



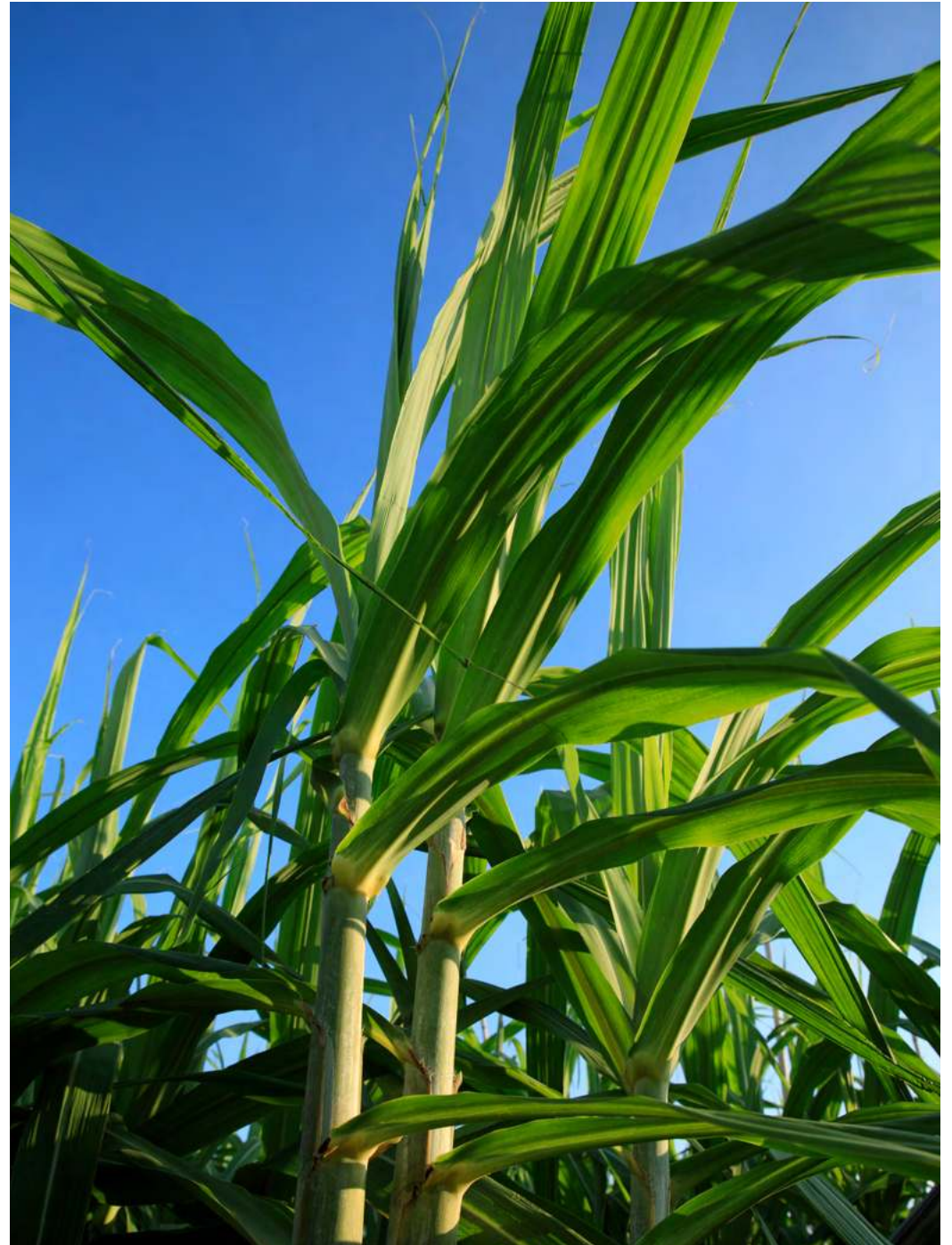
SUSTAINABILITY REPORT

OUR 2024 JOURNEY



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A Message from Our President

Reflecting on the past year, I am proud of ASR Group's strides in advancing sustainability. Despite challenges, our commitment to becoming the most sustainable and ethical cane sugar company remained unwavering.

We set ambitious goals, such as reducing Scope 1 & 2 emissions by 50% by 2030 and achieving net zero by 2050. These targets, validated by the Science Based Targets initiative (SBTi), marked a significant achievement for ASR Group and reinforced our dedication to credible and impactful sustainability efforts. Emission intensities of yielded products showed both improvements and declines across various regions. Overall, CO₂ emissions exhibited a positive trend towards reduction after peaking last year, highlighting our ongoing commitment to reducing our carbon footprint.

Our decarbonization and resource conservation efforts were substantial. We made significant investments in third-party verification of our sustainability claims and addressed new Canadian legislation requiring increased supply chain transparency and measures to combat forced and child labor. Recognizing the critical role of soil in our supply chain, we intensified our Sustainable and Regenerative Agriculture programs on our owned lands, which represent a small portion of our sourcing. These initiatives were essential for maintaining soil health, the foundation of our agricultural production. We plan to extend these efforts to our third-party suppliers.

We prioritized full supply chain visibility for ethically produced ingredients, including raw sugar, by adhering to standards like Bonsucro, FairTrade and Vive. This supported responsible sourcing, sustainable farming, fair labor, and environmental stewardship. Collaborating with certified suppliers strengthened our supply chain and supported communities and ecosystems.

Understanding that sustainability is an ongoing journey, we are committed to the well-being of our planet and its inhabitants, and will continue to innovate, collaborate, and contribute to a more sustainable future.

We are ASR Group, making life sustainably sweet for future generations.



Luis Fernandez

President & Chairman of the Board



Luis Fernandez

President & Chairman of the Board



EXECUTIVE SUMMARY

Since we published our FY23 Sustainability Report, we've continued to **deepen our understanding of our impact on the world around us.**



OUR JOURNEY 2024

Since publishing our FY23 Sustainability Report, we gained a deeper understanding of our global impact and enhanced our mitigation efforts. Building on our data-driven sustainability approach and clean technology integration, we integrated sustainable development principles into our daily activities, raising awareness and advancing our sustainability goals.

This year, we adapted to regulatory changes, engaged with ratings platforms, and increased transparency, reshaping sustainability management and contributing to a more sustainable global economy.

Key initiatives included:

- Enhancing carbon footprint models to target key emission sources.
- Completing certification and validation programs for comprehensive socio-economic risk assessments.
- Innovating packaging designs to meet needs and expectations.
- Surpassing disclosure requirements.
- Defining transition strategies for a low-carbon economy, biodiversity conservation, and resource circularity, with a focus on water stewardship.

We also made significant progress in resource conservation and decarbonization efforts, with updates on carbon and energy performance at key refineries. Our commitment to transparency and ethical sourcing was reinforced through third-party verifications and compliance with new legislation.

This report covers our work in FY24 (October 2023 - September 2024) and aligns with developing legislation's disclosure requirements.

Our Ambitions and Progress

Our sustainability strategy outlines comprehensive objectives and commitments, primarily based on a 2012 baseline¹. Our programs align with several principles of the United Nations Sustainable Development Goals (UN SDGs):

click to learn more 



RESOURCE CONSERVATION AND CIRCULARITY

Ambition Pillar: Governance, Communication and Reporting

Goal: Seek third-party review of our governance mechanisms to strengthen our approach

Progress:

FY24 Status:

- GreenCircle validation: 80% of business units
- pLCA review conducted by Sustainable Solutions Corporation
- ISO Critical Review underway

Goal: Report regularly to our stakeholders

Progress:

FY24 Status: Published FY23 Sustainability Report

Goal: Engage consistently with customers, NGOs and ASR Group's leadership through stakeholder activities

Progress:

FY24 Status:

- FY22 Materiality Assessment
- Active collaboration with NGOs and certification bodies
- Frequent interactions with customers

¹ With the exception of our Waste Goals, that are based on a 2021 baseline.

² Total Recordable Incident Rate

click here to close pillar details 

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ASR Group Sustainability Report 2024



ABOUT ASR GROUP

ASR Group is **the world's largest cane sugar refining company.**

Corporate Overview and Brands

ASR Group International, Inc. (ASR Group) is the world’s largest cane sugar refining company. Headquartered in West Palm Beach, Florida, ASR Group operates in the United States, Canada, the United Kingdom, Portugal, Italy, Mexico, and Belize and employs approximately 6,500 people.

For part of FY24, the report’s coverage period, ASR Group was jointly owned by Florida Crystals Corporation (FCC) and Sugarcane Growers Cooperative of Florida. During the last quarter of FY24, FCC became the sole owner of ASR Group. Despite this change, FCC and ASR Group maintain separate boards, so the governance in this document will not be amended. ASR Group continues to operate as a separate legal entity, and this report is restricted to its business.

Our brand portfolio includes:



OUR FAMILY OF BRANDS



Our History: At a Glance



Our Value Chain



FARMING

Our value chain starts with sugarcane, a tall grass that thrives in tropical and subtropical climates and matures in 12 months. Sugarcane is grown by smallholder farmers, farming groups, and large estates, then delivered to local mills for processing. Farming operations are managed by either independent farmers or the mills.

MILLING

Sugarcane processing begins at the mill, located close to farms to ensure freshness. Mills process sugarcane into raw sugar, which is either sold directly to consumers (if produced in a food-grade mill) or sent to refineries for further processing. Our mills in Mexico and Belize produce food-grade sugar for direct consumption.

REFINING

Our refineries in the U.S., Canada, the UK, Portugal, Italy, and Mexico process raw sugar from our mills and third-party mills. The refining process transforms raw sugar into various products, including granulated, liquid, brown and powdered sugars.

PACKING

Products are packaged and shipped to both industrial and retail customers. Industrial customers also receive products in bulk.

TRANSPORT AND LOGISTICS

Our sugar is transported using trucks, railcars, barges and ships.



VISION & STRATEGY

We aspire to be **the most sustainable and ethical sugarcane company in the world.**

Vision and Strategy

We aspire to be the most sustainable and ethical sugarcane company in the world. To achieve this, we focus on six key areas:

click each box



DECARBONIZATION

RESOURCE CONSERVATION AND CIRCULARITY

Shift from “cradle to grave” to “cradle to cradle” practices, ensuring nothing is wasted and everything is reusable.



SUSTAINABLE AGRICULTURE

SUSTAINABLE AND ETHICAL SUPPLY CHAIN

Promote ethical practices while building capacity at the local level to support communities.

EMPLOYEE AND COMMUNITY ENGAGEMENT

Develop an engaged workforce and support local communities and businesses.

GOVERNANCE, COMMUNICATION AND REPORTING

Empower stakeholders to execute our vision and demonstrate transparency through effective governance and communication.

To achieve our vision, we formed a sustainability taskforce of engineers, managers, and our Chief Sustainability Officer (CSO). To maximize resources and efficiency, the team identified three project tiers, each with clear cross-functional and multi-departmental roles and responsibilities.

Transitional Risk: Materiality Assessment

ASR Group conducted two Materiality Assessments.

The first, in FY18, identified stakeholder priorities to align our vision with global expectations. In FY22, we conducted a double materiality assessment, evaluating stakeholder expectations, perceived financial impact, and environmental impact potential.

The study's results identify our transition risks and opportunities according to the Task Force for Climate-Related Financial Disclosures' (TCFD) guidance. By identifying these risks, we understand our business' sensitivity to legislative changes, technology advancements, market demands, and reputational damage.

Please refer to the Appendix for the Materiality Assessment Methodology and scale categorization.



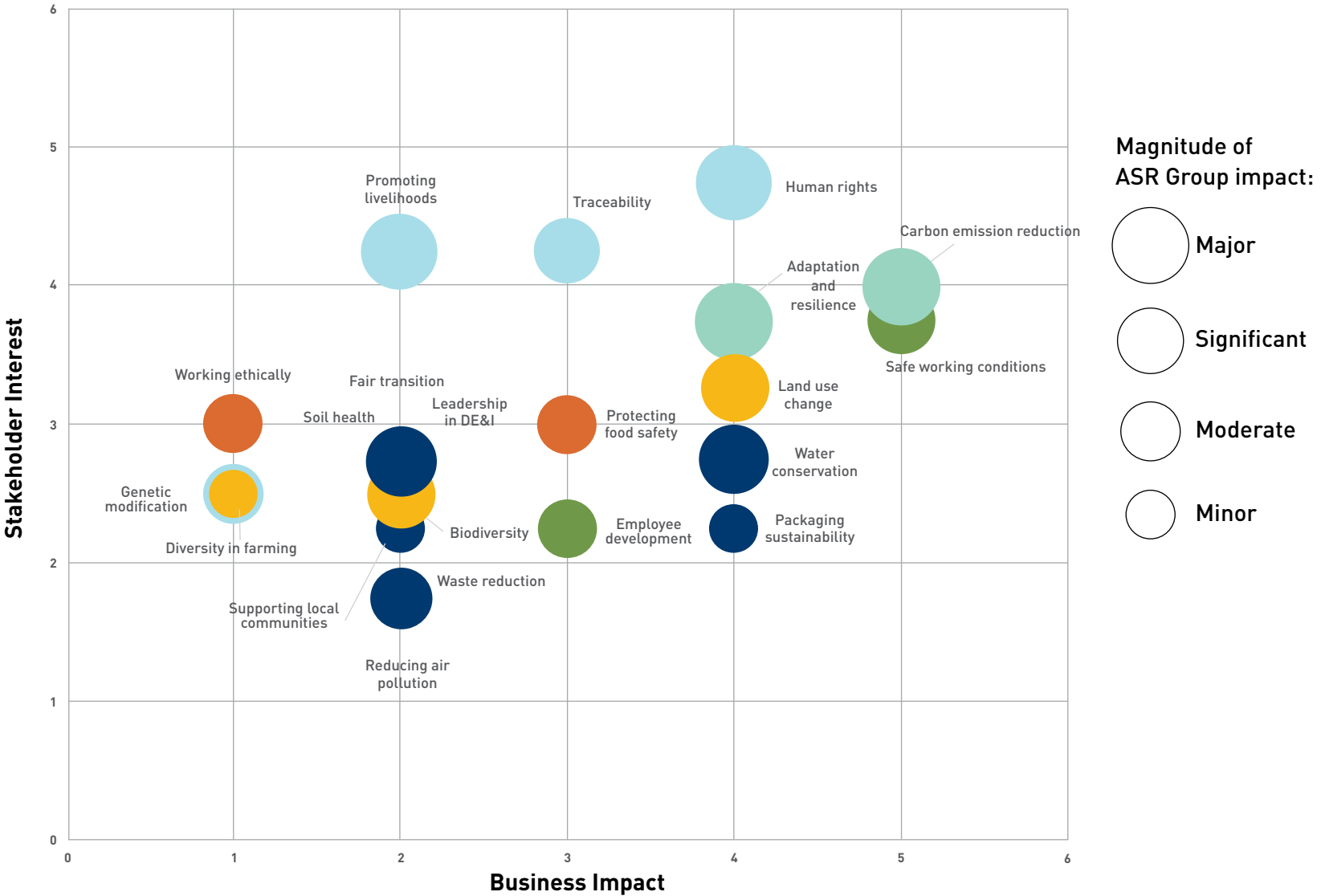
Materiality Assessment

Materiality Matrix

The following is a multi-dimensional graphic display of relevant attributes and programmatic considerations:

