 103-3 | 305

We are among the leading issuers of decarbonization credits in the Brazilian sugar and energy industry, via the Federal Government's RenovaBio program. Our operations were certified within the program in 2020, and the certification was renewed in the 2021/2022 crop year. Our Environmental-Energy Efficiency Score (NEEA) improved by 4.39% in the interim, going from 59.12 gCO<sub>2</sub>eq/MJ under our first certificate to 61.68 gCO<sub>2</sub>eq/MJ under the current one, compared to an industry average of 59.67 gCO<sub>2</sub>eq/MJ.

Three of our operations (Rio Claro, Conquista do Pontal and Eldorado) are also certified by the U.S Environmental Protection Agency (EPA). We dedicate effort and investment to maintaining and managing these certifications, and to improving our emissions management and decarbonization targets.

We have inventoried our greenhouse gas (GHG) emissions since 2012. With the full-scale implementation of RenovaBio in 2020, the program is now integrated with our own management systems. We calculate emissions metrics by operation using the RenovaBio framework. These metrics are reported on a monthly basis to our corporate team, which then reviews and discusses them extensively across our operations.

Due to the nature of our business, we capture CO<sub>2</sub> from the atmosphere through land-use changes, and help to avoid GHG emissions by replacing fossil fuels with ethanol. In addition, in crop year 2021/2022 we helped to avoid 5.14 million tCO<sub>2</sub> equivalent of emissions through the use of the ethanol we produce and the surplus electricity we export.

### Direct greenhouse gas emissions (thousand t CO<sub>2</sub> equivalent)<sup>2</sup> GRI 305-1

	Crop Year 21/22
Generation of electricity, heat or steam <sup>1</sup>	91.69
Physical-chemical processing <sup>1</sup>	455.44
Fugitive Emissions <sup>1</sup>	1.09
Total gross CO <sub>2</sub> emissions	548.226

<sup>1</sup> In the previous crop years, total gross scope 1 emissions were respectively 577,870 and 523,480 t CO<sub>2</sub> (equivalent). Emissions data by category within this scope are not available for reference.

<sup>2</sup> Gases accounted for: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, NF<sub>3</sub>.

### Scope 1 biogenic CO<sub>2</sub> emissions (thousand t CO<sub>2</sub> equivalent) GRI 305-1

	Crop Year 19/20 <sup>1</sup>	Crop Year 20/21 <sup>1</sup>	Crop Year 21/22
Biogenic CO <sub>2</sub> emissions (thousand t CO <sub>2</sub> equivalent)	5,582.90	5,245.58	4,579.56
Biogenic CO <sub>2</sub> sequestration - land-use changes (thousand t CO <sub>2</sub> equivalent)	1,482.40	1,482.41	1,462.76

### Energy indirect GHG emissions<sup>2</sup> (thousand t CO<sub>2</sub> equivalent)

	Crop Year 19/20 <sup>1</sup>	Crop Year 20/21 <sup>1</sup>	Crop Year 21/22
	2.16	2.07	1.63

<sup>1</sup> GHG Protocol. National emission factor for inventories published by EPE (Empresa de Pesquisa Energética). Consolidation approach: Operational Control.

<sup>2</sup> Gases accounted for: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O

### Other indirect GHG emissions<sup>2</sup> (thousand t CO<sub>2</sub> equivalent) GRI 305-3

	Crop Year 19/20	Crop Year 20/21 <sup>1</sup>	Crop Year 21/22
Total	92.57	88.62	38.92

<sup>1</sup> GHG Protocol. Emissions factors determined by professors Isaias Macedo and Joaquim Seabra at UNICAMP using IPCC methodology. GWP - AR4.

<sup>2</sup> Gases accounted for: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O

### Scope 3 Biogenic CO<sub>2</sub> emissions<sup>2</sup> (t CO<sub>2</sub> equivalent) GRI 305-3

	Crop Year 19/20 <sup>1</sup>	Crop Year 20/21 <sup>1</sup>	Crop Year 21/22
	10.97	11.17	20.29

<sup>1</sup> GHG Protocol. Emissions factors determined by professors Isaias Macedo and Joaquim Seabra at UNICAMP using IPCC methodology. GWP - AR4.

<sup>2</sup> Gases accounted for: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O

### Greenhouse gas emissions intensity GRI 305-4

	Crop Year 20/21	Crop Year 21/22
Total GHG emissions	672,000.00	939,073.95
Greenhouse gas emissions intensity	25.7	0



**We have inventoried**  
our greenhouse gas  
emissions since 2012



## Partnership to neutralize emissions from Mitsubishi Rallies

Atvos and *Mitsubishi Motors* created a partnership to offset the greenhouse gas (GHG) emissions from the 2021 and 2022 *Mitsubishi Rally* seasons. Inventories of direct and indirect emissions were compiled by the *British Standards Institution* – BSI Brasil across approximately 50 different events.

We neutralized an estimated 564 metric tons of CO<sub>2</sub>—roughly 282 metric tons in each season—the equivalent of planting 78,928 trees. To formalize the partnership, we created a MIT4Zero logo that was incorporated as part of the competition’s visual identity to indicate that emissions were being neutralized.

# Energy consumption

GRI 103-2, 103-3 | 302, 302-1, 302-2

The primary energy indicators for our mills are electric power generated, consumed and exported by cogeneration facilities. These indicators are tracked on a daily basis through production reports, including production logs, field and mill logs, and operations logs. Electricity consumed in the production of ethanol and sugar and electricity exports to the grid are included in variable compensation targets for team members working at our mills.

Electricity exported to the grid (kWh/tc) decreased by 3% compared to the previous crop year. Electricity consumption at our mills (Kwh), in turn, rose by 8%.

## Electricity consumption (GJ) GRI 302-1

Consumption of nonrenewable fuels	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22
Diesel	1,720,778	1,519,200	1,440,617
<b>Fuel combustion – renewable</b>			
Sugarcane bagasse	66,183,125	64,457,185	54,479,414
Biodiesel	187,119	164,395	156,002
Ethanol	57,041	50,198	49,918
<b>Total electricity generated from burning fuel</b>	<b>68,148,063</b>	<b>66,190,978</b>	<b>56,125,950</b>
<b>Percentage of electricity generated from burning renewable fuels</b>	<b>97%</b>	<b>98%</b>	<b>97%</b>



### Energy consumed (GJ) GRI 302-1

	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22
Electricity	76,519	81,424	88,035

### Energy sold (GJ) GRI 302-1

	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22
Electricity	6,844,476	7,115,105	5,812,889

### Total energy consumed (GJ) GRI 302-1

	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22
Nonrenewable fuels	1,720,778	1,519,200	1,440,617
Renewable fuels	66,427,285	64,671,778	54,685,334
Electricity consumed	76,519	81,424	88,035
Electricity sold	6,844,476	7,115,105	5,812,889
<b>Total</b>	<b>61,380,106</b>	<b>59,157,297</b>	<b>50,401,096</b>

### Energy intensity GRI 302-3

	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22
Within the organization	2.28	2.22	2.24
<b>Total</b>	<b>2.28</b>	<b>2.22</b>	<b>2.24</b>

### Reductions in energy consumption achieved as a direct result of conservation and efficiency initiatives (GJ) GRI 302-4

	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22
Process Optimization	66,183,125	64,457,185	54,479,414



## UDOP/Embrapa Good Environmental Practices Award

Our environmental practices have earned us recognition from the market. In 2021 our Conquista do Pontal operation received a UDOP/Embrapa Good Environmental Practices Award in the “Water Management” and “Industrial Energy Efficiency” categories.

The award in the first category was for a project to optimize the use of condensate in the sugar and ethanol production process. This project consisted of three fronts: implementing closed-loop water recirculation in the evaporation process, optimizing the condensate cooling automation system using artificial intelligence, and recovering surplus water from the sugar production water tower.

The mill was able to achieve water savings of approximately 1.794 million liters in crop year 2019/2020, the equivalent of 1 year and 3 months’ worth of water supply to the city of Mirante do Paranapanema (SP).

The award in the “Energy Efficiency” category went to a project to implement Industry 4.0 technology in our Conquista do Pontal operation. Through advanced production planning, the project increased the amount of power generated from the same amount of steam, generating a return on investment of R\$ 2.6 million in the crop year. These projects are now being replicated at other sites.

# Water withdrawal and consumption

GRI 103-2, 103-3 | 303, 303-1, 303-2

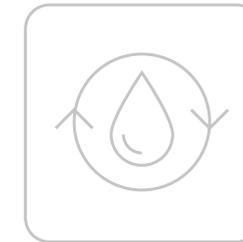
Our operations withdraw surface and ground-water under appropriate permits issued by the relevant environmental regulator. All water withdrawals are consumed in the ethanol production process, and a portion is used for irrigation and for human consumption.

The effluent from the process is not discharged into water bodies but is instead used for cane-field fertigation to improve yields. Because no wastewater is discharged into water bodies and the volume of water withdrawals is small compared to discharge rates at water withdrawal locations, there are no significant impacts from water use.

In addition, all operations have steam boilers with semi-closed-loop water cooling circuits (cooling towers) and on-site wastewater

treatment plants. At our vehicle repair shops, water is treated for reuse in washing applications. Oil and sand are separated out and the water is chemically treated before being stored for subsequent reuse. Only fugitive water losses are replenished, with the remainder being kept within a close-loop system.

We have water targets set that are consistent with the permit limits for industrial, agricultural and human-consumption water withdrawals. Water consumption targets and indicators are tracked on the basis of water consumption per metric ton of sugarcane crush. In addition to water consumption metrics, we also monitor the use of production byproducts (fertigation with vinasse and wastewater) against set targets.



## Total volume of water withdrawal across all areas and in areas with water stress, by source (ML)<sup>1</sup>

GRI 303-3

Source	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22
Surface water (Total)	34,117	36,153	23,909
Groundwater (Total)	270	66	214
<b>Total</b>	<b>34,387</b>	<b>36,219</b>	<b>24,123</b>

<sup>1</sup> There are no water withdrawals by suppliers with significant associated impacts (µL).

Water **withdrawals decreased by 33.4%** compared to the previous crop year.



# Waste management

GRI 103-2, 103-3 | 306, 306-2, 306-3, 306-4, 306-5

All waste materials generated in our operations are appropriately segregated, labeled, sorted by type, quantified and stored at waste depots. We have a Waste Management Plan (WMS) that outlines waste management practices including waste minimization, separation, storage, identification, collection, transportation, treatment and final disposal by licensed companies specializing in each type of material.

Waste management is handled by each operation's Environmental department in accordance with the WMS and applicable legal requirements. Only the transportation and final disposal stages are outsourced to suppliers, which have a contractual obligation to comply with legal requirements.

Waste management is monitored in accordance with ABNT NBR-10.004, with all waste materials identified as they are produced. Waste materials are stored in accordance with NBR-11174/90 (class II waste) and NBR-12235/92 (class I waste), ensuring the right procedures are used for temporary storage and final disposal.

We track total waste and contaminated waste (class I) metrics with a focus on reducing waste production and using best practices. Other waste management practices include the use of reverse logistics, issuing waste waybills for disposal, and monitoring third-party companies handling transportation and treatment, including their qualifications and required documentation.