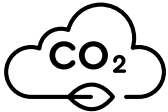
Topics are grouped in the following subject clusters:

- Climate change
- Resource conservation
- Sustainable and regenerative agriculture
- Sustainable and ethical value chains
- Employee and community engagement
- Governance



Materiality Assessment

The exercise identified climate change as ASR Group’s principal material risk, along with five subordinate material themes:

Theme	Understanding	Strategy
Greenhouse Gas Emission Reduction 	Greenhouse gas (GHG) emissions are part of every stage in a product’s creation. GHGs are released through our activities, as well as those of our suppliers, logistics and service providers, customers, consumers, and waste treatment providers.	ASR Group’s short-term strategic focus is on scope 1 (direct emissions) and scope 2 (indirect influence from utility companies). We plan to enhance our understanding of scope 3 (all other indirect emissions) and their impact on our products’ embodied carbon.
Human and Labor Rights 	Respecting human rights is essential for the sustainability of our operations, supply chain, and products.	ASR Group engages with third-party social standards such as Fairtrade, ProTerra, Bonsucro, SEDEX, and VIVE to ensure human and labor rights are respected throughout our value chain. We aim to increase sugarcane yields on our lands and third-party lands by implementing sustainable agriculture practices and collaborating with growers, thereby improving livelihoods, soil health, and community prosperity.
Safe Working Conditions 	The health and safety of our employees and suppliers are essential for sustainable operations.	ASR Group focuses on comprehensive onboarding and job specific trainings for all new employees and encourages safety engagement through site and personal discussions. We emphasize the importance of health and safety with our value chain partners through published policies, self-certifications, and customer auditing and verification programs.
Adaptation and Resilience 	As the climate becomes more unstable, ASR Group must balance ecological and economic systems.	ASR Group is developing innovative and adaptive programs that focus on both short- and long-term resilience.

Materiality Assessment

Theme	Understanding	Strategy
Land Use Change and Land Management 	Markets and legislation expect farming entities to implement sustainable and regenerative agriculture programs alongside reforestation and afforestation activities. Human activities can impact soil in two ways : they can cause adverse effects or help create equilibrium in the active carbon cycle.	ASR Group aims to understand this delicate balance and promotes behaviors and practices that foster harmony.
Supplier Traceability and Transparency 	Transparency and traceability are crucial in our supply chain to ensure ethical and sustainable practices.	ASR Group's Ethical Sourcing Policy, Code of Ethics and Business Conduct, and Supplier Code of Conduct are publicly available on our website. We require our operations and those of our suppliers to undergo third-party social audits to address health, safety, environmental, labor, and human rights issues. Our goal is to achieve full transparency to the mill level by 2025.

Conclusion

The outcomes highlight near-term impacts driven by policy and legal demands, market pressures, technological advancements for low-carbon transitions, and brand / reputational sensitivities.

The principal material themes identified were carbon emissions reduction and value chain decarbonization, aligning with ASR Group's priority objective and SBTi commitments.

Materiality Assessments will be repeated every three to five years to ensure alignment with local and international community expectations. ASR Group reviews the results annually to ensure priorities align with stakeholders' concerns and are strategic and optimal.

The study did not consider long-term climate pattern shifts or scenarios, necessitating an additional physical risk evaluation to meet all disclosure demands.

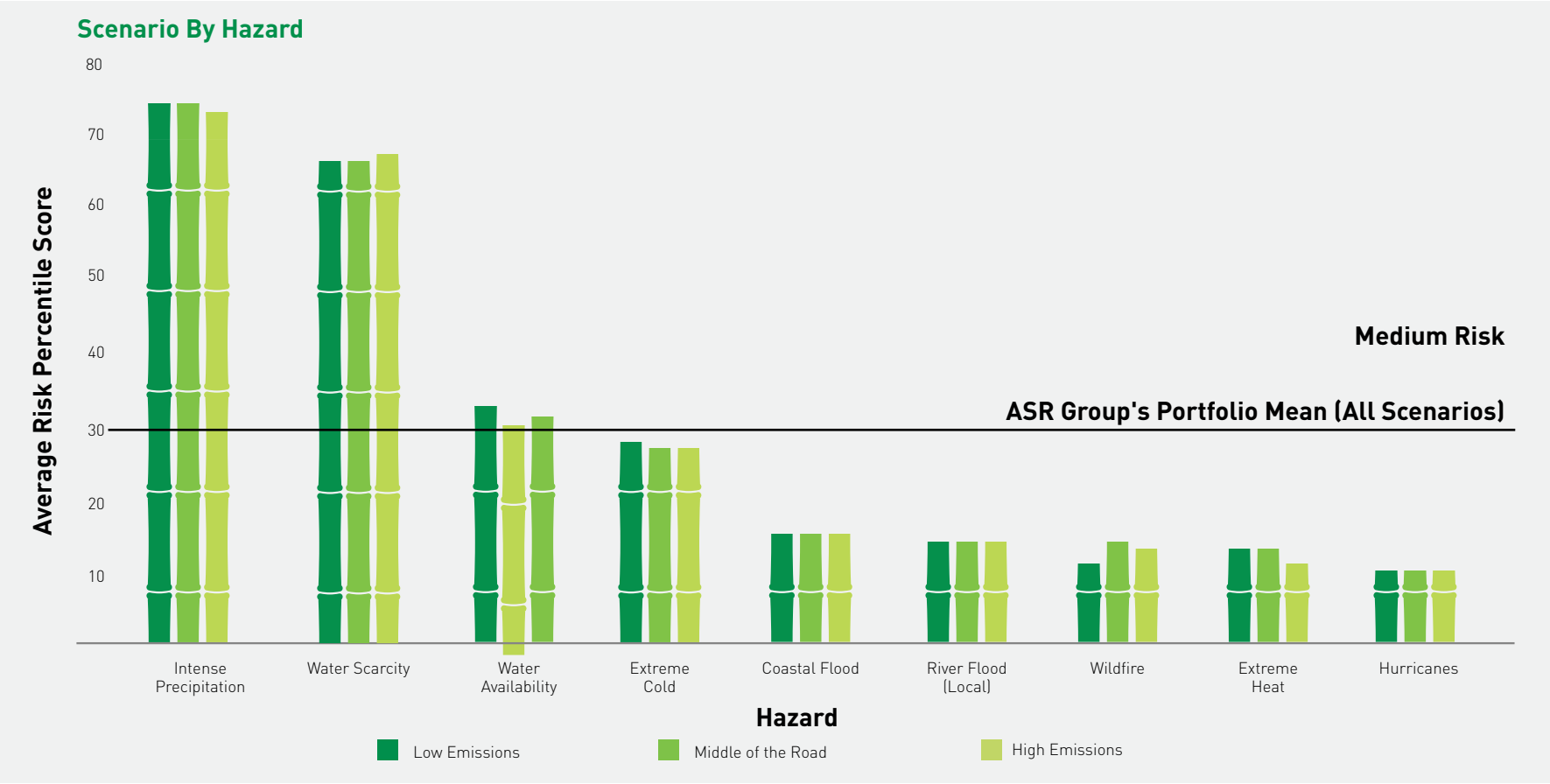
Physical Risk

In FY23, ASR Group engaged ClimateAI to conduct a scenario analysis of climate risks to our physical infrastructure (including refineries, mills, non-refinery operations and corporate offices) and our primary supply chain (raw sugar). The study, covering a time horizon to 2100, focused on chronic risks (consistent shifts in weather patterns) but also considered acute risks. Assumptions and potential outcomes may change as we refine our understanding and analysis. Please refer to the Appendix for the scenario analysis methodology.

Scenario Results: ASR Group Sites

ClimateAi calculated relativistic risk scores by comparing the impact on owned assets versus climatically comparable sourcing groups within the company value chain (third-party mills). The overall exposure risk from climatic pattern shifts at ASR Group sites is low, consistent across the foreseeable future and various emissions scenarios.

The most likely hazards are water scarcity and periods of intense precipitation. The following chart illustrates the increased likelihood of various hazards affecting ASR Group’s portfolio assets under three emissions scenarios evaluated through 2030:



³ Exceptions are coastal floods and hurricanes, as percentiles are only calculated for regions likely impacted by these risks (e.g., coastal flood risk excludes mountainous regions where this risk doesn’t apply).

Physical Risk

Scenario Results: ASR Group's Value Chain

Our value chain is projected to be at a low risk through the first half of the century. However, from 2050 onward, the risk level is expected to increase to medium. Many regions may experience high-risk conditions and negative climatic impacts sooner, requiring intervention and climate adaptation.

Opportunities

- Strategic Sourcing:** To conduct the Resiliency Assessment, ClimateAi grouped approximately 280 mills in ASR Group’s sourcing network into 20 “climatic clusters.” Approximately 20% of clusters are predicted to see positive impacts within existing growing regions through 2040, while another 35% are expected to see little change. By strategically sourcing from these regions, we can reduce the burden of sustained or increasing production demands due to population expansion.
- Sustainable Programs:** We can develop sustainable agriculture or industrial innovation programs to adapt to regional climactic stressors. This approach enables the entire value chain, from customers and producers to government and international support programs, to collaborate on priority objectives. Implementing these measures can significantly benefit product yields and resilience.

Conclusion

- Risk Assessment:** While the collective risk remains low into the distant future, 14% of mill clusters are identified as medium or high risk by 2040 due to expected negative impacts from climate change. We need to focus on these regions to identify and implement adaptive measures to address water stressors, rising temperature, and increased storms.
- Regular Review:** Physical risk considerations will be reviewed regularly.

Level of impact compared to the baseline decade (2010-2019)	2020s	2030s	2040s	2050s	2060s
Number of clusters expecting significant negative impact of more than -10%	2	5	7	11	11
Number of clusters expecting some negative impacts (-5 to -10%)	0	3	3	2	2
Number of clusters that will see little change (+/- 5%)	14	9	7	3	3
Number of clusters expecting some positive impact (+5% to +10%)	3	2	1	0	2
Number of clusters expecting significant positive impacts of more than +10%	1	1	2	4	2



DECARBONIZATION

We aim to be **the lowest carbon-emitting sugar company in the world.**

Our Decarbonization Approach



In line with our commitment to the Paris Agreement and our sustainability strategy, we established climate-related metrics and targets for the short-, medium- and long-term, at both an ASR Group and operating country level. We used the FLAG method (Forest, Land and Agriculture) to set science-based targets for sectors involving land use.

Our objectives are to⁴:

Short- and Medium-term:

**Reduce scope 1 & 2 emissions
by 50% by 2030**

**Eliminate all scope 1 & 2 emissions
to become carbon neutral by 2040**

Long-term:

**Eliminate all scope 3 emissions to
become Carbon Net Zero by 2050**

We aim to achieve these objectives through the following strategies:

- Optimize Best Management Practices (BMPs)
- Implement low-carbon economy projects and reconfigure processes
- Validate products' carbon footprints for disclosure
- Transition to alternative fuel sources and green energy mixes
- Implement waste circularity programs
- Employ innovative technologies
- Utilize carbon sequestration and reuse technology
- Implement sustainable agriculture "removals"
- Prioritize low-carbon supply chain partnerships
- Collaborate with carbon-setting standards organizations
- Train direct suppliers on sustainability strategies:
 - Carbon accounting
 - Green energy transitions
 - Process reconfiguration
 - Innovative technology employment
 - Alternative fuel usage
 - Waste circularity program implementation

Updated Decarbonization Targets Aligned with SBTi Standards

- **SBTi Approval:** Our objectives and action plan were officially approved by the SBTi.
- **Baseline Year Update:** Initially set to 2012, updated to 2022 for SBTi compliance.
- **Target Adjustments:** Our public targets now show a 42% reduction by 2030 and 90% by 2050. These targets reflect changes due to shifting the baseline to 2022 emissions, segregating FLAG emissions, and adding Scope 3 goals. While SBTi requires a 90% reduction, we commit to offsetting the remaining 10% to achieve "Net Zero,"

consistent with our previous objectives.

- **Reporting:**

- In ASR Group's CDP filing, we will maintain the 2022 baseline for accuracy in pursuing our goals.
- Despite the baseline update, our Sustainability Reports will continue to use the 2012 baseline for consistency in storytelling to our customers and to keep the targets as a generalized benchmark with additional mid-term goals.

⁴ From a 2012 baseline

Decarbonization Transparency

Global Goal: Ensure each product has a published, transparent carbon footprint intensity (product life cycle) to inform customer and consumer choices.



SBTi Validation: SBTi validated our targets in December 2024, available on their [website](#).



CDP Scorecard: Update annually since 2016, available under [“ASR Group Int.”](#)

Product Life Cycle⁵

Breakdown of our sugar’s carbon footprint⁶: % of our GHG emissions



⁵ Methodology available in the Appendix.
⁶ From the global perspective with non-attributable categories.

Value Chain Product Life Cycle Analysis (pLCA)

The value chain product life cycle analysis follows our product's carbon footprint as it moves through each step in the supply chain⁷. We provide a pLCA report for each region in the Appendix⁸.

Sources of our carbon emissions:

Sugarcane Cultivation

- Fertilizer production and decomposition (releases nitrous oxide).
- Fuel used in agricultural machinery.
- Land use / above & below ground carbon stock changes (positive or negative)
- Land management activities, including cultivation and tilling practices.
- Emissions from employee commutes, business travel, and procurement of maintenance materials and chemicals.

Transportation of Sugarcane to the Mill

- Combustion of fossil fuels in transportation vehicles.

Sugarcane Manufacturing

- Combustion of fuels to generate steam and electricity for milling processes.
- Use of chemicals and other inputs; fugitive emissions from refrigerants.
- Treatment of solid waste and wastewater.
- Emissions from employee commutes, business travel, and procurement of packaging materials, maintenance materials and chemicals.

Transportation of Raw Sugar to Refining Plants

- Combustion of fossil fuels in shipping vessels and trucks.