All waste materials at Atvos are **compliantly disposed of**



## Total waste generated by composition (t)<sup>1</sup> GRI 306-3

Crop Year 21/22

### Hazardous Waste

Waste contaminated with oil and grease	61.05
Used lubricants	331.28
Automotive batteries	67.42
Light bulbs	3.94
Medical waste	0.67
Electronic waste	2.40

**Subtotal – Hazardous Waste 466.75**

### Non-hazardous Waste

Plastic	194.37
Paper/Cardboard	81.91
Scrap metal	3484.57
IBCs (1,000 l containers)	10.16
Big bags	174.61
Non-recyclable waste	435.10
Wood	137.58
Organic waste	25.47
Empty pesticide containers	46.25
Scrap tires	271.79

**Subtotal – Non-Hazardous Waste 4927.41**

**Total 5394.16**

## Hazardous waste disposal (t)<sup>1</sup> GRI 306-5

### Co-processing

Waste contaminated with oil and grease	61.05
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### Co-processing/re-refining

Used lubricants	331.28
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### Reverse logistics or waste-specific treatment

Automotive batteries	67.42
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### Decontamination

Light bulbs	3.937
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### Incineration/blasting<sup>2</sup>

Medical waste	0.668
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### Recycling/reconditioning

Electronic waste	2.4
------------------	-----

**Total Hazardous 466.75**

<sup>1</sup> All waste disposal operations are outside the organization (including waste diverted from disposal).

<sup>2</sup> Incineration and blasting are disposal operations.

## Nonhazardous waste disposal (t)<sup>1</sup>

### Recycling

Plastic	168.9
Paper/Cardboard	81.91
Scrap metal	3484.57
IBCs (1,000 l containers)	10.16
Big bags	174.61

### Co-processing

Non-recyclable waste	435.1
Wood	88.78
Plastic	91.07
Organic waste	25.47

### Incineration<sup>2</sup>

Wood	48.8
------	------

### Reverse logistics

Empty pesticide containers	46.25
Scrap tires	271.79

**Total Non-hazardous 4927.41**

**Total waste volumes 4927.41**

<sup>1</sup> All waste disposal operations are outside the organization (including waste diverted from disposal).

<sup>2</sup> Incineration and blasting are disposal operations.

<sup>1</sup> Information is only available on a consolidated basis; waste breakdowns by item are not available for previous years. Total hazardous waste was 716 metric tons in the 19/20 crop year, compared to 489 metric tons in the 20/21 crop year. Non-hazardous waste was 4,139 metric tons in the 19/20 crop year, compared to 4,504 metric tons in the 20/21 crop year.

# Materials management

GRI 103-2, 103-3 | 301

Adequately managing material sourcing and inventories is critical for the continuity of our field and mill operations. Material requirements at our mills are reported on a weekly basis through production orders. The primary variable we manage is the cost in reais per metric ton of processed sugarcane. Materials costs are tracked in two-weekly cost meetings, and on a daily basis by each operation and process engineers.

Material inventories and sourcing are constantly monitored to **ensure high levels of operational continuity and efficiency**

## Materials used in end products (t) GRI 301-1

Name of material	Renewable/Non-renewable	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22
<b>Sugarcane</b>				
Company-farmed sugarcane processed	Renewable	16,477,727	15,475,646	12,637,750
Partner sugarcane processed	Renewable	10,392,110	11,211,157	9,851,843
<b>Subtotal</b>		<b>26,869,837</b>	<b>26,686,803</b>	<b>22,489,518</b>
<b>Agricultural inputs</b>				
Soil amendments	Non-renewable	324,858	230,765	377,635
Pesticides	Non-renewable	201	160	296
Fungicides	Non-renewable	15	3	6
Herbicides	Non-renewable	3,757	2,773	3,112
Fertilizers	Non-renewable	96,209	90,106	101,086
Other organic fertilizers	Renewable	1,141	560,111	379,763
<b>Subtotal</b>		<b>426,181</b>	<b>883,918</b>	<b>482,515</b>
<b>Mill inputs</b>				
Lime	Non-renewable	8,361	8,683	4,932
Sulfuric acid	Non-renewable	9,817	10,195	7,139
Hydrochloric acid	Non-renewable	252	262	188
Caustic soda	Non-renewable	779	809	1,836
Antibiotics	Non-renewable	15	16	453
Inorganic chemicals	Non-renewable	648	673	872
Organic chemicals	Non-renewable	574	596	784
<b>Subtotal</b>		<b>20,447</b>	<b>21,234</b>	<b>16,204</b>
Diesel	Non-renewable	40,257	31,641	30,004
Ethanol	Renewable	2,109	1,856	3,683
Biodiesel	Renewable	-	3,882	1,846
<b>Subtotal</b>		<b>42,366</b>	<b>37,379</b>	<b>35,533</b>
<b>Total</b>		<b>27,358,830</b>	<b>27,629,334</b>	<b>23,023,770</b>
<b>Total non-renewable materials</b>		<b>26,871,946</b>	<b>26,692,540</b>	<b>23,018,241</b>
<b>Total renewable materials</b>		<b>486,884</b>	<b>936,152</b>	<b>5,529</b>

# Cane-field performance



During the 2021/2022 crop year our focus was on improving the performance of our field operations. With renewed investment capacity, we directed funding to improvements in both our sugarcane and mill operations. We also launched an Agricultural Master Plan that lays out a roadmap for achieving improved crop yields and sustainability over the next five years.

In the first year of the Plan, our main investments were in renewing our machinery fleets and expanding our sugarcane fields. We expanded our crop care operations to improve crop development and increase densities. Our company-owned sugarcane fields expanded to 39,800 hectares in the 2021/2022 crop year, nearly double the area in the previous crop year.

We also purchased new equipment to scale up the use of vinasse for fertigation. This enabled us to expand the amount of area fertigated with vinasse by 10,000 hectares. The use of filter cake as fertilizer also increased substantially in the year, helping to improve soil fertility.

To expand our property portfolio, we conducted a profitability study that will be followed by expansion or improvement initiatives. We also identified areas requiring accelerated replanting, and recruited support from suppliers to increase our planting capacity. More than quantity, our focus is on plantation quality. Atvos's Agricultural Master Plan lays out a blueprint for improving yields per hectare to accommodate our mills' crush capacity.

Adverse weather affected sugarcane production in the 2021/2022 crop year. Our South Cluster operations, in particular, suffered from a number of adverse events, such as frost and droughts. We responded effectively to recover from the lost yields within a short space of time. In addition, the geographic distribution of our operations across four Brazilian states has helped to mitigate local climate effects on overall performance.

In terms of machinery, we expanded investments in equipment maintenance, increasing harvester availability to 85.8% and tractor availability to 84.9%. In addition, harvester elevator hours grew substantially from 9:38 to 10:49 in the crop year. For more information about our deployment of technology to improve yields, see the section about our Cubo initiative under Market Overview and Strategy, page 28.

**482,945**  
hectares  
farmed



## Field and mill indicators

**8.3 TSH**

(metric tons of sugar per hectare)

**135.5 TRS**

(Total Recoverable Sugar) - Average

**52.8 TCH**

(metric tons of cane per hectare) - own farms

**68.8 TCH**

(metric tons of cane per hectare) - contract farms

## Agricultural Performance

**562 metric tons**

of sugarcane harvested per machine per day

Harvester elevator hours increased to

**10:49:00**

from 9:38

Harvester availability was

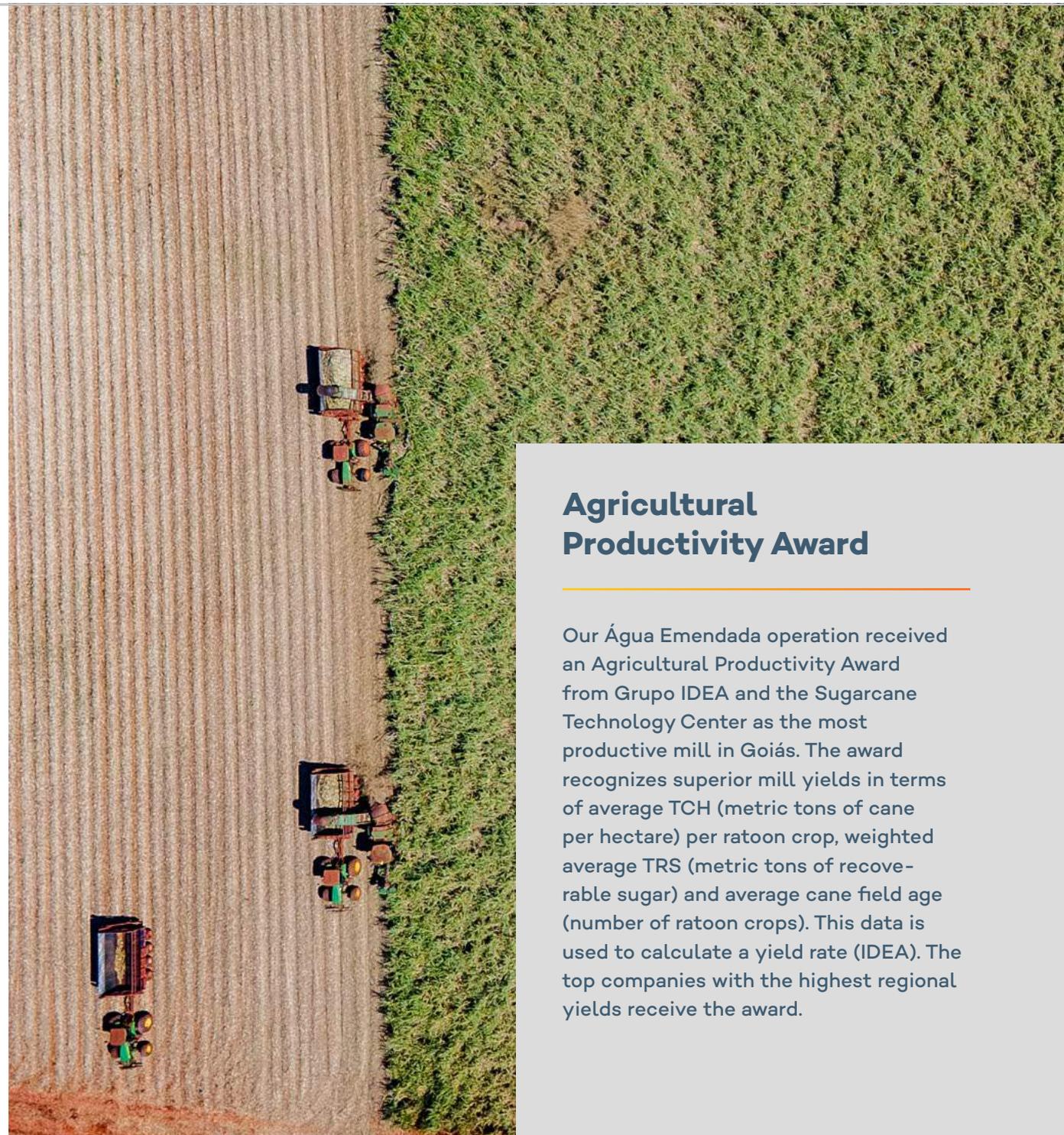
**85.8%**

(vs. 83.2% in the previous crop year)

Tractor availability was

**84.9%**

(vs. 83.9%)



## Agricultural Productivity Award

Our Água Emendada operation received an Agricultural Productivity Award from Grupo IDEA and the Sugarcane Technology Center as the most productive mill in Goiás. The award recognizes superior mill yields in terms of average TCH (metric tons of cane per hectare) per ratoon crop, weighted average TRS (metric tons of recoverable sugar) and average cane field age (number of ratoon crops). This data is used to calculate a yield rate (IDEA). The top companies with the highest regional yields receive the award.



## Sustainability in the field

In the 2021/2022 crop year we continued to use best practices in sustainability to further minimize environmental impacts while improving yields and productivity. Below are some of our key agricultural practices:

**40,000 hectares** of soybean fallow crops

**12,200 metric tons** of filter cake used

**76,400 hectares** fertigated with vinasse



**Applying ripeners** using drones in targeted areas on some farms, significantly improving effectiveness and precision. This technique has helped to reduce the amount of ripener applied, minimizing environmental impacts.



**Using vinasse, filter cake and organomineral fertilizers** in replacement of chemical fertilizers.



**Soybean fallow crops** help to replenish soil fertility and improve yields.



**Biological pest control** in replacement of pesticides. For example, we use *Cotesia flavipes* wasps—which are parasitic on sugarcane borers—throughout the year and especially during the dry season for improved efficiency.

# Mill performance

Under our Agricultural Master Plan for the next five years, we aim to improve sugarcane field performance to better utilize our installed crush capacity. Assessments carried out during the crop year provided a better understanding of local challenges, allowing us to design targeted strategies.

Weather impacts on sugarcane yields affected our mill performance during the 2021/2022 crop year, with both crush and production volumes underperforming crop year 2020/2021. However, we implemented measures to offset these effects, with the result that they had no measurable impact on our economic and financial performance.

We scaled up production of anhydrous ethanol as hydrous ethanol became less competitive against gasoline. We also met our sugar supply obligations under sales agreements concluded at the beginning of the crop year, despite the weather impacts on yields.

In relation to biomass, the 2021/2022 crop year was marked by shortages and price volatility. We were able to mitigate losses through more efficient sales and by capturing opportunities in the futures markets.

## Mill efficiency

**97.0%** extraction efficiency

**89.7%** plant availability

**89.7%** Overall Distillery Yield

## Process innovation

Our Conquista do Pontal mill, in Mirante do Paranapanema (SP), has become a benchmark in the industry for its industrial automation systems, and has developed best practices that can be replicated at other plants. Examples of these practices include the use of artificial intelligence to control steam flow through the turbines, and the use of unique materials to prevent wear. Industry 4.0 technologies help to cut maintenance costs and the need for human intervention in some processes.

In addition to production improvements, these best practices have also been shown to generate environmental benefits. Learn more about the UDOP/Embrapa Good Environmental Practices Award on page 40.



# Economic and financial performance

GRI 103-2, 103-3 | 201

In 2021/2022 we enjoyed one of our best financial years to date on the back of favorable macroeconomic conditions in both the domestic and foreign markets. Net revenue was R\$ 6.87 billion, up 35% on crop year 2020/2021; adjusted EBITDA was R\$ 2.2 billion, increasing by R\$ 84%; and cash generation was up 55% at R\$ 1.34 billion.

We also invested in key areas for our sustainable business growth throughout the crop year. To this end, we created an Investment Committee responsible for overseeing the funding and execution of projects and initiatives.

No financial assistance was received from the government during the crop year. **GRI 201-4**

We created an **Investment Committee** to oversee the funding and execution of projects and initiatives

## Direct economic value generated and distributed (thousands of R\$)

GRI 201-1

Economic value generated	Crop Year 19/20 <sup>2</sup>	Crop Year 20/21 <sup>2</sup>	Crop Year 21/22 <sup>1</sup>
Sales of goods, products and services	5,229,161	5,771,563	7,482,934
Inputs purchased from third parties	(2,074,512)	(2,058,281)	2,340,175
<b>Gross added value</b>	<b>3,154,649</b>	<b>3,713,281</b>	<b>5,142,759</b>
Depreciation, amortization and depletion	(1,850,624)	1,637,890	2,189,581
<b>Net added value</b>	<b>1,304,024</b>	<b>2,075,391</b>	<b>2,953,177</b>
Transferred added value	94,463	747,101	194,867
<b>Added value to be distributed</b>	<b>1,398,487</b>	<b>2,822,493</b>	<b>3,148,045</b>
<b>Economic value distributed</b>			
Payroll and related charges	811,793	827,978	900,863
Government and society (taxes, charges and contributions)	828,408	690,767	732,665
Assignment of tax losses (federal taxes)	(16,422)	-	-
Creditors (interest and rent)	1,611,630	1,546,566	1,528,143
Income (loss) for the year	(1,836,922)	(242,819)	13,626
<b>Total economic value distributed</b>	<b>1,398,487</b>	<b>2,822,493</b>	<b>3,148,045</b>

<sup>1</sup> Although this report is mostly related to Atvos Bioenergia, the information reported in this table refers specifically to Atvos S.A. for comparability with the economic and financial information disclosed in previous reports.

<sup>2</sup> Totals have been restated following an audit during the current fiscal period. **GRI 102-48**



# Value-based relationships

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# Team Members

GRI 102-8

During crop year 2021/2022 Atvos developed significant projects in the area of People Management, in line with the company's transformation. We performed a diagnostic of how employees perceive the company, launched a new corporate learning model, and reviewed our talent development and performance assessment processes. Meanwhile, diversity remained as one of the company's priorities.

We also revamped our areas to be able to communicate better and facilitate collaboration between employees. We focus on investing in our corporate culture and on training, to take advantage of this time of transformation to prepare our team for the future.

A Pulse survey was sent to all Atvos employees with access to a corporate e-mail. The goal was to assess their perception of the company's current scenario, list their concerns, and measure the effectiveness of the company's communications. The

survey was comprised of 18 questions in the following categories: general understanding, engagement, Covid-19, and organizational climate.

We achieved an 80.1% response rate with 99% confidence. In general, our employees feel informed and engaged to work for Atvos, but they did stress their concerns with the future. Based on the results of this survey we developed action plans to address the sensitive points of the diagnosis.

Among the measures taken were an increase in the transparency between senior leaders and employees. We created Talk to the Leadership [Bate-papo com a Liderança], events that happen every two weeks between the CEO, executive directors and company employees selected by draw, where they can talk about the company's strategy. Along this same line, *Live com o CEO* is a quarterly event transmitted online to share Atvos' performance with employees.



Diversity is  
**one of our priorities**



In our **continuous learning model** every employee plays an active role in his/her self-development



## A corporate culture of learning

GRI 103-2, 103-3 | 404

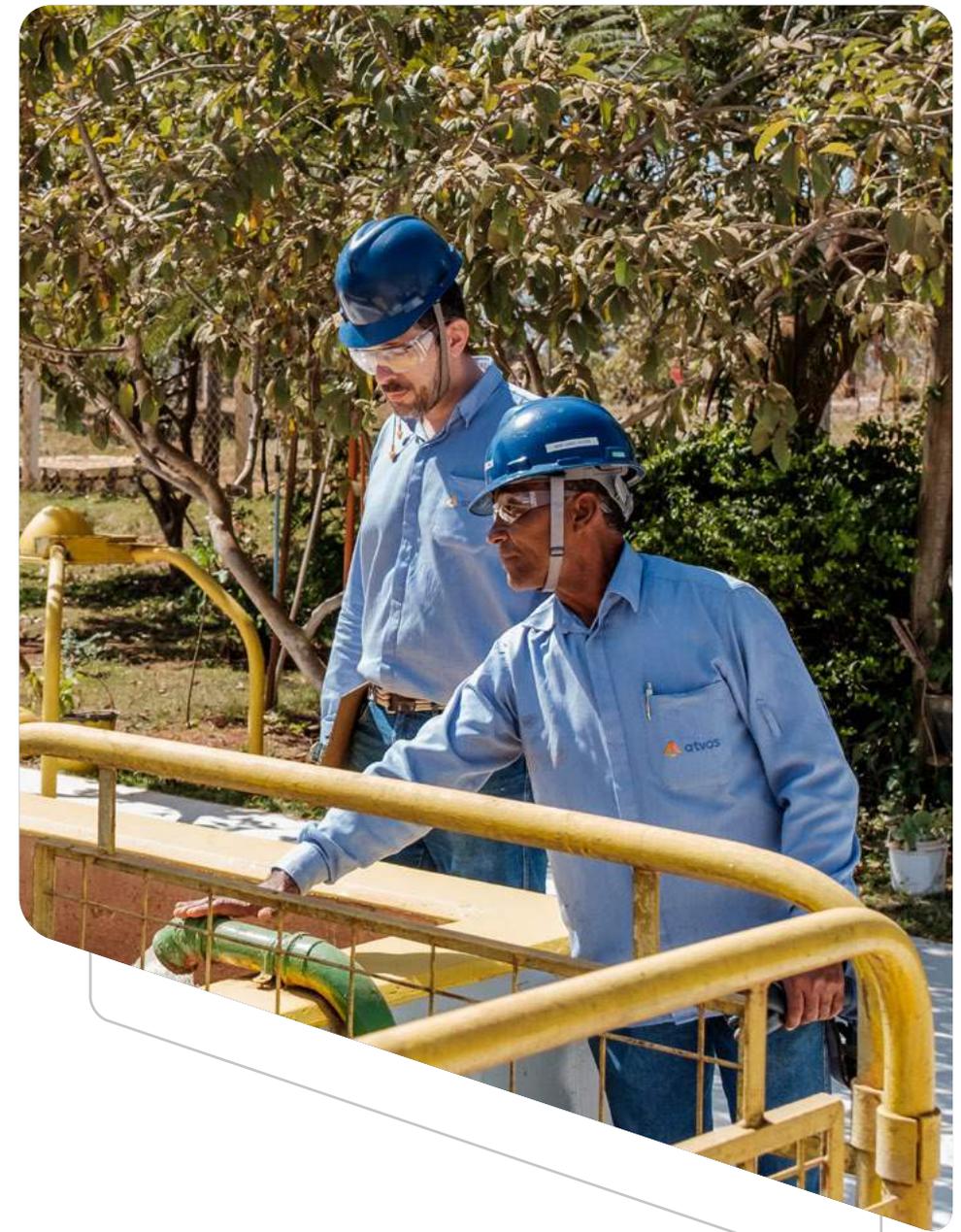
More than training, we want to offer our employees and the communities around us a culture of learning that will help them in their professional development. With this goal in mind, we created MOVA [Modelo Vivo de Aprendizagem], a living model for learning, with ten subject-based academies or movements to guide the learning journey.