Sugar Refining

- Combustion of fuels to generate steam and electricity.
- Use of chemicals and other inputs; fugitive emissions from refrigerants.
- Treatment of solid waste and wastewater.
- Emissions from employee commutes, business travel, and procurement of packaging materials, maintenance materials and chemicals.

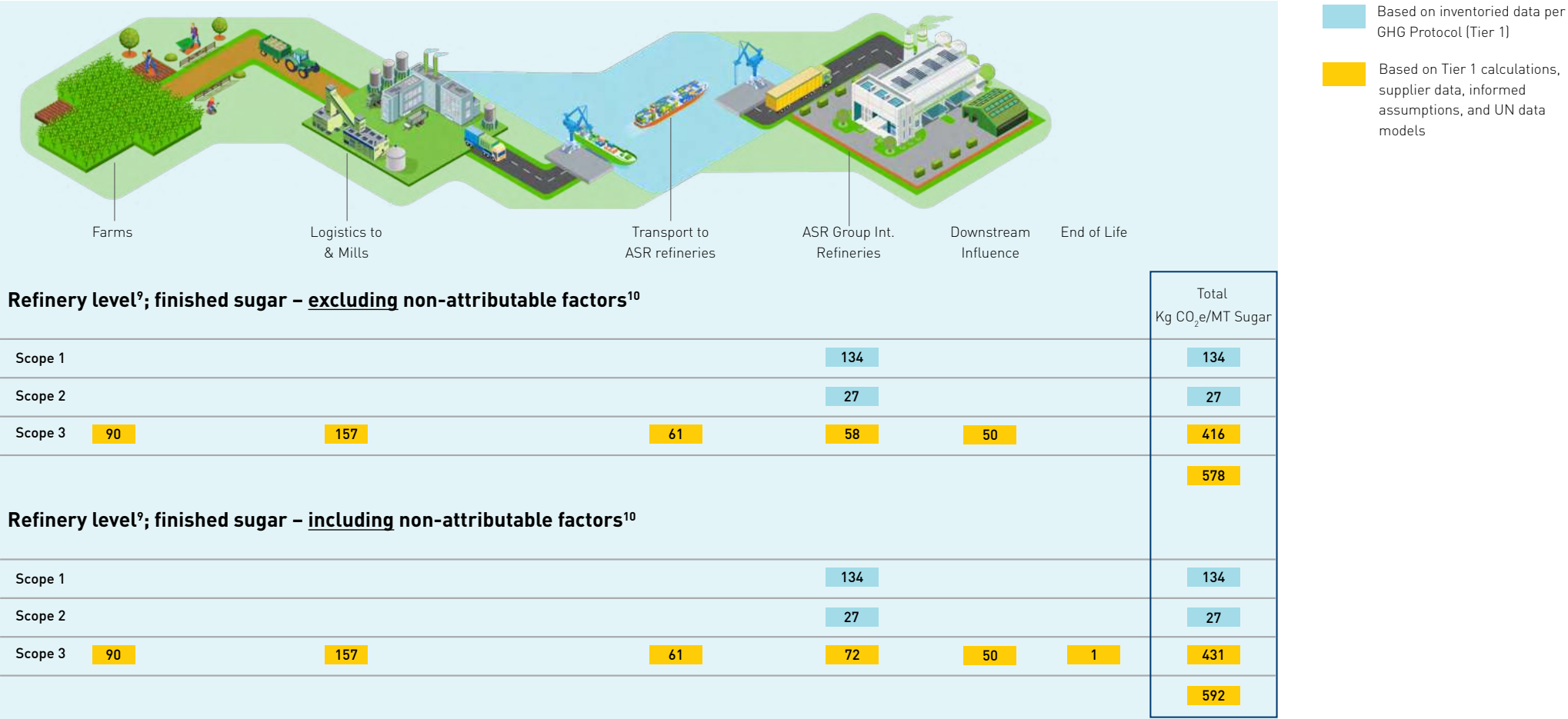


⁷ Not all categories of scope 3 influence have been calculated; please refer to page 91 for a heat map outlining the current program maturity.

⁸ The revised FY22 pLCA for each region is available in the Appendix. We updated the previously published FY22 pLCA to reflect our operations equity boundary, instead of the previously reported operational boundary.

Farm to Refinery Gate pLCA for ASR Group FY24

The following graphic depicts our product’s carbon footprint as it moves through each step in the supply chain. We provide a pLCA report for each region in the Appendix.



⁹ “Farm” breakdown by percentage in both tables, in accordance with SBTi FLAG Standard, included in the Appendix.

¹⁰ Please refer to page 92.

Scopes 1 & 2: Our Operations

ASR Group owns and operates facilities across the sugar value chain from farms to refineries.

Our carbon reduction program is the most mature in our owned operations where we have the most influence and control. We have been measuring and reducing our impact since 2012, with significant carbon savings already made as we focused on:

- Expanding the use of and efficiently using biomass at our mills in Mexico and Belize,
- Experimenting with alternative fuel changes at our refinery in Brindisi.

We are now moving into an accelerated phase with three priority workstreams:

1. Optimization of best practices across ASR Group globally
2. Identification and integration of known best-in-class technologies not within our portfolio
3. Investigation and development of emerging technologies



Operational reliability is essential for reducing ASR Group's carbon footprint.

We achieve this through continuous improvement and predictive maintenance programs by:

- Leveraging advanced predictive maintenance techniques, such as vibration analysis, to proactively identify and address potential equipment failures.
- Minimizing downtime and implementing technological enhancements like variable frequency drives (VFDs), digital flow monitoring, and digital twinning.
- Focusing on reducing energy usage, optimizing start-ups, and efficiently managing water and steam.

We set a 3% annual reduction target at all sites, driven by Facility Managers and Sustainability Engineers through reliability programs and process optimization. Site leadership teams are responsible for reaching this goal, with sustainability engineers acting as change agents.

We are implementing energy efficiency projects to produce previous product volumes using less energy, which is crucial for reducing CO₂ emissions.

Alongside these projects, we optimize asset energy usage according to industry best practices.

From FY28 through FY40, we will implement large innovative infrastructure projects aimed at transforming our processes with modern and efficient production technologies. These projects will focus on capturing and reusing waste heat and water vapor.

Any remaining emissions will be addressed by switching to renewable energy or implementing carbon capture technologies, utilizing appropriately sized next-generation powerhouses. Our Research and Technology team is already studying the feasibility of these solutions.

FY24 Progress

From FY23 to FY24, we achieved a 3% total decrease in Scope 1 & 2 emissions, resulting in a total reduction of 18% since the FY12 baseline.

This progress is attributed to our ongoing energy management best practices program and energy efficiency projects.

We are progressing toward our reduction goal by enhancing energy efficiency, improving processes, and optimizing equipment reliability. These actions help us use less energy and reduce CO₂ emissions.

Additionally, we have adopted energy management practices to optimize steam and electrical energy usage by implementing industry-standard technical measures.

Energy Management Best Practices:

- Steam system management
- Compressed air management
- Energy toolkit

Energy Efficiency Projects:

- LED lighting
- Energy-efficient compressor system
- Insulation projects
- Energy-efficient motors and VFDs

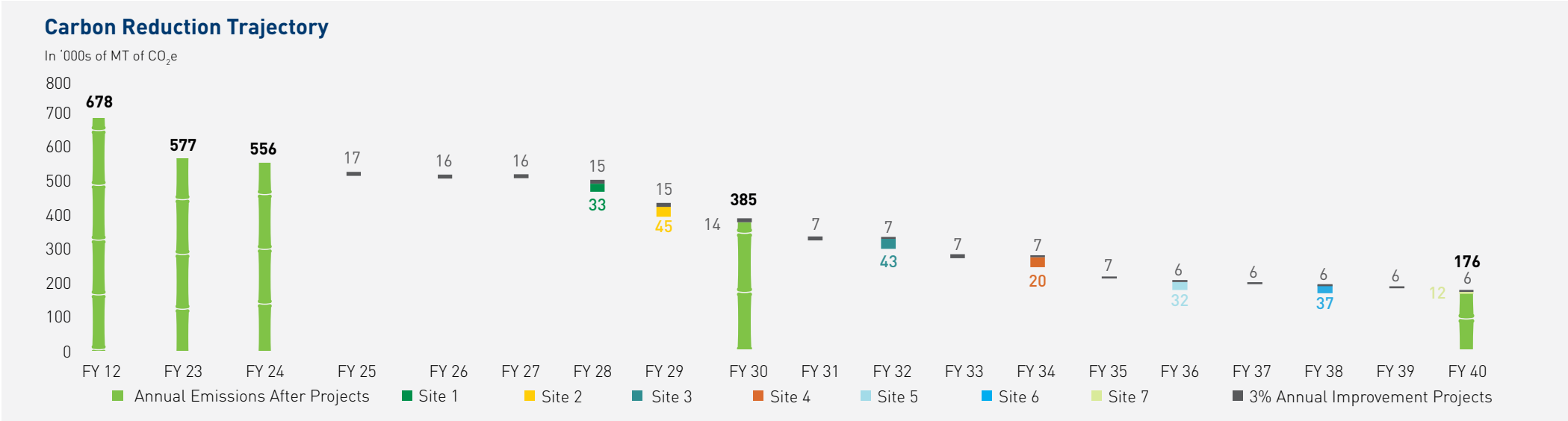


FY24 Progress

Our decarbonization efforts are ongoing and have been partially implemented in certain operations. These efforts include:

Monitoring and Controlling:	Energy Efficiency and Process Improvement:	Reliability Optimization:	Energy Management Practices:
- Implementing tools to track and correct inefficiencies in powerhouse, steam distribution, and condensate recovery. - Conducting energy meetings to monitor impacts, correct deviations, and drive improvement. - Quickly addressing processes that counteract energy optimization efforts.	- Reducing steam usage by reconfiguring the boiler house. - Reinstating boiler economizers. - Replacing steam drives with electrical drives. - Installing new compressors with heat recovery technology. - Optimizing steam use during non-running days. - Improving processes to decrease energy consumption by increasing evaporator efficiency and throughput, and reducing product recycling.	- Replacing energy-generating and process equipment, including boilers, controls, heat exchangers, and centrifuges. - Overhauling steam turbines and generators in certain cogen plants.	- Optimizing the steam distribution system by fixing failed steam traps, increasing condensate return, and reusing all available condensate. - Evaluating online monitoring of steam distribution to promptly replace faulty traps. - Upgrading electrical systems with energy-saving technologies, such as LED lighting, VFDs, and regenerative braking drive centrifuges.

Our Scope 1 & 2 strategy is depicted in the graph below. Based on our current reduction trajectories, we will narrowly miss our FY30 target. Therefore, we need to devise additional initiatives to achieve our goals of becoming carbon neutral by 2040 and Net Zero by 2050. Individual sites' net GHG emissions are included in the Appendix, broken down into Scope 1, 2 and 3 emissions.



OUR GOALS IN ACTION



ABOVE: Director of Energy Purchasing Quintin George

BELOW: Sustainability Manager Alessandro Sindoni



Yonkers' Strategic Energy Partnership Continues to Reduce our Carbon Footprint

The Yonkers Refinery is advancing its sustainability goals and increasing efficiency through a partnership with Con Edison, resulting in significant energy efficiency modernizations.

Con Edison, one of the largest energy companies in the U.S., incentivizes customers to reduce natural gas usage and provides solutions to meet New York's benchmarks. Companies implementing energy efficiency projects receive rebates to fund improvements.

Quintin George, Director of Energy Purchasing, identified the program and recognized its fit with our continuous improvement principles. He received the 2022 Employee

Excellence Award for his dedication to forming the partnership with Con Edison in 2020.

The sustainability and engineering teams identify areas for improvement, design projects, calculate energy savings, and submit applications, then implement projects and collect data for weeks to determine the rebate.

Since the partnership began, the Yonkers Refinery completed 12 projects, with four more in progress, resulting in a reduction of almost 2 million therms of energy. Due to the partnership's success, Con Edison invited ASR Group to join a Strategic Energy Partnership (SEP) to guide a series of energy efficiency projects.

Projects include:

- Eliminating direct steam use in white sugar production, saving 250,000 therms of natural gas per year.
- Using modern heat exchangers and condensers in the pan liquor evaporator project, achieving a 9% energy reduction (1.3 million therms).
- Granular activated carbon scrubber heat recovery project.
- Introducing new energy tool kits to identify and eliminate energy loss.

"It is rare to find a program that is so mutually beneficial," said Sustainability Manager Alessandro Sindoni.

Agriculture and Milling Activities

Agriculture decarbonization is a unique and complex challenge due to its nature as a living system with intricate mapping and tracking requirements.

Please refer to the Sustainable Agriculture section of this report for more details.

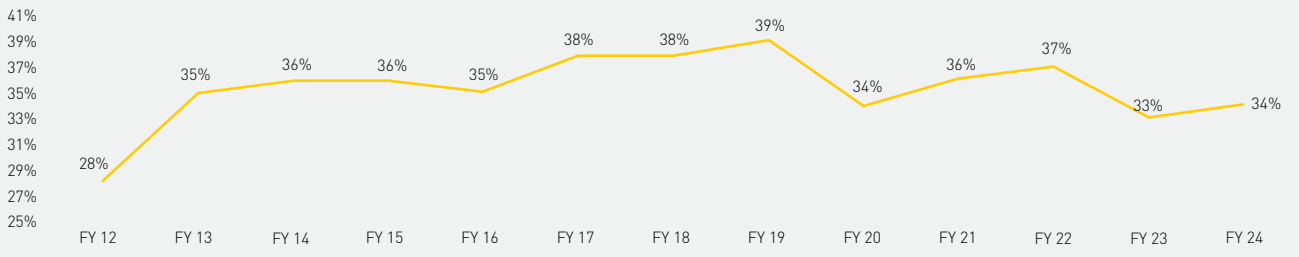


Renewable Energy in Our Operations

Most of the energy for our operations is generated at our cogeneration plants, which use combined heat and power from various sources to provide efficient electricity and process heat. The energy mix varies by facility type and location.

- Our Mexico and Belize mills use sugarcane fiber (bagasse).
 - Our Brindisi Refinery uses ethically sourced certified biofuel.
- In FY24, 34% of our net energy production came from renewable sources, used as steam and electricity in our processes.

Renewable Energy Produced



Renewable Energy refers to energy derived from sources that naturally replenish themselves over time (biomass). Renewable energy can be used for various applications, including electricity, heating, cooling, and transportation.

Green Electricity is a subset of renewable energy that specifically refers to electricity generated from environmentally friendly and non-polluting sources.

We export surplus power to surrounding grids.