MOVA is a model for continuous learning where each member is responsible for his or her own self-development. The learning paths are aligned with the business strategy, and focus on ensuring increased productivity, efficiency, and corporate security. We focus on personalization and on simplifying teaching methods and content, diversifying methodologies and respecting the various target audiences.

Formal and informal training initiatives may emerge in response to corporate as well as local demand. Corporate demands must fulfill the strategic criteria defined for each area, and serve all eight Atvos operating units. Local demand on the other hand, focuses on mitigating specific gaps in a given area or unit, but must also be aligned with corporate - both with the People & Organization (P&O) area and the specialist area.

We invest in a **culture of continuous learning** within the organization and in the communities we are part of.

  <b>movimento institucional</b>	Onboarding and training in Atvos policies.
  <b>conformidade &amp; riscos</b>	Training related to specific Atvos compliance policies, risk, and internal controls.
  <b>movimento ssma</b>	Training in health and safety internal procedures and regulatory standards.
  <b>movimento liderança</b>	Training related to developing leadership skills.
  <b>movimento comunidade</b>	Training for the community, focusing on critical Atvos demands.
  <b>movimento agrícola</b>	Development in the area of agricultural knowledge, vehicle maintenance, quality, and partnerships.
  <b>movimento industrial</b>	Development related to plant production and maintenance.
  <b>movimento comercial</b>	Initiatives focused on the market dynamics of our products.
  <b>movimento desenvolvimento e carreira</b>	Training related to behavioral skills and tools to support work and productivity.
  <b>movimento manutenção automotiva</b>	Training in vehicle maintenance.





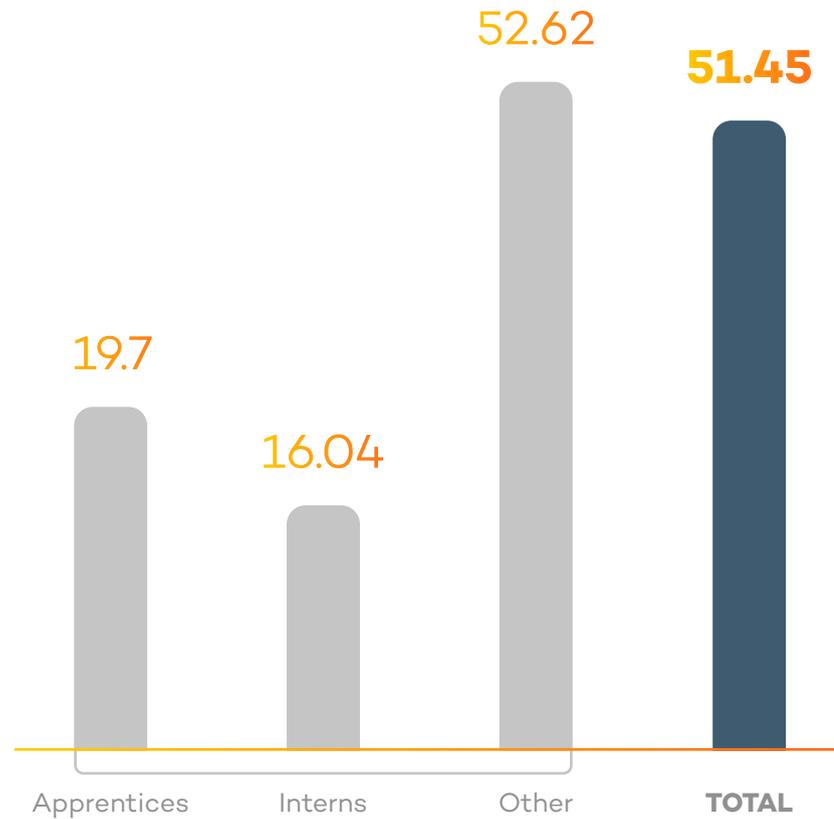
Learn about some of the MOVA measures during the crop year:

- We provided training in process operation for 85 members of the Morro Vermelho and Água Emendada units, located in Mineiros and Perolândia, GO respectively. Training is performed in partnership with SENAI, the National Service for Industrial Learning and the Qualification Stipend of the Worker Support Fund [Fundo de Amparo ao Trabalhador - FAT].
- Activities of the former “Elo com Elas” [a link to women], which trained women to operate farm equipment, have now been incorporated into MOVA. In crop year 2021/2022 we trained some 130 women in communities close to our operations in Alto Taquari (MT), Costa Rica (MS), Mineiros (GO), Mirante do Paranapanema (SP), Nova Alvorada do Sul (MS), and Teodoro Sampaio (SP). The goal of the initiative is to increase the participation of women in the sugar-ethanol industry and in agribusiness in general. Over half the women who graduated in the most recent groups now hold jobs with the company.
- Also as part of MOVA, 20 youth between the ages of 18 and 22 in Dourados (MS) were trained to work as administrative assistants, in a partnership with SENAI/MS.

**130**

In crop year 2021/2022, **130 women in the communities** surrounding Atvos were trained to operate farm equipment.

**Average hours of training for employees during the period covered by this report, broken down by employee category GRI 404-1**



**Average hours of training per employee by gender GRI 404-1**

	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22
Men	55.4	24.2	58.21
Women	43.8	13.81	48.63

**Average hours of training per employee by employee category GRI 404-1**

	Crop Year 19/20		Crop Year 20/21		Crop Year 21/22	
	Men	Women	Men	Women	Men	Women
Executives	6.7	4.0	0.5	0	0.73	0
Managers and Coordinators	20.1	12.5	9.1	1.4	15.02	5.68
Technicians	49.0	35.3	31.3	17.5	61.23	37.9
Administrative	14.9	10.6	6.0	3.4	0.03	20.98
Operations leads	70.7	49.1	31.6	14.4	66.59	30.21
Operational/Production	66.8	67.9	25.0	15.8	66.92	89.62
Maintenance	30.5	41.1	20.9	10.7	10.28	11.83
Other	54.6	61.2	22.8	13.3	0	0
<b>Total</b>	<b>55.4</b>	<b>43.8</b>	<b>24.2</b>	<b>13.8</b>	<b>58.21</b>	<b>48.63</b>



# Development and careers

GRI 103-2, 103-3 | 401

We created a youth acceleration program - the Atvos Generation -, to train young talents to work in coordination positions at our operating units. The most recent edition of the program allowed people to register on their own, rather than being limited to those selected by the leadership. The selection process happened during crop year 2021/2022, and training started in April, 2022.

Atvos Generation plans to develop technical and behavioral competences so that members are able to take on coordination positions. This is done via meetings and activities that promote full immersion in the business. Moving into leadership positions depends on the positions available and the company's strategy.

We evolved in the design of career path for Atvos employees in crop year 2021/2022. This initiative, which seeks to increase transparency and integrate professional development and the company's culture of learning, is almost ready. We also continue our effort to map and identify 60 women with leadership potential, to be trained and mentored to soon occupy strategic positions.

We launched **Atvos Generation**, an acceleration program for young talents.

## Turnover rate<sup>1</sup> GRI 401-1

By gender	21/22 <sup>2</sup>		Rate
	NC	ND	
Men	1,703	2,009	0.20
Women	475	435	0.05
By age group			
Under 30	1,064	831	0.10
30 to 50	1,021	1,353	0.13
Over 50	93	260	0.02
By geography			
MW	1,849	2,046	0.21
SE	329	398	0.04
<b>Total</b>	<b>2,178</b>	<b>2,444</b>	<b>0.25</b>

NC = number of new hires

ND = number of employees let go

<sup>1</sup> Calculation method: [(hired + terminated)/2]/total headcount

<sup>2</sup> Data from previous crop years is not available.



**9,213**  
Total headcount



### Members of governance bodies GRI 102-8

	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22
Governance body members	5	7	7

### Total workforce by employment contract and gender<sup>1</sup> GRI 102-8

Contract type	Crop Year 19/20			Crop Year 20/21 <sup>2</sup>			Crop Year 21/22		
	M	W	Total	M	W	Total	M	W	Total
Permanent	8,424	1,320	<b>9,744</b>	7,875	1,273	<b>9,148</b>	7,419	1,260	<b>8,679</b>
Temporary	152	142	<b>294</b>	150	142	<b>292</b>	288	205	<b>493</b>
<b>Total</b>	<b>8,576</b>	<b>1,462</b>	<b>10,038</b>	<b>8,025</b>	<b>1,415</b>	<b>9,440</b>	<b>7,707</b>	<b>1,465</b>	<b>9,172</b>

M = Men.

W = Women.

<sup>1</sup> Excluding interns, board members, outsourced workers and employees on unpaid leave. Temporary employees are employees with definite-term employment contracts and apprentices.

<sup>2</sup> Data as of March 2021 (the last month of crop year 2020/2021).

### Total workforce by employment contract and region GRI 102-8

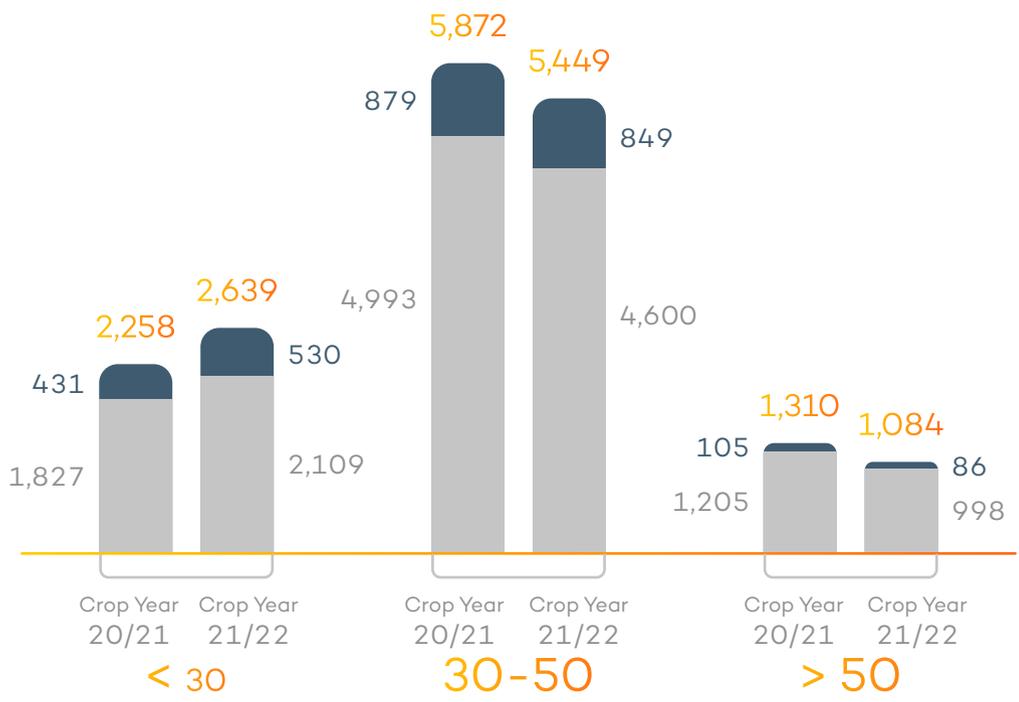
Region	Crop Year 19/20			Crop Year 20/21			Crop Year 21/22		
	DT	IT	Total	DT	IT	Total	DT	IT	Total
MW	198	7,600	<b>7,798</b>	202	7,079	<b>7,281</b>	405	6,680	<b>7,085</b>
SE	96	2,144	<b>2,240</b>	90	2,069	<b>2,159</b>	88	1,999	<b>2,087</b>
<b>Total</b>	<b>294</b>	<b>9,744</b>	<b>10,038</b>	<b>292</b>	<b>9,148</b>	<b>9,440</b>	<b>493</b>	<b>8,679</b>	<b>9,172</b>

DT = Definite term

IT = Indefinite term

## Workforce by age group and gender

GRI 102-8



	Crop Year 20/21	Crop Year 21/22
Women	1,415	1,465
Men	8,025	7,707
<b>Total</b>	<b>9,440</b>	<b>9,172</b>



### Workforce by employment type GRI 102-8

	Crop Year 20/21			Crop Year 21/22		
	Men	Women	Total	Men	Women	Total
Full time	7,998	1,386	<b>9,384</b>	7,624	1,335	<b>8,959</b>
Part time <sup>1</sup>	27	29	<b>56</b>	83	130	<b>213</b>
<b>Total</b>	<b>8,025</b>	<b>1,415</b>	<b>9,440</b>	<b>7,707</b>	<b>1,465</b>	<b>9,172</b>

<sup>1</sup> Includes apprentices receiving half a salary.

### Workforce by employee category GRI 102-8

	Crop Year 20/21			Crop Year 21/22		
	Men	Women	Total	Men	Women	Total
Executive Board	24	2	<b>26</b>	19	1	<b>20</b>
Middle Management	77	18	<b>95</b>	74	11	<b>85</b>
Coordinators	108	17	<b>125</b>	101	17	<b>118</b>
Technical/Supervisor	538	151	<b>689</b>	531	150	<b>681</b>
Administrative	208	165	<b>373</b>	202	176	<b>378</b>
Operacional <sup>1</sup>	7,064	1,059	<b>8,123</b>	6,664	927	<b>7,591</b>
Trainees <sup>1</sup>	6	3	<b>9</b>	1	1	<b>2</b>
Apprentices <sup>1</sup>	103	133	<b>236</b>	115	182	<b>297</b>
Interns <sup>1</sup>	17	9	<b>26</b>	12	14	<b>26</b>
<b>Total</b>	<b>8,042</b>	<b>1,424</b>	<b>9,466</b>	<b>7,719</b>	<b>1,479</b>	<b>9,198</b>

<sup>1</sup> Revised data for crop year 20/21. **GRI 102-48**

### Workforce by region and gender GRI 102-8

Region	Crop Year 20/21			Crop Year 21/22		
	Men	Women	Total	Men	Women	Total
MW	6,225	1,056	<b>7,281</b>	5,988	<b>1,097</b>	<b>7,085</b>
SE	1,800	359	<b>2,159</b>	1,719	368	<b>2,087</b>
<b>Total</b>	<b>8,025</b>	<b>1,415</b>	<b>9,440</b>	<b>7,707</b>	<b>1,465</b>	<b>9,172</b>



In 2022 all employees were **full time**

# Diversity

We signed the Women Empowerment Principles (WEPs), a joint initiative of the UN Global Compact and UN Women to strengthen female empowerment in the workplace, market, and society. According to the CNA, the Brazilian Federation of Agriculture and Livestock, women account for only 9.2% of those working in sugar-energy. We have designed initiatives to change this situation.

In June, 2021 we created a Diversity & Inclusion Committee to build an inclusive culture and promote a work environment that is respectful, welcoming, accessible, and equitable. This committee follows the creation of our Diversity & Inclusion Policy in the previous crop year. It is based on education and on developing awareness.

Our Allies Program [Programa de Aliados] is part of this. The role of this group is to foster D&I discussions and think of actions to disseminate the theme. The Committee's Action Plan includes company diagnosis, specific leadership training, and strategies to support actions.

The first Atvos Diversity Week happened this past March, and focused on gender equality and activities for employees and people outside the company. We promote communication and discussions to incentivize women protagonism in our industry.

Reports of discrimination may be made via our Ethics Hotline. The Diversity & Inclusion Committee and our Diversity and People Policies seek to promote a culture of non-discrimination in the company.

**GRI 103-2, 103-3 | 406**



Our **Diversity & Inclusion Committee** and **Diversity and People Policies** seek to promote a culture of non-discrimination in the company.

**Cases of discrimination** GRI 406-1

	Crop Year 20/21	Crop Year 21/22 <sup>1</sup>
Incident reviewed by the organization	1	0
Remediation plans being implemented	0	0
Number of incidents reviewed for which remediation plans have been implemented, with results reviewed through routine internal management review processes	0	0
Incident no longer subject to action (solved or closed)	1	0
<b>Total</b>	<b>2</b>	<b>0</b>

<sup>1</sup>Response is zero as no valid cases of discrimination were reported to the Ethics Hotline in the period.

**Employees trained on human rights** GRI 412-2

	Crop Year 19/20	Crop Year 20/21	Crop Year 21/22 <sup>1</sup>
Hours of training	4,400	2,424	0
Percentage of employees who have been trained	3.12%	2.44%	0

<sup>1</sup>In crop year 20/21 there was no training focused on human rights. Atvos is currently designing and approving new human rights guidelines for crop year 2022/23, and as of crop year 2023/24 will provide training on this topic.



## Women-Friendly Company Social Seal

The Eldorado unit received the Women-Friendly Company Social Seal from the state of Mato Grosso do Sul. This distinction is given to companies that contribute to women insertion in the workforce, and that value women's rights.

Among best practices developed by this unit are equal opportunity recruiting and selection with no gender distinction, implementation of indicators to monitor the percentage of women and set targets, training leaders about unconscious biases, and conversation rounds to encourage women employees to share their experiences.



# Occupational Health and Safety

GRI 103-2, 103-3 | 403, 410

ATITUDE [ATTITUDE] is our system to address safety, health, environment, and social responsibility issues. It allows us to proactively manage the hazards associated with the company's current and future activities, with initiatives to continuously identify, monitor, and reduce the hazards of our working processes and products.

This system emerged from our Sustainability Policy and monitors indicators that cover the company's economic, social, environmental, political, and cultural aspects. This includes, for instance, reducing the Atvos ecological footprint, the benefits of our products, services and programs for society, increased company competitiveness, and improved quality of the work environment, among other themes **GRI 403-1**

Atvos has procedures and guidelines to analyze the hazards associated with its activities across all areas. Risk assessments are updated to reflect any changes in activities, products, processes, technologies and facilities; in the event of any accidents or incidents; or otherwise every two years. To identify environmental issues and workplace hazards we look at operations that could result in atmospheric emissions, that use natural resources, where there is a danger of slipping or falling, where equipment is handled, where there is exposure to hazardous substances, repetitive activities, and any other issues that could be part of this non-exhaustive list. **GRI 403-2**

The HS&E (Health, Safety, and Environment) stewardship system focuses on complying with Brazilian legal requirements, and adopts practices identified in other systems and included in international standards. These are assessed annually by an internal team, and units are inspected each month.

This system includes a number of tools that give workers access to their indicators and contribute to process development. Leaders are responsible for disclosing the company's Sustainability Policy to their teams, and for breaking down area indicators, promoting forums for discussion, critical analysis, and continuous improvement.

Atvos has guidelines for **risk analysis** in all activities



Definition and standardization of the types, means, and frequency of communication required for proper management of SH&E and Sustainability communications:

**GRI 403-4**

Type	Environment	Frequency
<b>Notification of accidents, near misses, and deviations</b>	Safety meetings, organizational synergies, and handling deviation and losses	According to the frequency of meetings at the units, or whenever there are deviations or losses
<b>Notification of emergencies</b>	Emergency preparedness and response	Whenever they occur
<b>Notification of hazards</b>	Training Information on SH&E identification and analysis of activities and services; Permit to Work Information on products and processes on safety labels; Information on products and processes on emergency sheets;	Team and partner integration; Available at all times; At each issue; Available at all times; The information must be available as part of the documents required for the transportation of hazardous goods.

Actions agreed upon by SH&E committees (senior unit and area leaders) must ensure a suitable level of disclosure. Controls are implemented for each action proposed. Every six months units must perform a critical analysis of their results with senior leaders, and propose an action plan to turn the results around, if necessary.

Atvos SH&E guidelines, indicators, and procedures apply to all partners working on behalf of the company, and there is no difference in how they are assessed. We monitor partner practices, procedures, and results, and they are subject to the same requirements as the company itself.

Every employee and partner must receive basic information about SH&E hazards and controls so that they may access, remain, and move about Atvos facilities in a safe and healthy way. This also applies to visitors.

Those in critical positions must fulfill minimum requirements to perform their activities and complete frequent and compulsory training.

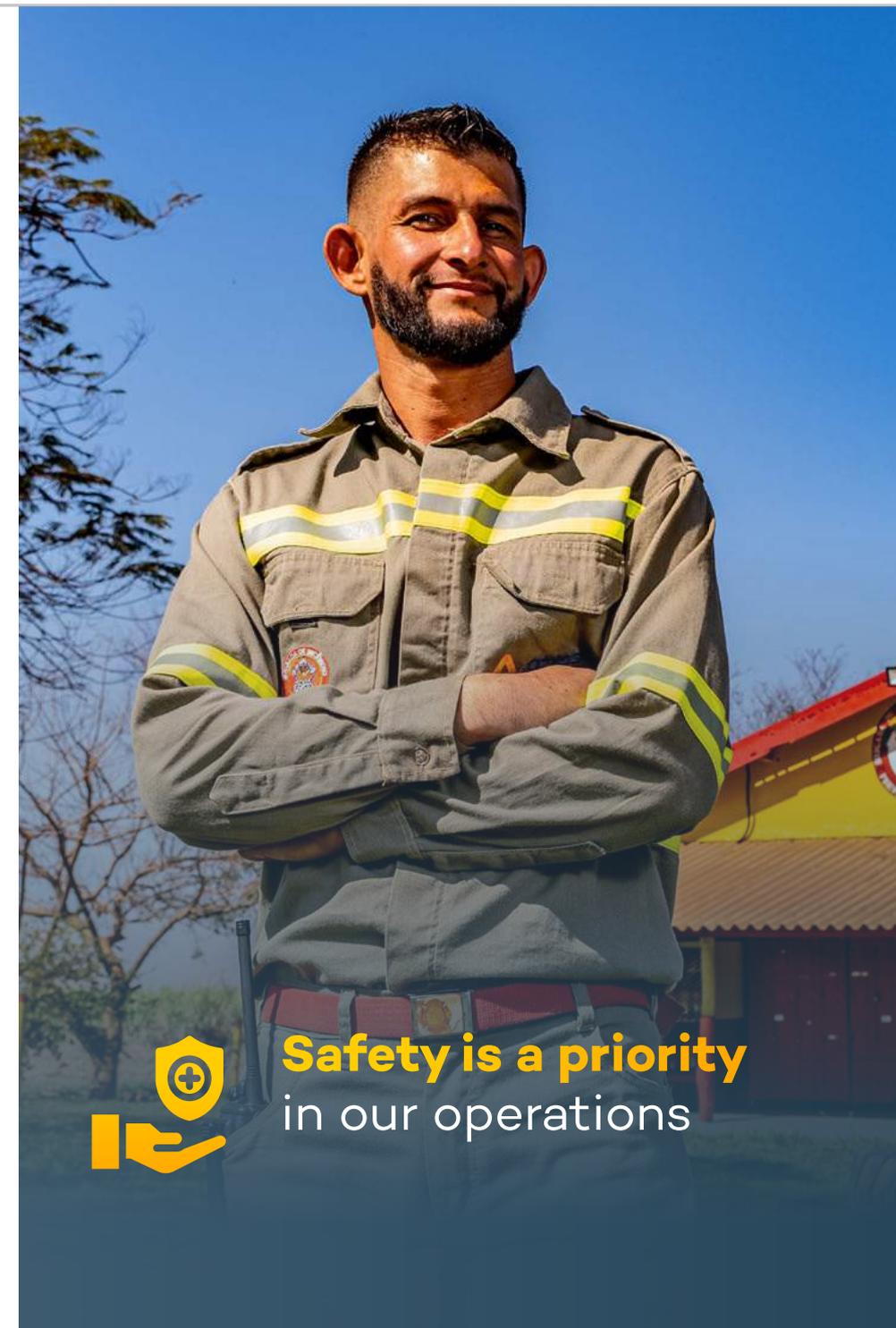
Employees must not only follow regulatory standards, but also our Golden Rules, a set of nine principles on workplace behaviors that are recommended or forbidden to ensure the safety of all. **GRI 403-5**