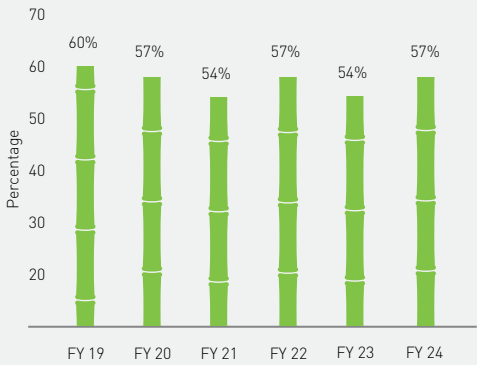
In FY24, we supplied over 296,000 MWh of electricity to municipal utility systems.

- More than 267,000 MWh of this electricity came from renewable sources.
- This green energy is enough to power approximately 25,000 U.S. homes for a year¹¹.
- Our green energy offsets to the grid increased by 6% from the previous year.

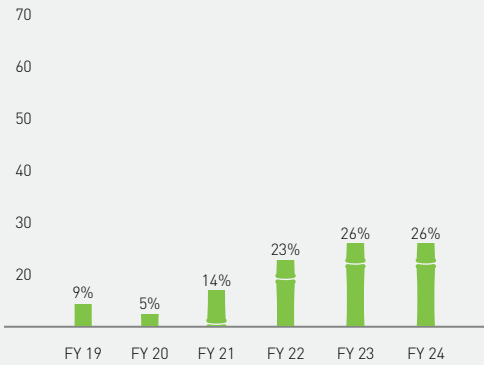
Most of the electricity we sell is green, but this does not reflect our purchases or consumed electricity. We are working to increase the green electricity we receive from utility providers.

- Our Plaistow and Thames facilities purchase 100% green electricity.
- 60% of the electricity purchased by the Crockett refinery in California was green through Marin Clean Energy’s Light Green Electricity program.

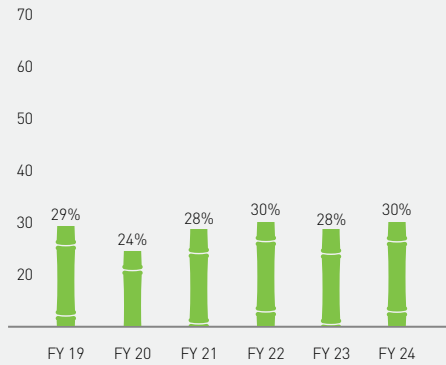
Green Electricity Generated



Green Electricity Purchased



Green Electricity Consumed



¹¹ According to the Energy Information Administration in 2022, the average annual electricity consumption for a U.S. residential utility customer was 10,791 kilowatt-hours (kWh), or an average of about 899 kWh per month.

OUR GOALS IN ACTION

Electric Trucks for Product Delivery

To achieve our goal of being carbon neutral in London by 2040 for Scope 1 & 2 emissions, we are focusing on operational efficiency projects, increasing the use of renewable fuels, and transitioning our vehicle fleet to alternative energy sources.

We recently completed a pilot project using electric trucks to deliver products from our UK factories to external warehouses. Over three weeks, an electric truck saved 1.125 tons of CO₂ emissions compared to a diesel vehicle. The truck used 2.8MWh of electricity and charged at Go-Ahead bus garage using their super-fast chargers during the day.



In appreciation of Go-Ahead's support, we donated £1,000 to [Transaid](#) and the Royal Docks Activity and Learning Centre (RDLAC) in their name.

The truck travelled around 1,000 miles between our Thames Refinery, Plaistow Wharf factory, and external warehouse. Although electric trucks carry about 10% less cargo by weight due to their heavier batteries, we can mitigate this by transporting bulkier, lighter products or using trucks with smaller batteries. Following the pilot's success, we are collaborating with our hauler partners to determine how best to apply these learnings moving forward.

[Learn more here](#)



Ongoing Partnership with HGi Technologies

Our partnership with HGi Technologies in the U.S. drives efficiency and sustainability. HGi Technologies, a long-time supplier, partners with PrintReleaf to plant trees based on the number of pages printed by its customers. For every 8,033 pages printed, a tree is planted. Since 2020, this has resulted in 67,900 trees reforested.

HGi Technologies also ensures copiers are

recycled through Ricoh, contributing to a circular economy and zero waste to landfill. We are reducing paper use by limiting personal printers and encouraging the use of larger copiers.

"We share a responsibility to replenish natural resources," said Blake Siemon, HGi Technologies President. "Our ideals align with our customers."

Scope 3: Third-Party Operations

Our partners across the value chain, particularly raw sugar suppliers and freight operators, produce significant emissions. While we do not directly control these impacts, we recognize our role in working with our suppliers to create a sustainable value chain.

Collaboration with Standard-Setting Organizations

We collaborate with standard-setting organizations, such as Fairtrade and Bonsucro, to share and develop best practices for sugar producers. This collaboration is one of the many ways we support our suppliers in assessing emissions, decarbonizing, and mitigating climate change impacts. Examples of initiatives we have been involved in include:

- Measuring the carbon footprint of several suppliers in Belize, Eswatini, Fiji, Costa Rica, Mauritius, and El Salvador with Fairtrade.
- Participating in the funding of the Climate Cane Toolkit developed by Bonsucro.

Raw Sugar Origins

Raw sugar is transported from mills to our refineries worldwide in bulk, ocean-going ships. By engaging with our service providers, we gather detailed information on freight movements and fuel consumption. Understanding the shipping channels used allows us to minimize transit distances and reduce our carbon footprint.



Production Gate to Consumer

In the U.S.

Over the past six years, we have actively participated in the EPA SmartWay program, maintaining a consistent performance rating. By collaborating with select shipping partners and the EPA, we have advanced our GHG measuring and monitoring tool, allowing us to benchmark against our peers and uphold high standards.

During this period, the percentage of road freight shipped through SmartWay carriers in the U.S. increased from 82% to 93%, placing ASR Group above the average of our SmartWay Partner Peers, which is currently below 90%. We continuously raise awareness of the program among our freight partners.



Over the past year, our total SmartWay carrier pool reached 60 participants. Their involvement helps us move freight sustainably while measuring and benchmarking their sustainability efforts.

In Canada

Redpath Sugar increased the percentage of road freight shipped through SmartWay carriers from 62% to 90% over the

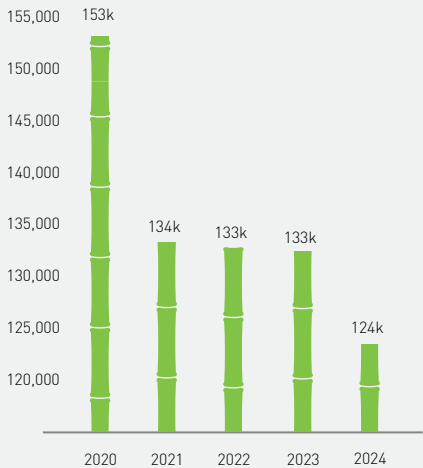
past four years, a 28% growth as a program shipping partner.

In Mexico

Ingenio San Nicolas was one of 13 companies recognized by the Mexican Ministry of Environmental and Natural Resources with the ‘Distinguished Recognition Award’ in 2023. In 2024, Ingenio San Nicolas improved its environmental rating from “very good” to “excellent” while earning the ‘Distinguished Recognition Award’ for the second consecutive year. These achievements are due to ISN’s continuous participation in the ‘Transporte Limpio’ (‘Clean Freight’) program and its commitment to using the most sustainable carriers.

We distinguish and monitor our outbound sales from internal product transfers (Stock Transfer Orders (STOs)) between our sites. We aimed to reduce STOs by 25% by 2025 compared to our FY21 benchmark and have already achieved a 26% reduction. This success is due to improved planning, freight mode shifts, and route optimization. By identifying more efficient routes and transportation modes, we prioritize direct-to-customer shipments, eliminating the need for stops at third-party warehouses.

U.S. Supply Chain Freight CO₂e



Logistics Manager
Renaldy Tapia



RESOURCE CONSERVATION & CIRCULARITY

Our goal is to become **a cradle-to-cradle company.**

Our Resource Conservation and Circularity Approach



Our Resource Conservation and Circularity strategy, based on the circular economy framework, aims to reduce waste and pollution, keep products and materials in use, and regenerate natural systems. Guided by our Materiality Assessment and understanding of our processes, we focus on three primary categories: **Water Management and Reuse, Waste Minimization and Circularity in Use,** and **Post-Consumer Packaging Recyclability.**

Water Management

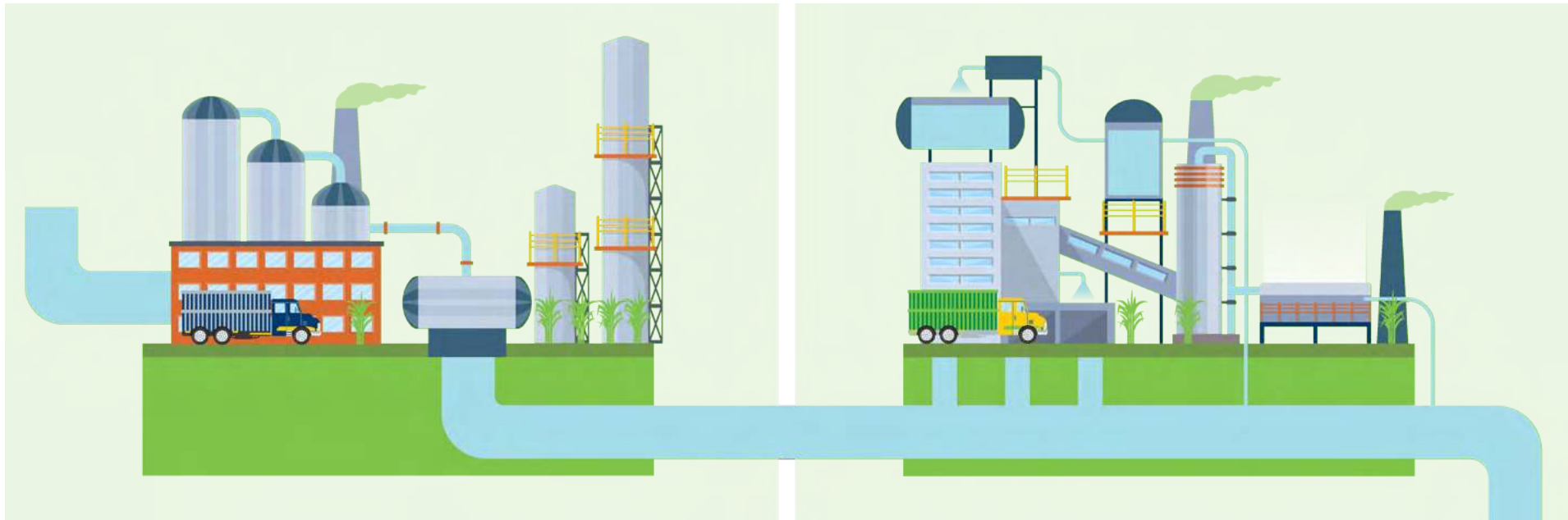
Water flows through our milling and refining processes in the following ways:

→ Entry:

- Non-contact cooling - Surface water is used in sugar's recrystallization process without physical interaction.
- Multi-purpose/utility - Water purchased from utilities is used in boilers, cleaning, and consumption.
- Sugarcane (Mill only) - Water released from the sugarcane during grinding is reused in the process.

Exit: →

- Directly returned to watershed - Non-contact cooling water passes through the process without significant alteration.
- Discharged to treatment plants - Water used to clean process equipment.
- Lost to evaporation - Primarily as vapor during sugar crystallization and from other water-based cooling systems.
- In our products - Found in liquid sugars and syrups.



Wherever possible, we reuse water, such as converting steam back into water through condensation. We continue to develop systems to minimize water demand.

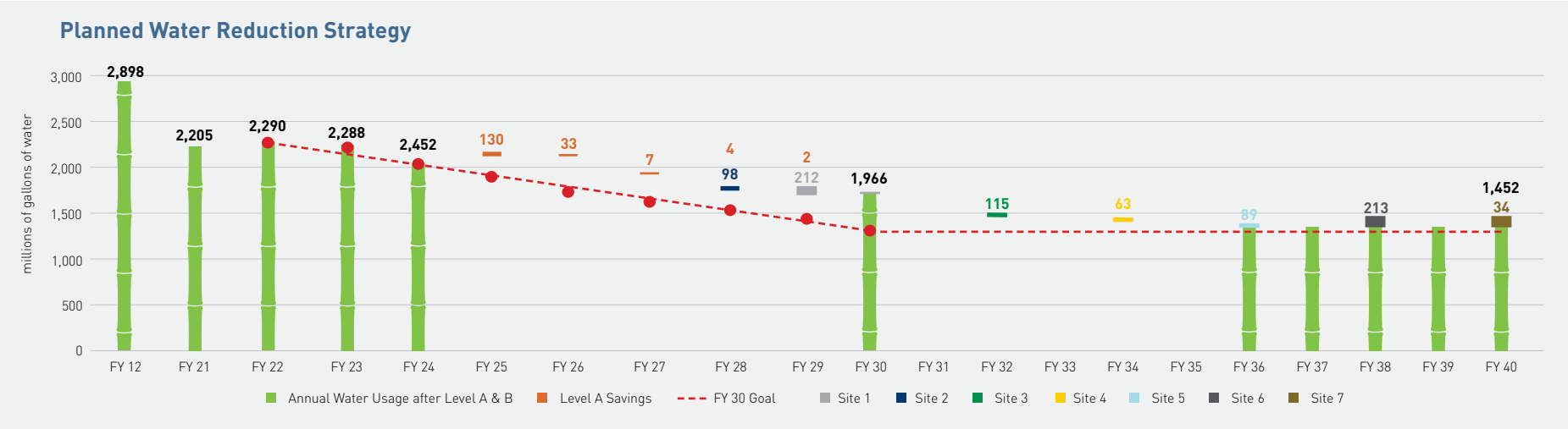
Potable Water Usage & Wastewater Treated

Our goal is to reduce our potable water usage by 55% by 2030.

In FY24, some sites faced powerhouse difficulties, causing energy imbalances and increased water demand due to more steam generation and lower condensate return loop efficiencies. As a result, we are behind our target. However, we expect significant water savings as we improve infrastructure reliability.

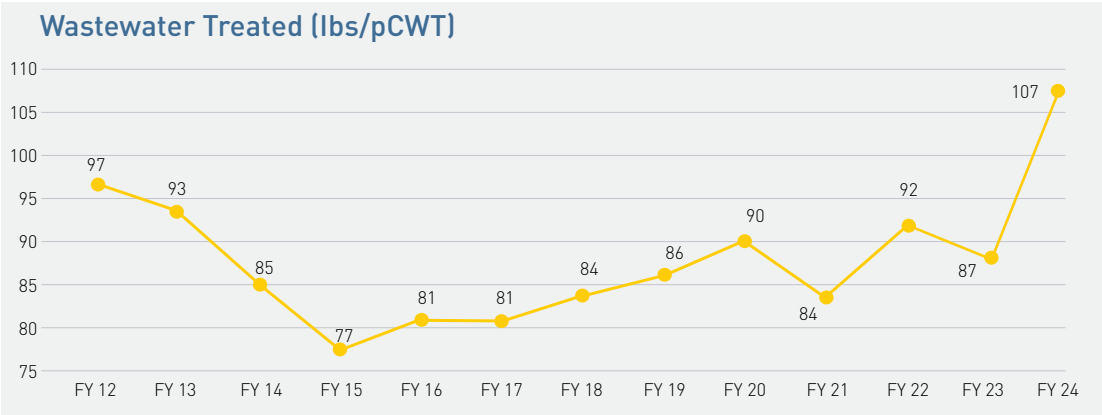
To advance water reduction, we plan to re-evaluate and redesign our systems with a focus on water conservation. We will continue to refine this strategy as we identify site-level opportunities.

While our priority has been reducing carbon emissions, many carbon-reduction projects will also reduce water usage, which is not yet reflected in the chart.

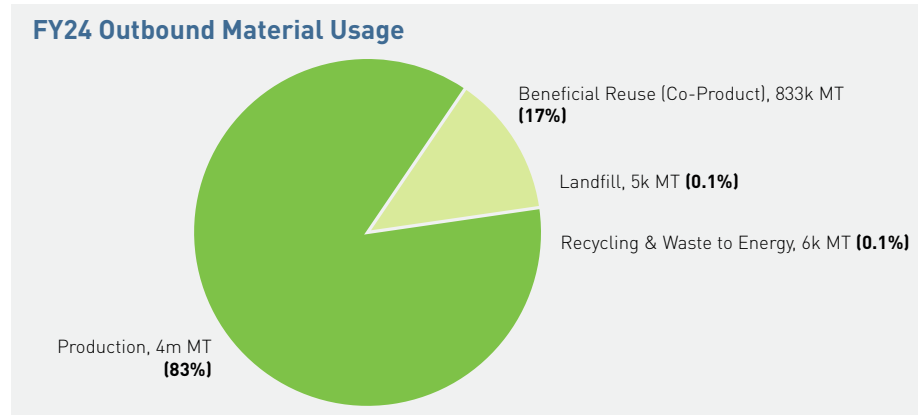


Wastewater treatment plays a crucial role in our water reduction strategy by reducing the need for fresh water and enhancing overall efficiency. We aim to minimize our wastewater discharge, focusing on:

- Water consumption tied to evaporative loss
- Water consumption tied to wastewater discharges



Advancing Toward Zero Waste



ASR Group closed fiscal year 2024 with a 99.4% waste diversion rate from landfills.

We continue to make incremental improvements toward our target of 100% diversion by 2030. Only 0.1% of our outbound materials are sent to landfills. The remaining materials are comprised of our products, co-products, and those directed to various reuse and recycling pathways.

In FY24, we consolidated waste and recycling services for the U.S. Non-Refinery Operations (NRO) under a new vendor aligned with our goals. This partnership aims to improve recycling efforts and increase landfill diversion.

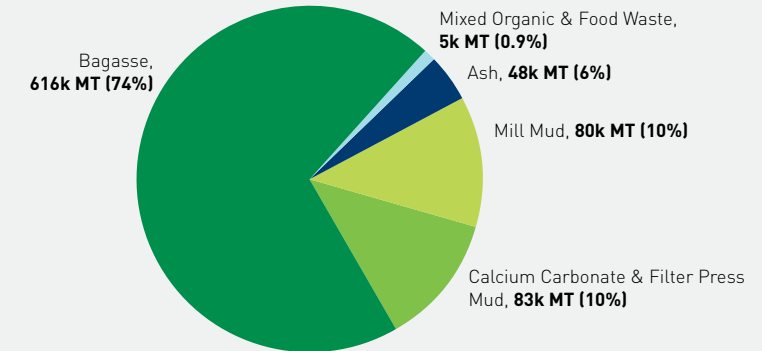
We conducted a comprehensive analysis of our FY24 waste profile, noting a 14% decrease in waste generated, normalized to production. Waste accounts for only 0.23% of all materials leaving our facilities, with 82.64% consisting of production materials and 17.13% directed to beneficial reuse and co-product pathways.

Reducing Our Waste

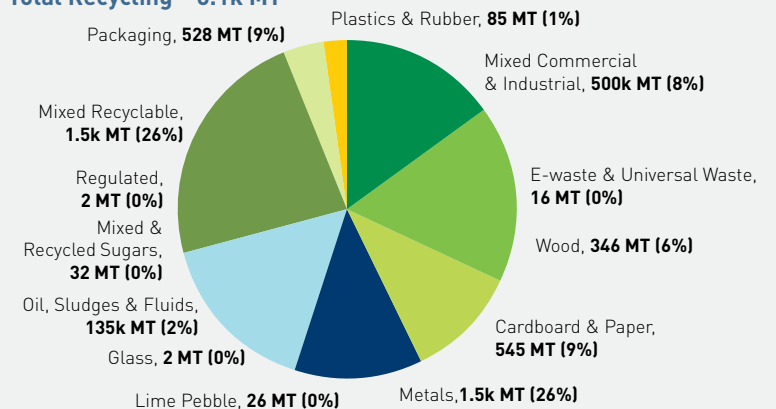
Our waste reduction process requires partnerships with local service providers and enhancements to waste infrastructure at various levels. By collaborating with waste management partners, we aim to better understand significant waste contributors and redirect waste toward beneficial reuse pathways, minimizing recycling and landfill losses.

Since 2012, our collaboration with waste management providers has allowed us to develop a comprehensive data set. In FY24, we consolidated our waste management partnership for NROs. In FY25, we will evaluate the impact of these changes and seek similar partnerships at other locations. Additionally, we work with manufacturers to find alternative uses for materials used in our operations, aiming to divert waste from landfills.

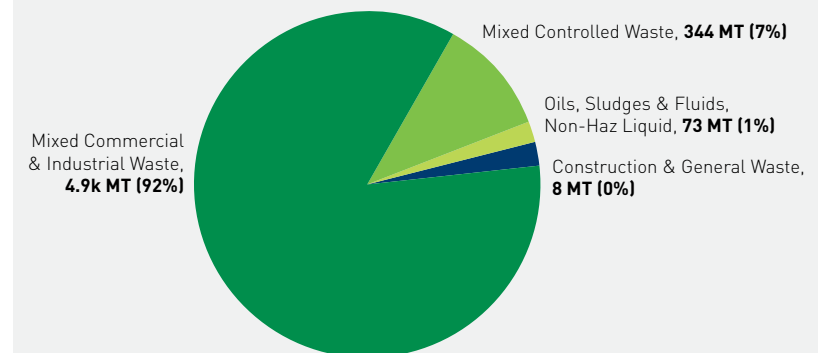
Total Beneficial Reuse – 833k MT



Total Recycling – 6.1k MT



Total Landfill – 5.3k MT

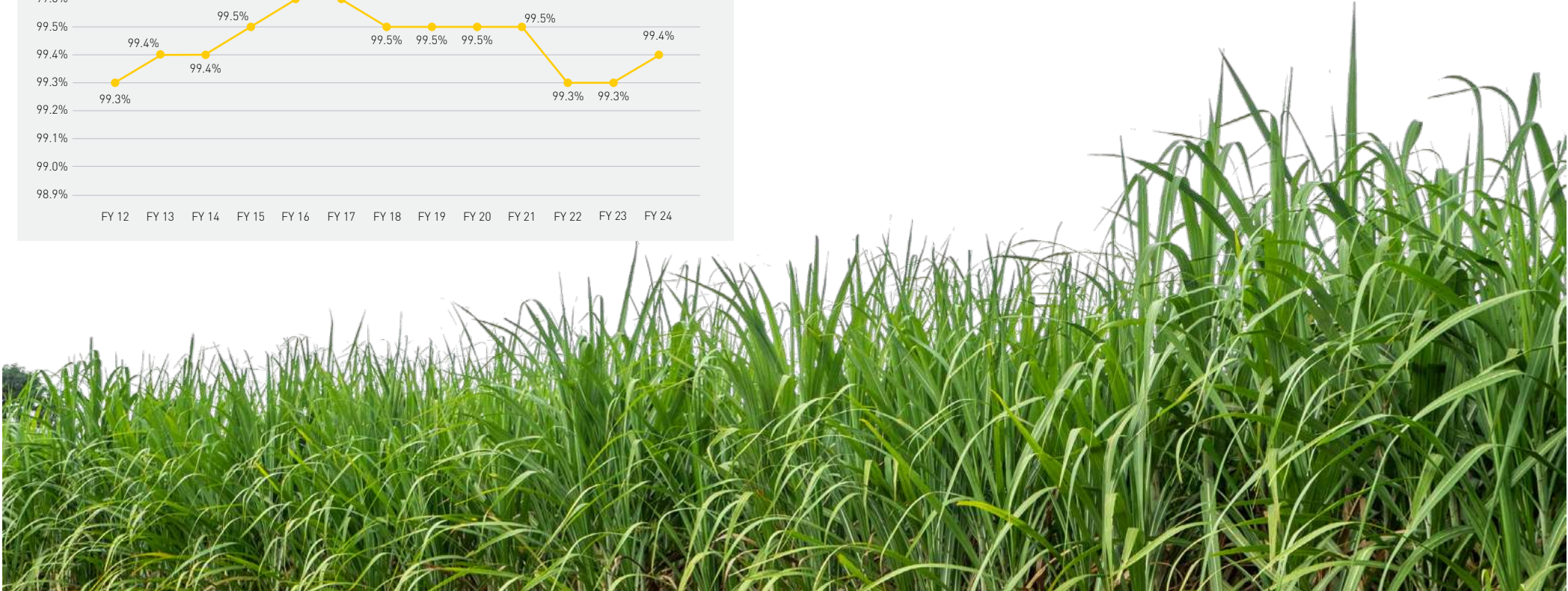
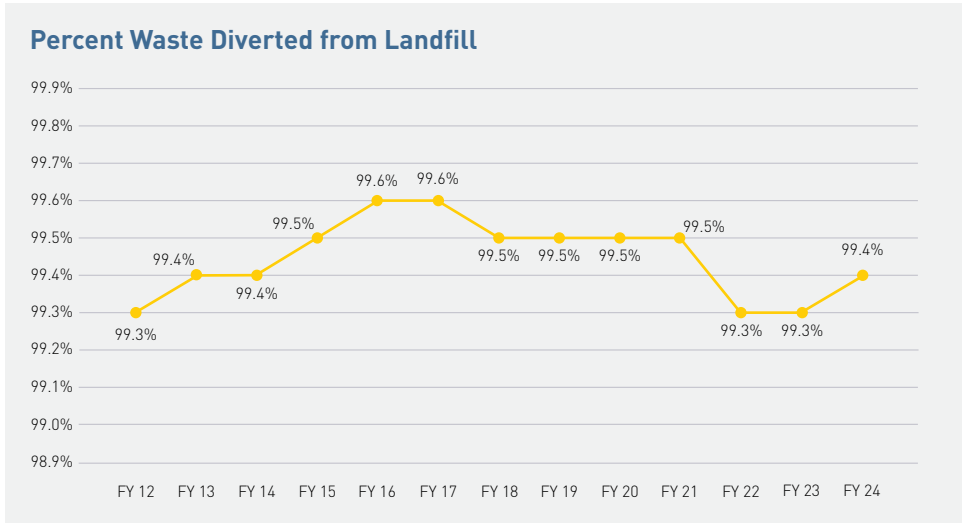


Company-Wide Recycling and Waste Effort

Solid Waste Minimization

Our objective is to decrease our total solid waste stream, normalized to production¹², by 25% by 2030, compared to FY21 baseline data, while maintaining our zero-to-landfill accomplishments.

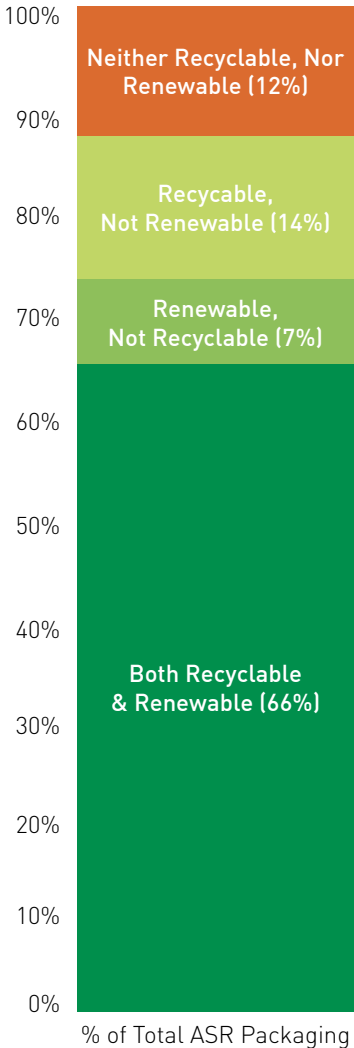
Our current focus is to improve data granularity to identify opportunities for improvement and to design projects guided by the “Zero Waste Hierarchy.” We are refining this strategy with the support of our site-level teams and service providers.



¹² Excluding land applied/beneficial reuse muds and ash.

Reducing Our Packaging

Through the packaging sustainability program launched in FY18, we focus on enhancing the sustainability of our packaging based on three key pillars:



1. Material Reduction

Our packaging makes up only 2% of the net weight of our products, which is much lower than the average in the food industry. Despite this, we are dedicated to finding even thinner, lighter, stronger materials to further reduce packaging use and waste.

2. Sustainable Packaging

Our goal is to ensure that 100% of our packaging is reusable, recyclable, or renewable by 2035, with faster timelines in some regions.

In FY23, we merged the first two pillars of our strategy to focus on the four Rs of packaging sustainability: Reduce, Reuse, Recycle and Renewable. This approach helps us achieve our packaging sustainability objectives and communicate our efforts effectively.

By the end of FY24, 88% of our packaging by weight met this assessment across the U.S., Canada, Mexico and Europe.

We are proud members of the how2recycle® and on-pack recycling label programs. In FY24, we expanded our recycling communication on our Domino®, C&H®, and Florida Crystals® packaging in the U.S., particularly for our granulated sugar products’ recyclable large paper bags initiative. On-Pack Recycling communication for our Redpath® packaging in Canada, and our Tate & Lyle® and Lyle’s® packaging in the U.K. will continue to grow as we implement further improvements.