## Work-related injuries GRI 403-9

	Crop Year 19/20		Crop Year 20/21		Crop Year 21/22	
	E	T	E	T	E	T
Number of hours worked	21,387,283	10,649,874	18,438,777.76	8,009,227.31	18,698,326	8,428,077
Hours worked	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Number of fatalities as a result of work-related injury	0	2	0	0	0	0
Rate of fatalities as a result of work-related injury	0	0.19	0	0	0	0
Number of serious work-related injuries (excluding deaths)	2	0	0	0	0	0
Rate of serious work-related injuries (excluding deaths)	0.09	0	-	-	0	0
Number of recorded work-related injuries (including deaths)	25	13	20	2	24	7
Rate of recorded work-related injuries (including deaths)	1.16	1.22	1.08	0.25	1.28	0.83
Types of work-related injuries	Fractures, pinch-point injuries and burns	Fractures and sprains	Fractures due to falls from heights, slipping and falling, pinch-point injuries and burns.	Cuts	Fractures due to falls from heights, slipping and falling, pinch-point injuries and burns.	Falling from standing height, pinch-point injuries, and burns.

E = Employees

T = Workers who are not employees, but whose work and/or workplace is controlled by the organization



**Safety is a priority**  
in our operations

# Health monitoring and promotion

GRI 403-3, 403-6, 403-7

All Atvos workers are monitored by the unit health services. Units have an equipped on-site infirmary available 24x7. The PCMSO, or Medical Control and Occupational Health Program monitors occupational risks identified by the worker PGR (Risk Management Program), ensuring any risks are minimized.

Atvos employee medical files are securely locked and stored, under the legal guardianship of the workplace physicians of each unit. All of the information added to the system is confidential, and access is limited to the healthcare teams and covered by professional confidentiality.

We monitor all business activities that could impact worker health and safety, and provide direct support to partners and contractors who work on our premises, and analyze the health programs of third parties. The PGR creates barriers to neutralize the risks of occupational diseases. In 2021 we recorded no instances of work-related ill health. **GRI 403-10**

The company also has a program entitled PPSAC, which promotes group health and health services, and educates people regarding non-occupational health, monitors those on leave for non-work-related issues, and organizes health campaigns and well-being programs.

In crop year 2021/2022 **no occupational diseases** were recorded at Atvos

## Campaigns and actions in crop year 2021/2022:

- **Flu (H1N1) vaccines:** campaign to vaccinate employees with the support of partner clinics.
- **Green April:** activities to foster awareness of the importance of workplace safety.
- **Yellow May:** activities to foster awareness of traffic safety for employees, partners, and the surrounding communities.
- **Yellow September:** campaigns and conversations to develop awareness of mental healthcare, including programs launched by healthcare providers that focus on the emotional well-being of employees and their families.
- **Pink October:** healthcare plan co-pay fees for tests essential for women's health waived for employees and their dependents.
- **Blue November:** healthcare plan co-pay fees for tests essential for men's health waived to help create awareness about prostate cancer.
- **Leadership Training:** videos created to support operational leadership training on the importance of their role in complying with safety rules, and how to be a good role model for their teams.

### Number and percentage of workers covered by an occupational health and safety management system GRI 403-8

Employees		Crop Year 20/21 <sup>1</sup>		Crop Year 21/22	
		No.	%	No.	%
Total number of individuals	E	-	-	8,657	100
	T	9,462	100	3,902	100
Individuals covered by an occupational health and safety management system based on legal requirements and/or recognized standards/guidelines	E	-	-	8,657	100
	T	9,462	100	3,902	100
Individuals covered by such a system that has been internally audited.	E	-	-	8,657	100
	T	9,092	96	3,902	100
Individuals covered by such a system that has been audited or certified by an external party.	E	-	-	8,657	100
	T	9,092	96	3,902	100

E = Employees

T = Workers who are not employees, but whose work and/or workplace is controlled by the organization

<sup>1</sup> We do not have the exact number of Atvos contractors and service providers, but all are in some way monitored and controlled for compliance with workplace health and safety practices by internal teams. Furthermore, partner and service provider programs in this area are systematically assessed.

## COVID-19

Atvos protocols to create Covid-19-safe work environments started in crop year 2019/2020. The measures adopted include:

- All office employees in São Paulo and Campinas and administrative employees at all mills were assigned to work from home.
- Paid leave for employees in any of the risk groups unable to work from home.
- Shifts rearranged to reduce occupancy rates at our facilities and during employee transportation.
- More intense cleaning and sanitization of vehicles used for worker transportation.
- Hand sanitizer available at all facilities, and protective masks distributed.

Despite all these initiatives, we lost seven employees to Covid-19 since the last harvest. With the increase in vaccines provided by SUS, we ran campaigns to answer questions about immunization, with videos and statements from our own workplace doctors and nurses to clarify any issues. The City Health Departments at some locations where we operate actually took Covid-19 vaccines to our facilities to immunize employees in priority groups.

As vaccination progressed we monitored employee vaccines until all of them had been vaxed and boosted, and following the guidelines of the official health agencies we were able to evolve in our own protocols. Among the changes implemented are the Work Regimen Guidelines, which now include hybrid work (three days in the office and two remote) for those working in our São Paulo and Campinas offices. At our plants we adjusted our shifts and made occupancy in transportation flexible, following official recommendations and adjusting our protective measures accordingly.

# Communities

GRI 103-2, 103-3 | 203, 203-2

We strive to have a close relationship with the surrounding communities, and support their economic and social development. Communities are a priority for the company's strategic planning. We are reviewing the initiatives of the Social Energy [Energia Social] program to promote structural projects that will have lasting impact and are a good fit with the direction of our business.

The program is based on the premise that all project must be independently sustainable. It is monitored by the sustainability area and by each local agro-industrial facility. Despite the challenges of the pandemic, which limited our in-person activities, we were able to develop community support activities during the crop year. Learn more:

## Environmental Recovery

We are planting 300,000 saplings around Mirante do Paranapanema (SP), in a partnership with IPE, the Institute for Ecological Research. The idea is to link forest sections and create an Atlantic Forest corridor.

In Perolândia (GO), we joined forces with the Federal University of Goiás and local farmers to recover an area that includes 11 springs. In Deodápolis (MS) we are providing saplings to recover the Ivinhema River headwaters. We also promote environmental education in the schools around our plants.

## Costa Rica (MS) Conflict Mediation Center

This partnership between Atvos and the State government just turned four. We helped build the facility and trained volunteers to be conflict mediators, keeping some cases outside the courts.

## Movies in the Square

We showed movies outdoors in a collaboration with the Deodápolis (MS) city government.



### Donation of 70% alcohol

Since March 2020, Atvos has donated over 220,000 liters of 70% ethanol to institutions in the states of São Paulo, Goiás, Mato Grosso, Mato Grosso do Sul, Bahia, and Tocantins. We estimate that over 5.8 million people in over 30 cities and towns benefited from this.

### Other donation campaigns

We subscribed to the Christmas Without Hunger Campaign organized by NGO “Ação da Cidadania” [Citizenship Action] and collected donations of all types of goods at our facilities. In Western SP we collected goods to create end-of-year baskets for local institutions; in Goiás we collected geriatric diapers for homes for the elderly; and in Mato Grosso do Sul we donated toys to APAE, the Association of Friends and Parents of People with Down Syndrome. **GRI 102-12**

### Community Movement

The former “Elo com Elas” program is now part of MOVA, and aims to increase female participation in the sugar-energy industry. This program provides training and fosters the hiring of women in operational positions at Atvos.

The former “Acreditar Júnior”, now also part of Mova, trained 13 youth in Nova Alvorada do Sul (MS) in tractor maintenance and mechanics. They later participated in an employee screening process and were hired by the company.

Read more about training provided on page 54.

## We strive to have a close relationship with the surrounding communities, and support their economic and social development

Communities may request support by completing a form on the Atvos website at <https://atvos.com/sustentabilidade/apoio-comunitario/>. Internal managers are in charge of approving these requests. Donations are consolidated and reported to the Board of Directors and senior managers.



# Institutional and government relations

GRI 102-13

The Atvos Institutional and Government Relations area monitors the regulatory agenda of the fuel and sugar-ethanol industries. Thanks to this, Atvos is able to monitor the main discussions of federal policies at the city, state, and federal level, keeping the business areas up-to-date in what is going on. We are also members of the main industry and business associations, such as:

- **Unica:** Sugarcane and Bioenergy Industry Association
- **SIFAEG:** Goiás State Ethanol Industry Union
- **Biosul:** Mato Grosso do Sul Bioelectricity Producers' Association
- **SINDALCOOL:** Mato Grosso Union of Bioenergy Industries
- **UDOP:** Brazilian Bioenergy Union
- **COGEN:** Cogeneration Industry Association

**We actively monitor** discussions on the fuel and sugar-ethanol industries





**All sugarcane suppliers** sign a Sustainable Sugarcane Supply Chain Pledge.

# Suppliers and partners

GRI 102-9, 103-2, 103-3 | 203, 308, 408, 409, 412, 414

In crop year 2021/2022 we had 2,456 suppliers of goods and services, totaling R\$ 2.3 billion in business. We had 42 sugarcane suppliers, who delivered 10 million tons during the period.

Supplier adherence to the company's ethics and sustainability principles is essential. Therefore, all suppliers and contractors must be homologated, depending on the criticality of what they supply. Tax, environmental, social, and technical documents are verified. We continuously check raw material and service providers. In crop year 2021/2022 all sugarcane suppliers were verified. Documentation is constantly monitored and incorporated into the company's management system. **GRI 308-1**

All suppliers of goods and services to any Atvos facility must accept the Supplier and Partner Code of Conduct and Ethics, answer a Sustainability questionnaire, and undergo human rights evaluations. In the 2021/2022 crop year, 100% of our operations were subject to human rights reviews or impact assessments. As of December 2021, occasional material suppliers were exempt from the

homologation process to make the purchasing process more agile and competitive.

All suppliers sign a Sustainable Sugarcane Supply Chain Pledge based on the ten principles of the Global Compact. The pledge covers the following topics: respecting human rights, combating child and forced labor, protecting habitats, anti-corruption and legal compliance. Prior to onboarding, suppliers are required to declare that they do not use child or forced labor, and to commit to observing best labor practices. Field visits reinforce this protective practice and ensure these pledges are fully met.

Contract sugarcane growers are assessed on compliance with our Sustainable Supply Chain Procedure. This procedure summarizes the social and environmental items to be covered in the assessments, such as rest areas, pesticide storage, number of registered workers, and type of employment. A multidisciplinary team checks these from time to time. Suppliers who fail to comply are notified and may be excluded.

Late in the crop year we signed a partnership with Sebrae in Mato Grosso do Sul to develop small and micro businesses in the north of the state, increasing their competitiveness to supply goods and services. Atvos units in Costa Rica (MS) and Alto Taquari (MT) are now part of the Production Chain Working Group, which promotes activities with suppliers, while Sebrae will look at the demand of major companies in the region and consider them in their trainings so as to foster the entire production chain.



# Stronger Partners

With producers and lessees in all states where we are active, we created a relationship program known as “Stronger Partners”, whose goal is to create dialog and continuous improvement. Through this program we share updated information on techniques, best practices, and technology resources to collaborate in knowledge creation.

The program is monitored by the partnership team, as well as a multidisciplinary team that follows socio-environmental practices and conducts due-diligence twice a year. The result of this process is reported in detail to the leaders of the agro-industrial units so that they may create action plans for improvements with suppliers. The “Stronger Partners” management system is being redesigned to adopt monitoring technologies and create an in-house database to facilitate ESG indicator governance.



- **10 million metric tons** of partner-supplied sugarcane
- **26,397 plantation** hectares
- **42 sugarcane** suppliers
- **100% reviewed** in Sustainability Assessment Rounds

## 100% of suppliers screened using social criteria

### Percentage of new suppliers that were screened using social criteria GRI 414-1

	Crop Year 20/21	Crop Year 21/22
Total new suppliers considered for onboarding	600	937 <sup>1</sup>
Total new suppliers that were screened using social criteria	600	937
Percentage of new suppliers that were screened using social criteria (%)	100%	100%

<sup>1</sup> Suppliers of materials and services only.

### Suppliers with real and potential negative social impact GRI 414-2

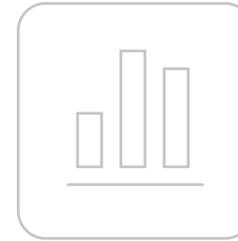
	Crop Year 20/21	Crop Year 21/22
No. of suppliers assessed for social impacts <sup>2</sup>	2,266	2,457

<sup>2</sup> Suppliers of materials and services only.

# About this report

GRI 102-44, 102-46

In compliance with Global Reporting (GRI) Standards, this report was developed based on themes that are material for the company. Our materiality matrix was reviewed in 2019 and includes 11 themes, three are priority, and eight are very important, as shown below.



The Atvos Sustainability Report is based on the **11 themes** considered to be of greatest impact



## The organization's involvement with the impacts

Material Topic GRI 103-1, 102-47	Why the topic is material GRI 102-44	Where the impact happens
----------------------------------	--------------------------------------	--------------------------

<p><b>Field and mill productivity and technology</b></p>	<p>Our purpose is to deliver creative and profitable clean-energy solutions that are sustainable for our planet. Therefore, the continuous improvement of our production processes, manufacturing plants, and field technology is one of our master pillars. This topic is critical for the company's longevity and market competitiveness.</p>	<p>Within and outside the organization</p>
<p><b>Indebtedness</b></p>	<p>This characterizes the importance of the company's capital structure when it comes to applying the materiality survey, given that we are currently in a judicial recovery process.</p>	<p>Direct - within the organization. Reputational impacts - outside of the organization</p>
<p><b>Ethics, integrity and transparency</b></p>	<p>This is an essential business value and one that is questioned by external stakeholders.</p>	<p>Within and outside the organization</p>
<p><b>Respecting human and labor rights</b></p>	<p>Beyond image risks, the company is committed to protecting its credit and reputation. We are committed to protecting and upholding the rights of all people.</p>	<p>Within and outside the organization, extending along the entire supply chain</p>
<p><b>Health and Safety</b></p>	<p>This is one of the company's essential values</p>	<p>Within the organization</p>

<p>We are responsibly increasing our output; leadership efforts are focused on this and on simultaneously mitigating our socio-environmental footprint, incorporating support technologies to our governance.</p>
<p>All eyes - from senior leadership to operations - are focused on governance in this area.</p>
<p>Compliance and initiatives are constantly monitored (macro indicators). The sustainability area has started a major review and improvement of policies and governance devices related to this material topic.</p>
<p>We are adding more technology to monitor the processes used to check non-conformities and mitigate risks along the entire supply chain. Company engagement is multi-disciplinary and multi-level.</p>
<p>This topic is monitored at the strategic, tactical, and operational level, and is included in executive compensation targets.</p>



**The organization's involvement with the impacts**

**Material Topic GRI 103-1, 102-47**    **Why the topic is material GRI 102-44**    **Where the impact happens**

-  **Training and Recognition**
-  **Partner and supply-chain relations and risk management**
-  **Clean and efficient energy**
-  **Environmental risk controls and prevention**
-  **Soil stewardship**
-  **Water Stewardship**

These are essential for business performance and the economic wellbeing of the surrounding communities.

This is a critical ESG element in agricultural chains.

Our core business.

This is a critical ESG element in agricultural chains.

This is a critical ESG element in agricultural chains.

This is a critical ESG element in agricultural chains.

-  Within and outside the organization
-  Within and outside the organization
-  Within and outside the organization
-  Within and outside the organization
-  Within the organization
-  Within and outside the organization

It permeates our priority strategy and investments, which focus on qualifying local labor to develop employee careers. The legacy of the training we provide extends beyond our operations, and directly benefits the communities, reinforcing the professional capabilities of those who live there.

Improved verification and monitoring processes by multidisciplinary teams. Program for sugarcane suppliers. Continuous review of policies and guidelines. A technology tool (APP) to monitor and assess developments to improve the governance of this material topic.

Priority investments to increase energy efficiency and decarbonize output.

Control and follow-up models that focus on risk prevention and mitigation. The eco-indicator matrix is being reviewed by the sustainability team, which will invest in consolidating a broad and multi-departmental database. Technology tools to monitor these indicators are being developed.

Investments to develop more responsible agricultural soil stewardship techniques with less impact on the environment.

This theme is monitored by operating leaders and focuses on reducing water use. It will be included in our risk matrix as a layer of geo-technological data related to modeling climate risk - water stress.

To build our materiality matrix, we surveyed 91 employees and 64 external stakeholders (agricultural partners, suppliers, the financial market, customers, civil society, the media, investment banks, industry associations and government representatives) via an online questionnaire, and interviewed ten Atvos executives and six financial-market executives.

Atvos has developed a closer relationship with different audiences, always based on a premise of ethical and transparent communication. The following tables are related to our approach to stakeholder engagement:

## Approach to stakeholder engagement GRI 102-40, 102-42, 102-43

Name of audience	Type of engagement (e.g. ombudsman channel, site visits, online surveys, in-person group, phone survey, etc.)	Frequency of engagement	Was engagement specifically promoted as part of the report preparation process?
<b>Employees (internal audience)</b>	Internal communication channels (e-mail, e-communiques, intranet, murals, WhatsApps, DDS) We performed a climate survey of part of our employees early in crop year 2021/2022 People Management System	Daily	No
<b>Media (opinion makers)</b>	Releases submitted and contacted made via press agency	Daily	No
<b>Communities</b>	Engagement and information campaigns and actions	On-demand	No
<b>Suppliers</b>	Whenever necessary, we send information e-mails to our suppliers so that they are all aware of the main changes in our processes that could impact their day-to-day activities. These include: <ul style="list-style-type: none"> <li>- including data on invoices so that we may automate receiving and void payment delays;</li> <li>- updated banking information for payment of the JR installments;</li> <li>- Changes in the quotation portal, with the inclusion of information;</li> </ul> The Ethics Hotline is available to our Compliance team whenever they feel uncomfortable with any supplier. We disclose the existence of this open whistleblowing channel.	On-demand	

## Main concerns and topics raised

### GRI 102-44

<b>Team members (internal stakeholders)</b>	This audience is essential for engagement and information on company actions, campaigns, standards, and initiatives.
<b>Media (opinion makers)</b>	Brand reputation and image.
<b>Communities</b>	Maintain a close relationship with the surrounding communities, supporting local social development
<b>Suppliers</b>	The importance of frequent communication to keep suppliers informed.

For further information on our materiality process please go to the crop year 2019/2020 report, on page <https://atvos.com/comunicacao/relatorio-anual/> The Atvos materiality matrix will be reviewed in crop year 2022/2023.