We also developed the following initiatives to advance our packaging sustainability program:

Initiative	Estimated Result	Impacted Regions
Recyclable Large Paper Bags	- Achieved “Widely Recycled” designation in the US 4.1k MT of packaging converted from non-recyclable to recyclable - Continued work into FY25 to expand designation into Canada and the United Kingdom	United States, Canada and United Kingdom
Retail Plastic Bag Structure Change	- Continued to work through FY24 - Anticipated project completion FY25 89 MT converted from non-recyclable to recyclable	United Kingdom
Paperboard Carton Removal	47% packaging reduction for our 500g Icing Sugar products	United Kingdom

Reducing Our Packaging

3. Adapting to Legislation



We recognize the rapid changes in packaging-related legislation and the need to adapt accordingly. Government-mandated packaging programs in countries like Canada and the U.K., as well as specific states in the U.S., require producers to pay for their packaging's waste handling. We are focusing on the post-consumer impact to design for the circular economy, stay ahead of customers' expectations, and ensure conformance with regulations. Additionally, we are continuously improving our data infrastructure to enhance reporting accuracy and our ability to adapt to the evolving landscape.

Developed Co-Products



ASR Group is dedicated to advancing the circular economy by conserving finite natural resources and minimizing waste in our processes.

Our sustainable packaging company, Tellus, based in Belle Glade, Florida, uses a proprietary blend of domestically and globally sourced plant fibers to create compostable packaging solutions that help reduce plastic waste. Our innovative products include plates, bowls, takeout containers, and trays—designed to displace traditional plastic packaging in the market.

We take pride in Tellus' responsible supply chain. Every product is manufactured, packaged and shipped from Florida, ensuring local insight and quality control. Furthermore, Tellus exclusively partners with reputable fiber suppliers who ensure transparent and sustainable sourcing practices.





SUSTAINABLE AGRICULTURE

We are committed to implementing **the most innovative ecological practices.**

Our Sustainable Agriculture Approach



Our Sustainable Agriculture program is designed to maintain land health and productivity on our owned lands, while enhancing the livelihoods of local farmers and the broader community. Over time, we plan to extend these practices to our supply chain.

click each box 



Soil Health



Biodiversity



**Agroforestry
and Reforestation**



**Water Resource
Management**



**Carbon Emissions
Reduction and
Sequestration**



**Local Farmer
Engagement, Education
and Capacity Building**

Soil Health



The soil's ability to grow sugarcane is the cornerstone of our business. By focusing on soil health, we are transforming the process of growing, harvesting, and processing sugarcane. To support this transformation, we have launched several initiatives with experts to analyze growing conditions in sugarcane regions:

- **Nutrient management:** We maintain and improve soil quality as a natural resource.
- **Integrated pest management:** We manage the soil's physical, chemical, and biological properties to sustain plant growth and ecosystem functions, which helps create a healthier environment that naturally reduces pest populations.
- **Soil amendments:** We enhance soil fertility and structure.
- **Unburnt Harvesting:** We do not burn the cane when harvesting, which helps keep the land covered, increases nutrient cycling, and improves soil habitat for biodiversity efforts.
- **Crop rotation:** We are experimenting with crop rotation cycles to sustain soil health.

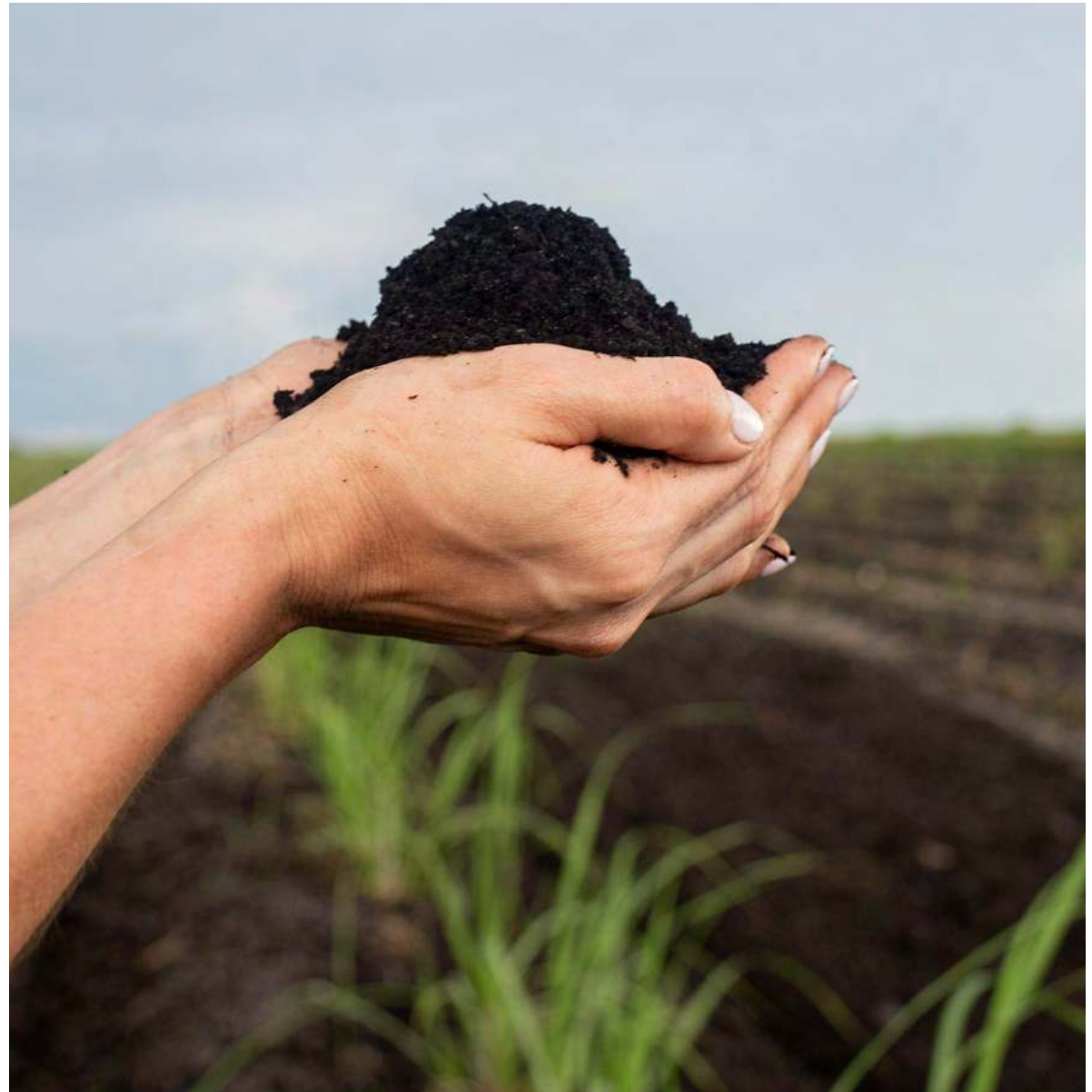
Key Initiatives

Enhancing Laboratory Capabilities: We are strengthening the technical capacity of the Hummingbird Analytical Laboratory at the University of Belize to conduct soil analysis, focusing on soil fertility, organic matter, and other agronomic testing.

Field Testing and Baseline Assessment: We are conducting comprehensive testing and baseline assessments of all owned and operated fields, focusing on soil fertility, biodiversity, and land use.

Composting Program Development: We are developing a comprehensive composting program in Belize by converting mill byproducts into fertilizer to produce nutrient-rich soil additives, enhancing soil carbon, nutrient retention, and soil structure.

Adopting Unburnt Harvesting Practices: We are transitioning to unburnt harvesting practices instead of field burning in Belize.



Biodiversity



Guided by the Kunming-Montreal Global Biodiversity Framework, the program aims to maintain or improve native species diversity in surrounding undeveloped lands compared to 2020 levels through robust monitoring, rehabilitation, and education. ASR Group has identified 21 of the 23 targets to include in our biodiversity plan.

Due to the diverse expertise required, collaborations with NGOs and public entities are essential to leverage the program's potential. By incorporating standards from ProTerra and Bonsucro, we aim to conserve biodiversity through effective environmental management. This includes developing a Biodiversity Management Plan, protecting high-value conservation areas, and prohibiting the conversion of natural ecosystems into farmland for sugarcane or other crops.

Our 2030 objectives include:

- Conducting biodiversity surveys on owned and operated land
- Setting genetic baselines for soil microbiota
- Establishing flexible, site-specific plans responsive to local needs

Our focus areas include:

- Species diversity
- Ecosystem diversity
- Genetic diversity

Our strategies include:

- Establishing protected areas
- Restoring degraded habitats
- Sustainably managing natural resources
- Addressing climate change

Incorporating standards from ProTerra and Bonsucro, we aim to conserve biodiversity through effective environmental management. This includes developing a Biodiversity Management Plan, protecting high-value conservation areas, and prohibiting the conversion of natural ecosystems into farmland for sugarcane or other crops.

Key Initiatives

Sustainable sugarcane variety development: We are developing sustainable, non-GMO sugarcane varieties using traditional breeding methods. These varieties, designed for farms in Belize, will seek to be drought-tolerant, pathogen-resistant, insect-resilient, and reduce the use of chemicals. Over the next two to six years, they will reduce costs, improve yields, and enhance climate resilience.

Optimal sugarcane variety identification: We are identifying sugarcane varieties that thrive with higher planting densities and unburnt harvesting, benefiting production in Belize and potentially Mexico. Over the next decade, these advancements will transform the sugarcane production chain.



OUR GOALS IN ACTION



ASR Group Partnered with Belize Zoo and Palm Beach Zoo for Jaguar Conservation

ASR Group partnered with the Belize Zoo and Palm Beach Zoo to promote biodiversity, conservation, and sustainability, with the help of an iconic jaguar named Ben. This collaboration, initiated by Luis Fernandez, President of ASR Group, supports jaguar preservation by providing additional support to the Belize Zoo and connecting it with the Association of Zoos and Aquariums (AZA).

The collaboration highlights keystone species like jaguars in Belize and the Florida Panther, emphasizing the importance of conservation efforts to protect these animals and their habitats. In Belize, where we source raw sugar for our Thames refinery, ASR Group adopted Ben the jaguar, a resilient ambassador for his species at the Belize Zoo. The partnership complements our Northern Sugar Industry Biodiversity Commitment, launched by BSI in commemoration of Earth Day 2024.

The partnership complements our Northern Sugar Industry Biodiversity Commitment, launched

by our supplier BSI in commemoration of Earth Day 2024. According to Mac McLachlan, BSI Country Manager, “We developed training manuals for cane farmers on the best ways to respect biodiversity while prioritizing regenerative agriculture practices that will protect ecosystems where these wonderful animals thrive.”

The commitment included:

- Assisting in the conservation of 3,100 acres of riparian wetland in the Corozal District of Belize.
- Publishing a sustainable cane farming manual, “Growing Sugarcane around Protected Areas and Biological Corridors (Harmonizing Agriculture with Nature).”
- Equipping and expanding the University of Belize’s National Soil Testing Laboratory in Belmopan to provide high-quality services for farmers.

[Learn more here](#)

BSI Country Manager
Mac McLachlan

Agroforestry and Reforestation



We are developing agroforestry and reforestation programs on our owned lands, guided by a comprehensive survey of marginal and sub-marginal lands. These programs aim to create additional economic value or repurpose these lands for reforestation projects.

Our agroforestry program is currently assessing the feasibility of intercropping plantation-style oil nut trees, scrub, grasslands with sugarcane. The assessment is being conducted at the site level, considering each site's capabilities. One of the potential uses for these alternative crops is silvopasture.

As part of our intercropping assessment, we are evaluating the feasibility of this practice. This practice may also be applied to other areas depending on the crop and its benefits.

In our reforestation efforts, we are focusing on lands that can:

- Recreate movement corridors or migration areas
- Recharge as part of a long-term crop rotation strategy
- Serve as buffers or reforested areas due to their low economic value

The goal is to integrate these programs into both natural and human communities for optimal outcomes.



Water Resource Management



We are developing a water resource management strategy that focuses on decarbonization, water use optimization, waterbody clarification, nutrient load mitigation, and other sustainable practices.

We create site-specific programs to manage natural waterways, including flowing, navigable, and standing water features, adhering to local and international standards to protect sub-surface water, groundwater, and aquifers. Our initial strategic plan focuses on reducing waste, decarbonizing pumping, and implementing precision irrigation.

Initiative Examples

Catch Basins: To enhance water clarity, we use catch basins to retain runoff or excess water on farms and other sites. This process allows sediments to naturally settle out, cleaning the water before it flows into natural waterways.

Water Flow Management: In riparian zone management, we control the flow of excess water to protect sensitive ecosystems.

Optimal Crop Variety: We select climate-optimized and drought-resistant crop varieties with varied maturation dates to reduce irrigation pressures and overall water usage.



Carbon Emissions Reduction and Sequestration



We focus on promoting and transitioning to farming practices that sequester carbon in the soil and reduce the need for high-carbon-footprint soil amendments and inputs. Our goals include:

- Reducing emissions by shortening supply chains for purchased materials and chemicals
- Adopting precision agriculture to minimize field passes
- Switching to specialized irrigation systems that use less electricity
- Eliminating diesel generators

ASR Group aims to lead in soil carbon sequestration by enhancing soil testing capabilities and changing planting and management strategies. Our practices include:

- Longer replant periods
- Targeted species and varietal selections
- Removing soil compaction layers for deep carbon storage
- Integrating green harvest practices to retain carbon in the field

Carbon Credits: ASR Group is aligning with existing and developing voluntary carbon markets to develop tracking and trading mechanisms for carbon credits on our farms in Belize, serving as a model for other producers. This includes Verra certifications and other carbon accounting methodologies.

For details on our carbon programs and calculations, refer to our Greenhouse Gas Methodology document, which we plan to make public in late 2025.



Local Farmer Engagement, Education and Capacity Building



Our goal is for all our raw sugar suppliers to be assessed against an internationally recognized social certification and/or verification scheme.

We encourage local farmers to achieve certification against internationally recognized social and environmental standards such as ProTerra, Bonsucro, SAI, and Fairtrade by providing the necessary training and resources in Belize and Mexico. Many suppliers undergo independent verification audits to address key challenges in agricultural production in developing countries.

Our strategies include:

- Developing relationships with environmental influencers
- Engaging with educational institutions
- Funding research projects
- Creating community adoption incentives

We recognize the importance of engagement and ongoing programming at both community and personal levels. One example of how we foster this engagement is by providing technical training and support to the University of Belize staff for setting up and operating the Hummingbird Analytical Lab. This lab will serve as a foundation for monitoring soil health parameters, benefiting both the sugarcane industry and the broader agricultural sector in the country.

These initiatives are crucial for the long-term productivity and sustainability of sugarcane agriculture, especially in the context of climate change and environmental conservation. Our comprehensive plan aims to maintain land health and productivity while improving the livelihoods of local farmers and the broader community.



OUR GOALS IN ACTION



Building the Adaptive Capacity of Sugarcane Farmers in Northern Belize

Sugarcane producers are among the communities most affected by climate change, facing challenges such as extreme weather events, including frequent and intense tropical storms, floods, unseasonal rains, and droughts. Low-lying Belize is particularly vulnerable to climate change, and its sugar industry is expected to be significantly impacted by climate hazards in the future.

BSI, a supplier of raw sugar to our Thames Refinery and an ASR Group mill, secured a \$25 million grant from the [Green Climate Fund \(GCF\)](#) with the assistance of the Caribbean Community Climate Change Centre (CCCCC) to enhance the industry's resilience to climate change. The grant is funding the Building the Adaptive Capacity of Sugarcane Farmers

in Northern Belize project, which aims to assist over 5,000 smallholder cane farmers in becoming more viable and resilient to climate shocks.

The project has multiple components, including developing new climate-resilient sugarcane varieties. It is also subsidizing the cost of adaptation and change for farmers who join the program, helping them adopt regenerative farming practices such as replanting and improved soil and water management. Additionally, the project aims to increase the use of mechanical unburnt cane harvesting, reducing production costs and carbon emissions.

[Learn more here](#)



SUSTAINABLE & ETHICAL SUPPLY CHAIN

We are dedicated to **protecting our natural resources and supporting the diverse communities engaged in farming, milling, and refining sugar across our entire value chain.**

Our Raw Sugar Ethical Sourcing Approach



Long-Term Goals

Our long-term goal is to refine only sustainably sourced raw sugar globally.

Over the past few years, we expanded our ethical sourcing efforts to include all procurement and supply chain vendors.

Accountability Measures

To hold ourselves accountable:

- We made our Ethical Sourcing Policy, Code of Ethics and Business Conduct, Supplier Code of Conduct, Human Rights Statement and Human Trafficking Policy publicly available on our [website](#).
- We require our operations, and seek to require our suppliers, to undergo third-party social audits to address health, safety, environmental, labor and human rights issues.

Challenges in Developing Nations

Many of the sugar-producing countries from which we source our raw sugar are developing nations. These regions often face challenges such as widespread poverty, low education levels, and limited social support for vulnerable populations. The sugar industries in these countries are often the backbone of local communities and play a crucial role in their economies. We recognize that sourcing sugar from these regions brings specific risks and responsibilities.

Our Role and Commitment

As a major buyer of raw sugar, we strive to use our influence to eliminate unethical practices while building capacity at the local level to support these communities.

Our commitment to “Ethically Sourced and Grown” means:

- That our raw sugar comes from suppliers who are independently assessed by third-party experts against reputable, internationally recognized social standards.
- Aiming for 95% of our raw sugar to be sustainably sourced by 2035.

Ethical Sourcing Criteria

Adopted 14 years ago, our ethical sourcing process focuses primarily on our raw sugar supply chain, with efforts expanding to other supply chains. This process ensures our suppliers comply with ethical and environmental standards.

Adherence to Policies: ASR Group requires its suppliers to adhere to the Supplier Code of Conduct (the “Code”) and certify ongoing compliance with its standards throughout the commercial relationship. Suppliers must conduct business without abusing or exploiting any persons and respect fundamental human rights as outlined in the United Nations Universal Declaration of Human Rights.

Self-Assessment: Suppliers complete annual self-assessment questionnaires (SAQs) via the Supplier Ethical Data Exchange (Sedex) platform to evaluate compliance with our Ethical Sourcing Policy. Sedex provides a system for collecting and analyzing information on ethical practices along supply chains.

Certification and Audits: We encourage certification against standards such as ProTerra, Bonsucro, SAI, and Fairtrade. Many suppliers undergo independent verification audits against ProTerra, addressing challenges in agricultural production in developing countries. Our goal is for all our raw sugar suppliers to be assessed and certified against recognized standards.

It is our goal that all of the sugar we buy meets one of the following criteria:

1. Certified by a recognized social standard (Bonsucro, Proterra or Fairtrade), with all chain of custody requirements fulfilled.
2. Certified by the Farm Sustainability Assessment (FSA) or any-FSA benchmarked standard, along with an audit report of the mill within the prior 12 months against the SMETA (4 pillar) standard.
3. Supplied by a mill assessed against the Proterra Verification standard.

Remediation and Support



Our social auditing program identifies risks in our raw sugar supply chain, guiding our remediation efforts. Non-compliant suppliers must submit a Corrective Action Plan (CAP) with a specific timeline. We ask suppliers to address the root cause of non-compliance and assign a team to implement corrective actions.

To build an ethical and resilient supply chain, we collaborate with financial institutions, NGOs like the Inter-American Development Bank, Proforest and Fairtrade International, as well as our direct customers.

In recent years, we've launched programs in Belize, Brazil, Mexico and the Philippines, in partnership with some customers, to:

- Improve human rights practices in the sugarcane industry
- Prevent and eradicate forced and child labor
- Foster workplace health and safety
- Promote agricultural best practices
- Provide financial support to local communities

These programs enhance sustainability and support the livelihoods of small landholders in the sugarcane industry.

OUR GOALS IN ACTION



Convening to Support Producers on Human Rights Issues - Brazil

Using income from the Bonsucro Credit Trading Platform, the Bonsucro Impact Fund (BIF) supports projects that promote sustainable sugarcane production. One such project, cofounded by ASR Group, Barry Callebaut, General Mills, The Hershey Co., and Nestlé, and led by Proforest and the Brazilian NGO, Imaflora, aims to improve human rights practices in the sugarcane industry.

The Human Rights Spotlight project focuses on developing a comprehensive Human Rights Due Diligence (HRDD) toolkit. This toolkit guides mills through the due diligence process and provides practical tools for interpreting the UNGPs and OECD guidelines.

The project also includes in-person and online training sessions and fosters a network of trained professionals.

By empowering sugarcane mills, smallholders, and service providers with the necessary knowledge and tools, the project seeks to create a more sustainable and ethical sugarcane sector, improving human rights practices across the industry.

[Read Bonsucro's Outcome Report](#)

OUR GOALS IN ACTION



Responsible Sourcing from Small Farmers in the Philippines

In 2024, the Responsible Sourcing from Small Farmer (RSS) in the Philippines Sugar Sector Program in North Negros Occidental celebrated its eighth anniversary. ASR Group marked its sixth year of partnership with Nestlé, Proforest, and the Sugar Industry Foundation, Inc. (SIFI).

Since its inception, the program has supported around 4,300 farmers from 102 Agrarian Reform Beneficiary Organization (ARBO) groups, covering nearly 3,300 hectares. Each year, selected ARBOs receive active support from RSS.

In 2024, the program focused on:

- Enhancing farming practices and working conditions for small farmers.
- Improving capacity and access to inputs and services for sustainable sugarcane production.
- Facilitating alternative livelihoods and support.
- Emphasizing sugar cane yield improvements.

In 2024, 34 ARBOs received active support and monitoring. The RSS project covered 1,014 hectares, producing over 58,000 MT of cane, which was sent to Victorias Milling Company, Lopez Sugar, and Hawaiian Philippine Company. Additionally, 10 new ARBOs were engaged during the year.

Key achievements include:

- 23 ARBOs reported no child labor incidences.
- Awareness training on the importance of using Personal Protective Equipment (PPE), with the Sugar Regulatory Administration agreeing to procure PPE for at least 1,400 farm workers.
- 15 ARBOs participated in the Comprehensive Assistance to Small Holders (CASH) for Farm Productivity, benefiting 726 farmer members through training, demo farm protocols, and technical support.
- 16 ARBOs, involving 749 small farmer members, benefited from the Productivity Aid to Groups of Small Farmers Improve their C(K)rop initiative, managing vegetable gardens in various stages.

To commemorate the program’s eighth anniversary, Nestlé and ASR Group, along with partners Proforest and SIFI, organized the “Shaping the Sustainable Future of Sugarcane Production in the Philippines” forum. Over 100 representatives from various sectors attended, sharing learnings and defining the future of sustainable sugarcane production. Rafael Vayá, Vice President of Corporate Social Responsibility, highlighted the success of the RSS project over the past eight years, noting its comprehensive approach and the desire to expand to other mills and smallholder producers.

Vice President of Corporate Social Responsibility Rafael Vayá

Our Fairtrade Commitments



In FY24, we proudly marked the 15th anniversary of our commitment at Tate & Lyle Sugars to Fairtrade. From 2008 to 2024, we paid over \$77 million in Fairtrade premiums – more than any other sugar company – supporting thousands of small-scale sugarcane farmers and their communities.

“Fairtrade is a certification system that allows us to sell [Fairtrade](#)-certified sugar and generate value for the cane farmers who participate in the program, helping to ensure better livelihoods for farmers and their families,” said Julia Clark, Director of Sugar Ethics. “Certified small producer organizations decide democratically how to spend the premiums generated from the sale of their produce.”

All smallholder cane farmers supplying our Belize Sugar Industries (BSI) sugar mill in Orange Walk are members of Fairtrade producer associations. We also buy Fairtrade sugar from Eswatini, Fiji and Paraguay.

Premiums from our Fairtrade sugars have funded projects to:

- Improve on-farm productivity
- Empower women and young people
- Enhance worker health and safety
- Prevent child labor
- Promote biodiversity

OUR GOALS IN ACTION

Celebrating 15 Years of our Commitment to Fairtrade

CREATING MORE OPPORTUNITIES FOR WOMEN

In Northern Belize, our Fairtrade premiums funded the Progressive Sugar Cane Producers Association's Female Empowerment Program. This initiative provided 60 women with comprehensive training in skills such as financial literacy.

[Learn more here](#)

ENHANCING ACCESS TO ESSENTIAL CHILD HEALTHCARE

Fairtrade premiums helped cane farmer organizations facilitate visits from healthcare professionals. This initiative significantly improves healthcare accessibility.

[Learn more here](#)

A PARTNERSHIP TO COMBAT CHILD LABOR

Collaborating with Fairtrade provides us with a robust framework to address labor issues promptly, responsibly and ethically, and ensures that we can effectively tackle child labor.

[Learn more here](#)

FOSTERING THE BOND BETWEEN FARMERS AND FORESTS

The Progressive Sugar Cane Producers Association's Environmental Challenge aims to restore natural habitats and ecosystems in Northern Belize. This initiative, supported by Fairtrade premiums, enabled the association to take significant steps in mitigating climate change.

[Learn more here](#)

REVOLUTIONIZING CONTRACTS TO BETTER PROTECT WORKERS

In Northern Belize's cane farming industry, a significant workforce is employed, especially during the harvest. Traditionally, smallholder farmers hired this skilled workforce without formal written agreements. Recognizing the need for improved practices, we launched an initiative to establish clear and accessible written contracts.

[Learn more here](#)

ENHANCING BUSINESS FUNCTIONS TO PROTECT PEOPLE AND THE PLANET

The Progressive Sugar Cane Producers Association utilized its Fairtrade premium from the sale of Tate & Lyle® sugars to establish a waste management program. This initiative includes training sessions delivered directly to farmers, teaching them how to implement effective waste management practices at their own sites. This program not only improves business functions but also contributes to environmental sustainability.

[Learn more here](#)

ADVANCING LOCAL DECARBONIZATION EFFORTS

We are dedicated to becoming the most sustainable and ethical sugarcane company, striving to achieve net zero carbon emissions as swiftly as possible.

As part of these efforts, we facilitated an independent, third-party study funded by Fairtrade International. This study assessed the carbon footprint of our BSI Sugar Mill and the Fairtrade-certified smallholder cane farmers who supply it. The findings established a baseline, enabling us to identify opportunities to reduce carbon emissions effectively.

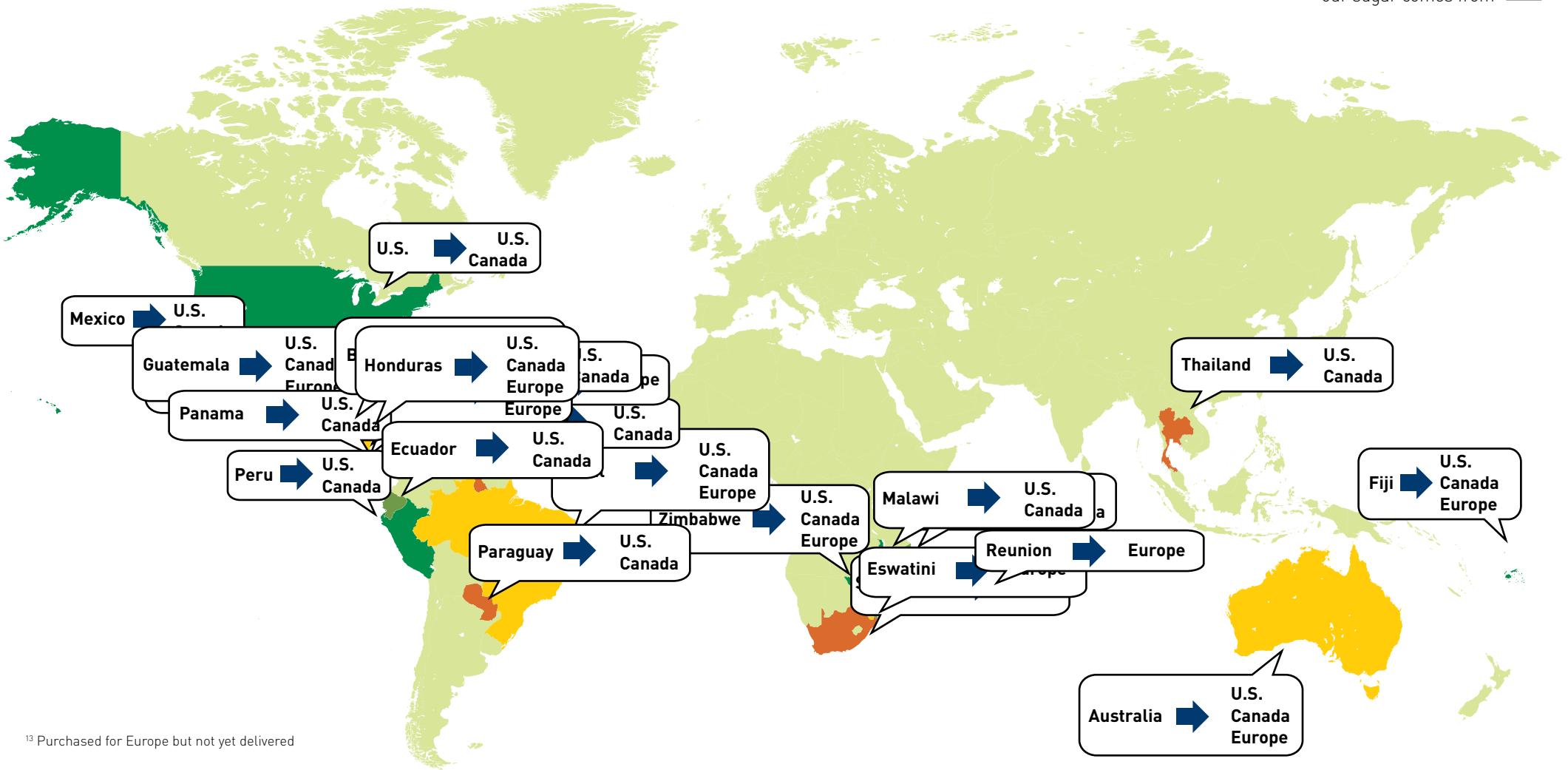
[Learn more here](#)