# GRI Content Index

GRI 102-55

## General disclosures

GRI Standards	Disclosure	Page/URL	Omission	SDGs
<b>GRI 101: Foundation 2016</b>				
<b>GRI 101 contains no disclosures</b>				
<b>Organizational profile</b>				
<b>GRI 102: General disclosures 2016</b>	102-1 Name of the organization	4		
	102-2 Activities, brands, products, and services	9		
	102-3 Location of headquarters	11		
	102-4 Location of operations	11		
	102-5 Ownership and legal form	9		
	102-6 Markets served	9		
	102-7 Scale of the organization	11		
	102-8 Information on employees and other workers	51, 57, 58, 59		8, 10
	102-9 Supply chain	70		
	102-10 Significant changes to the organization and its supply chain	There were no significant changes in the supply chain.		
	102-11 Precautionary principle or approach	17		
	102-12 External initiatives	13, 68		
	102-13 Membership of associations	13, 69		
<b>Strategy</b>				
<b>GRI 102: General disclosures 2016</b>	102-14 Statement from senior decision-maker	4		
	102-15 Key impacts, risks, and opportunities	23		
<b>Ethics and integrity</b>				
<b>GRI 102: General disclosures 2016</b>	102-16 Values, principles, standards, and norms of behavior	12		16
	102-17 Mechanisms for advice and concerns about ethics	17, 22		16

GRI Standards	Disclosure	Page/URL	Omission	SDGs
<b>Governance</b>				
	102-18 Governance structure	15		
<b>GRI 102: General disclosures 2016</b>	102-38 Annual total compensation ratio	In 2020 the annual total compensation ratio was 0.89%. The calculation (basic salary + productivity bonus + 13th salary + 1/3 Vacation + Profit Sharing) includes full-time and part-time employees and contractors. In 2021 this information was deemed confidential.		
	102-39 Percentage increase in annual total compensation ratio	This information is confidential.		
<b>Stakeholder engagement</b>				
	102-40 List of stakeholder groups	74		
<b>GRI 102: General disclosures 2016</b>	102-41 Collective bargaining agreements	100% of the total workforce is covered by collective bargaining agreements.		8
	102-42 Identifying and selecting stakeholders	74		
	102-43 Approach to stakeholder engagement	74		
	102-44 Key topics and concerns raised	72, 73, 74		
<b>Reporting practices</b>				
<b>GRI 102: General disclosures 2016</b>	102-45 Entities included in the consolidated financial statements	3		
	102-46 Defining report content and topic Boundaries	3, 72		
	102-47 List of material topics	72, 73		
	102-48 Restatements of information	49, 59		
	102-49 Changes in reporting	There were no changes in reporting		
	102-50 Reporting period	3		
	102-51 Date of most recent report	2020/2021. 3		
	102-52 Reporting cycle	Annual (crop year)		
	102-53 Contact point for questions regarding the report	3		
	102-54 Claims of reporting in accordance with the GRI Standards	3		
	102-55 GRI content index	75		
102-56 External assurance	Not procured			

## Material topics

GRI Standards	Disclosure	Page/URL	Omission	SDGs
<b>Economic performance</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	22, 44, 49		
	103-3 Evaluation of the management approach	44, 49		
<b>GRI 201: Economic performance 2016</b>	201-1 Direct economic value generated and distributed	49		8, 9
	201-4 Financial assistance received from government	49		
<b>Indirect economic impacts</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	67, 70		
	103-3 Evaluation of the management approach	67, 70		
<b>GRI 203: Indirect economic impacts 2016</b>	203-2 Significant indirect economic impacts	67		1, 3, 8
<b>Anti-corruption</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	17		
	103-3 Evaluation of the management approach	17		
<b>GRI 205: Anti-corruption 2016</b>	205-1 Operations assessed for risks related to corruption	All operations within the organization are assessed for risks related to corruption.		16
	205-2 Communication and training on anti-corruption policies and procedures	All governance body members (6 individuals) were informed about our anti-corruption policies and procedures in the 20/21 crop year. In crop year 21/22 no communication or training on anti-corruption was provided to governance body members.		16
	205-3 Confirmed incidents of corruption and actions taken	All business partners (12,256) were informed about our anti-corruption policies and procedures in crop year 20/21. In crop year 21/22 no communication or training on anti-corruption was provided to business partners. Not applicable.		16
<b>Materials</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	44		
	103-3 Evaluation of the management approach	44		
<b>GRI 301: Materials 2016</b>	301-1 Materials used by weight or volume	44		8, 12

GRI Standards	Disclosure	Page/URL	Omission	SDGs
<b>Energy</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	39		
	103-3 Evaluation of the management approach	39		
<b>GRI 302: Energy 2016</b>	302-1 Energy consumption within the organization	39, 40, 44		7, 8, 12, 13
	302-2 Energy consumption outside of the organization	Energy consumption outside the organization in the 2021/2022 crop year was XX GJ.		7, 8, 12, 13
	302-3 Energy intensity	40		7, 8, 12, 13
	302-4 Reduction of energy consumption	40		7, 8, 12, 13
<b>Water &amp; Effluents</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	41		
	103-3 Evaluation of the management approach	41		
<b>GRI 303: Water and effluents 2019</b>	303-1 Interactions with water as a shared resource	41		6, 12
	303-2 Management of water discharge related impacts	41		6
	303-3 Water withdrawal	41		6, 8, 12
	303-4 Water discharge	No wastewater is discharged.		6
	303-5 Water consumption	We monitor water consumption in our mill operations and set mill-specific water consumption targets. Water intensity is reported in m <sup>3</sup> per metric ton of sugarcane crushed in the crop year. Water consumption is reported for our mill operations as a whole, including the production of ethanol, sugar and electricity. For further details, see disclosure <b>303-1</b> .		6
<b>Biodiversity</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	34		
	103-3 Evaluation of the management approach	34		

GRI Standards	Disclosure	Page/URL	Omission	SDGs
<b>GRI 304: Biodiversity 2016</b>	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	34, 35		6, 14, 15
	304-2 Significant impacts of activities, products, and services on biodiversity	34		6, 14, 15
	304-3 Habitats protected or restored	35		6, 14, 15
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by the organization's operations	No areas affected by our operations have any impacts on species conservation.		6, 14, 15
<b>Emissions</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	36		
	103-3 Evaluation of the management approach	36		
<b>GRI 305: Emissions 2016</b>	305-1 Direct (Scope 1) GHG emissions	37		3, 12, 13, 14, 15
	305-2 Energy indirect (Scope 2) GHG emissions	37		3, 12, 13, 14, 15
	305-3 Other indirect (Scope 3) GHG emissions	37		3, 12, 13, 14, 15
	305-4 GHG emissions intensity	37		13, 14, 15
	305-5 Reduction of GHG emissions	We had no coordinated initiatives to demonstrate GHG emissions reductions.		13, 14, 15
<b>Waste</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	42		
	103-3 Evaluation of the management approach	42		
<b>GRI 306: Waste 2021</b>	306-1 Waste generation and significant waste-related impacts	There are no impacts, as all waste is compliantly segregated, sorted, stored, transported, treated and disposed of.		3, 6, 11, 12
	306-2 Management of significant waste-related impacts	42		3, 6, 11, 12
	306-3 Waste generated	42, 43		3, 6, 12, 14, 15
	306-5 Waste directed to disposal	42, 43		3, 6, 11, 12, 14, 15
<b>Environmental compliance</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	33		
	103-3 Evaluation of the management approach	33		

GRI Standards	Disclosure	Page/URL	Omission	SDGs
<b>GRI 307: Environmental compliance 2016</b>	307-1 Non-compliance with environmental laws and regulations	33		16
<b>Supplier environmental assessment</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	70		
	103-3 Evaluation of the management approach	70		
<b>GRI 308: Supplier environmental assessment 2016</b>	308-1 New suppliers that were screened using environmental criteria	70		
	308-2 Negative environmental impacts in the supply chain and actions taken	The percentage of suppliers identified as having significant negative environmental impacts is nil.		
<b>Employment</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	56		
	103-3 Evaluation of the management approach	56		
<b>GRI 401: Employment 2016</b>	401-1 New employee hires and employee turnover	56		5, 8, 10
<b>Occupational health and safety</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	62		
	103-3 Evaluation of the management approach	62		
<b>GRI 403: Occupational health and safety 2019</b>	403-1 Occupational health and safety management system	62		8
	403-2 Hazard identification, risk assessment, and incident investigation	62		3, 8
	403-3 Occupational health services	65		3, 8
	403-4 Worker participation, consultation, and communication on occupational health and safety	63		8, 16
	403-5 Worker training on occupational health and safety	63		8
	403-6 Promotion of worker health	65		3
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	65		8
	403-8 Workers covered by an occupational health and safety management system	66		8
	403-9 Work-related injuries	64		3, 8, 16
	403-10 Work-related ill health	62		3, 8, 16

GRI Standards	Disclosure	Page/URL	Omission	SDGs
<b>Training and education</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	52		
	103-3 Evaluation of the management approach	52		
<b>GRI 404: Training and education 2016</b>	404-1 Average hours of training per year per employee	55		4, 5, 8, 10
<b>Non-discrimination</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	60		
	103-3 Evaluation of the management approach	60		
<b>GRI 406: Non-discrimination 2016</b>	406-1 Incidents of discrimination and corrective actions taken	61		5, 8
<b>Freedom of association and collective bargaining</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	Labor unions are given free access to our premises to interact with employees and run union campaigns. We also support them and relay their communications on request, and support our employees' constitutional right to freedom of association. All collective bargaining meetings are held by managers and accompanied by a legal team. Resolutions are documented in minutes and publicly disclosed, as part of our policy of transparency toward union representatives and represented team members.		
	103-3 Evaluation of the management approach	See above.		
<b>GRI 407: Freedom of association and collective bargaining 2016</b>	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	No incidents were identified during the reporting period.		8
<b>Child labor</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	70		
	103-3 Evaluation of the management approach	70		
<b>GRI 408: Child labor 2016</b>	408-1 Operations and suppliers at significant risk for incidents of child labor	No incidents of violations involving child labor were identified during the reporting period.		8, 16

GRI Standards	Disclosure	Page/URL	Omission	SDGs
<b>Forced or compulsory labor</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	70		
	103-3 Evaluation of the management approach	70		
<b>GRI 409: Forced or compulsory labor 2016</b>	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	No incidents involving forced labor were identified during the reporting period.		8
<b>Safety practices</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	72		
	103-3 Evaluation of the management approach	72		
<b>GRI 410: Security practices 2016</b>	410-1 Security personnel trained in human rights policies or procedures	In the 21/22 crop year there was no training focused on human rights. Atvos is currently designing and approving new human rights guidelines for crop year 2022/2023, and as of crop year 2023/2024 will provide training on this topic.		16
<b>Rights of indigenous peoples</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	Atvos has no restrictions on hiring indigenous employees, provided we meet the legal requirement of notifying and seeking authorization from the relevant agency (FUNAI) where required by applicable regulations.		
	103-3 Evaluation of the management approach	See above.		
<b>GRI 411: Rights of indigenous peoples 2016</b>	411-1 Incidents of violations involving rights of indigenous peoples	There were no incidents of violations involving the rights of indigenous peoples during the reporting period.		2
<b>Human rights assessment</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	70		
	103-3 Evaluation of the management approach	70		
<b>GRI 412: Human rights assessment 2016</b>	412-1 Operations that have been subject to human rights reviews or impact assessments	100% of our operations have been subject to human rights reviews or impact assessments.		
	412-2 Employee training on human rights policies or procedures	61		

GRI Standards	Disclosure	Page/URL	Omission	SDGs
<b>Supplier social assessment</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	70		
	103-3 Evaluation of the management approach	70		
<b>GRI 414: Supplier social assessment 2016</b>	414-1 New suppliers that were screened using social criteria	71		5, 8, 16
	414-2 Negative social impacts in the supply chain and actions taken	71		5, 8, 16
<b>Socioeconomic compliance</b>				
<b>GRI 103: Management approach 2016</b>	103-1 Explanation of the material topic and its Boundary	72, 73		
	103-2 The management approach and its components	20		
	103-3 Evaluation of the management approach	20		
<b>GRI 419: Socioeconomic compliance 2016</b>	419-1 Non-compliance with laws and regulations in the social and economic area	During the 2021/2022 crop year, we received minor fines for noncompliance with laws and regulations. The most severe of these fines was not for noncompliance with laws and regulations, but due to a difference in interpretation between the tax authorities and the company. We rate as “possible” the likelihood of a successful outcome in these legal proceedings.		16



# Credits

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