Transparency and Traceability

We source raw cane sugar from mills, mill groups, marketing boards, world markets, and trade houses. In FY24, our raw cane sugar came from 24 countries, produced by independent sugar mills or larger organizations that own sugar mills. The U.S. Department of Agriculture regulates the U.S. raw sugar supply under a tariff-rate quota system. The Common Agricultural Policy governs the European Union (EU) raw sugar supply, while the U.K. Government determines tariff rules in the U.K. These regulations dictate the countries from which we can source sugar and the permitted volumes. Click on each country on the map below to discover where our sugar is sourced from and its subsequent destinations.

click each country to learn where our sugar comes from 



¹³ Purchased for Europe but not yet delivered

Our Commitments and Progress

Since our last sustainability report, we made continuous strides in fulfilling the commitments we set in 2018.

click each FY 

FY18 Commitments	FY22-FY24 Progress		
100% of suppliers participate in Sedex	 FY22 FY23 FY24	82% ¹⁴ mill participation in Sedex.	
95% of our sugar will come from mills certified or verified to a recognized sustainability standard within a three-year period by end of FY35	 FY22 FY23 FY24	88% of the sugar arriving at our global refineries was assessed using our CSR verification tools, with 23 third-party full scope social audits (mills, estates, partly full scope social audits (mills, estates, and outgrowers) completed.	
30% of a preceding year's audited non-compliances in our supply chain resolved	 FY22 FY23 FY24	13% of non-compliances identified in our raw sugar supply chain assessments were fully resolved, and 31% were partially closed. ASR Group continued to work with our raw sugar suppliers, encouraging continuous improvement.	
Enhance source transparency; provide mill information for our supply chain by end FY25	 FY22 FY23 FY24	U.S. Operations achieved 86% source transparency to the mill level, while Canada, EU and U.K. Operations remained at 97%. Source transparency to the mill level, while Canada, EU and U.K. Operations reached 100%. U.S. Operations achieved 100% source transparency to the mill level, while Canada, EU and U.K. Operations reached 100%.	

To reach our targets, we will continue to:

- Emphasize the importance of Sedex participation with our suppliers.
 - Expand our third-party certification and verification audit program.
- Encourage suppliers to certify against credible sustainability standards.
 - Strengthen our audit follow-up measures to ensure non-conformities are rectified.
 - Explore enhancements to our supply chain's traceability.

¹⁴ In FY23, SEDEX underwent a process of updating the Self-Assessment Questionnaire (SAQ), and by the time the latter was finished, ASR's FY24 had already commenced.

Our Commitments and Progress



Human Rights

We support the United Nations' Guiding Principles on Business and Human Rights and recognize our responsibility to ensure human rights are respected throughout our supply chain.

This principle is reflected in legislation such as the U.K. Modern Slavery Act, the 1930 U.S. Tariff Act and the Canada Fighting Against Forced Labor and Child Labor in Supply Chains Act, which apply to different parts of our operations. You can find our U.K. business unit's annual Modern Slavery Act Transparency progress statement [here](#) and the Canada Fighting Against Forced Labor and Child Labor in Supply Chain Act [here](#).

Land Rights

We respect the land rights of all local and indigenous people and communities in the areas where we operate. We engage in the process of free, prior, and informed consent for any agricultural development on land legally possessed by such individuals or communities.

We advocate for resolving land rights disputes through a balanced and transparent process. We also ask our suppliers to adhere to the guidelines in our Supplier Code of Conduct and Grievance Mechanism – External Stakeholders policy document.

Advocacy

We advocate for sustainability by collaborating with various organizations, institutions, and projects in the cane sugar industry. We work with sugar trading houses to incorporate sustainability into their purchasing decisions and partner with international financial institutions, such as the Inter-American Development Bank.

We are also pursuing new partnerships related to renewable energy and climate-smart agriculture.

Our Commitments and Progress



Our Own Operations

ASR Group-owned production sites, including mills, refineries, and specific packaging and distribution centers, undergo annual Sedex Members Ethical Trade Audits (SMETA).

We use the SMETA audit process to assess our compliance with labor rights, health and safety, environment standards and business ethics. The results are shared with our customers.

They provide us with an Annual Report outlining compliance with Sedex standard and a Corrective Action Plan (CAP) Report detailing any necessary actions to address non-compliances.

SMETA is one of the most widely used social auditing protocols globally, based on the Ethical Trading Initiative’s principles.

An independent auditing firm conducts these audits to ensure objectivity and transparency.



EMPLOYEE & COMMUNITY ENGAGEMENT

We strive to be **the employer of choice, attracting and retaining top talent by fostering a supportive and innovative work environment.**

Caring for Our People



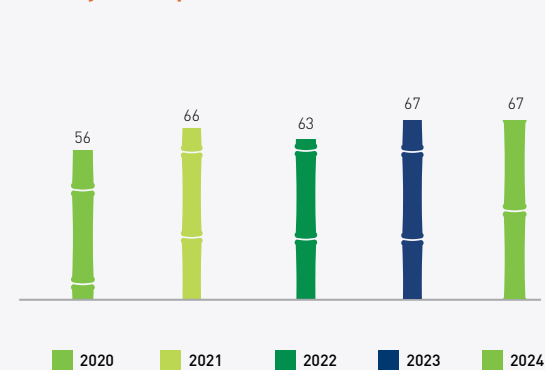
Our commitment to being an employer of choice is integral to our sustainability program. We aim to foster personal, professional, and economic growth alongside social responsibility and community involvement within our workforce.

Every year, we conduct an anonymous engagement survey to gather employee feedback. We measure engagement through five key metrics:

- Communication Effectiveness
- Confidence in the Future
- Discretionary Effort
- Immediate Supervisor / Manager
- Overall Job / Company Satisfaction

Survey results are shared with all functional areas. Teams review feedback and develop action plans to enhance engagement, which are reviewed quarterly by Leadership and Human Resources to ensure feedback is addressed.

Survey Participation (%)



Health and Wellness

Our employee health benefits vary by region, but our goal remains the same: to prioritize the wellbeing of our employees.

U.S. Employee Benefits

Our benefits programs reflect our commitment to the health and well-being of our workforce. By partnering with leading healthcare providers and offering a comprehensive range of services, we support our employees in every aspect of their lives. These enhancements contribute to a healthier, happier, and more productive work environment. Key benefits include:

- **Transcarent:** Offers no-cost orthopedic and surgery care through top-tier facilities and specialists. Includes a personal care coordinator and covers travel if needed.
- **Hinge Health:** Provides at-home physical therapy plans designed by physical therapists at no cost.
- **Health Advocate:** A free Health Advocacy and Employee Assistance Program (EAP) that helps with healthcare navigation, emotional concerns, work issues, substance abuse, marital and financial issues, stress, depression, anxiety and childcare / adoption assistance.
- **Health Fairs:** Conducted at no cost at each location, offering free health screenings for cholesterol, diabetes, and blood pressure with immediate results.
- **Save on SP:** A coupon program to help with the costs of prescribed specialty drugs.
- **Wellness Incentive Program:** Reduces employee contribution to medical premiums.

Additionally, we offering accident insurance, hospital indemnity, critical care insurance, legal assistance, and financial assistance through various vendors at nominal costs to ensure comprehensive coverage for all aspects of our employees' lives.



U.K. Wellbeing Initiatives

As part of our Employer of Choice Commitment, we focus on raising awareness of physical, mental, and financial wellbeing among colleagues through various engagement and communication events. Key initiatives include:

Regular Events:

- Time to Talk Day in February
- Miles for Minds Campaign: Encourages healthy competition among colleagues to walk, run or cycle as many miles as possible.
- World Mental Health Day in October.

Mental Health Awareness Week:

- Highlighted aspects of life impacting mental wellbeing, such as family relationships and financial health.
- Shared resources available through employee benefits to support mental health.
- Provided line manager training on supporting team members' wellbeing.
- Partnered with the European Women's Support Network to address stress and burnout, featuring a guest speaker.

Mental Health First Aid Programme:

- Surveyed first aiders to identify improvement opportunities.
- Developed a varied and visible calendar for 2025.
- Invested in training to expand the team of mental health first aiders.

Workplace Wellbeing & Safety Committee:

- Inaugural meeting held at the end of 2024.
- Led by a member of the European Leadership Team.
- Connects all business functions on safety and wellbeing topics.
- Ensures regular governance of safety performance and practices outside plant operations.

Health and Safety

We prioritize our employees’ safety and wellbeing as a core value at ASR Group. In FY24, our global recordable rate remained flat at 2.01, exceeding our goal of 1.5. We aim to achieve a global recordable rate of 1.33 by FY27.

Key Initiatives

- Injury Reduction:** Focus on reducing injuries through comprehensive onboarding training for all new employees, emphasizing safety from day one.
- Training Improvements:** Utilize our digital Learning Management System to track training data and reach a broader audience. Encourage safety discussions and peer-to-peer engagement through the safety contact process.
- Certification Goals:** Expand our management system approach and aim to certify sites in ISO 14001 and ISO 45001. Currently, our joint venture in Brindisi, Italy, and our Lisbon, Portugal sites are certified.
- Dust Hazard Assessments:** Conduct assessments at all locations to address dust hazards and track actions to closure.
- Safety Celebrations:** Host safety celebrations and family days at all locations to reinforce the importance of safety among employees and their families.



Our Employee Engagement Goals

We are committed to being active and visible champions of talent at all levels of the organization.

An engaged workforce is essential for a thriving business, and we aim to achieve this at ASR Group.

Our Global Engagement strategy guides our commitments, goals, and actions worldwide.

Engagement Goals



Ensure every employee feels valued, respected, and has a sense of belonging.



Foster a culture that actively seeks, engages with, and learns about the identities and experiences of colleagues.



Develop and execute a communications strategy for Employee Engagement.



Our Talent and Inclusiveness Goals

We are committed to attracting and retaining the best talent through unbiased methods and fair assessment by hiring managers. Our recruitment, talent management, compensation, and benefits processes support equality at all career levels. We also offer programs and policies to facilitate work-life balance and family focus.

U.S. Initiatives:

- Participation in voluntary affirmative action programs with annual goals for each location and employment category.
- Collection and filing of Equal Employment Opportunity data.

U.K. Initiatives:

- Annual reporting of the mean and median gender pay gap in our Gender Pay Gap Report.
- Our gender pay gap remains lower than the U.K. national average of around 7.5%.

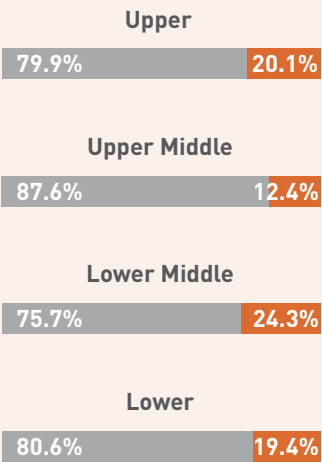


Our 2023¹⁵ U.K. gender pay gap statistics

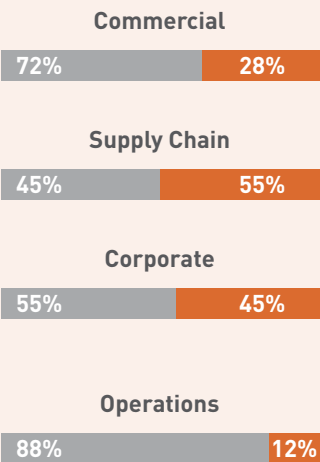
	Mean	Median
Gender pay gap	3.79%	4.46%
Bonus pay gap ¹⁶	23.57%	0.00%

MaleFemale

Male and female earnings by quartile



Gender split by function



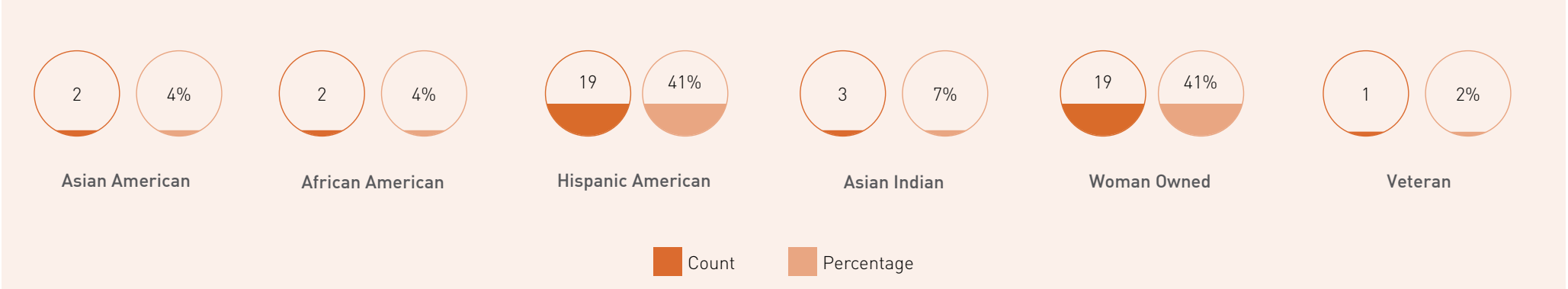
¹⁵ 2024 report will only be released in April 2025.
¹⁶ In ASR Group's FY23 Sustainability Report, the reported bonus pay gap figures (Mean of 1.74% and Median of -110.55%) excluded employees who did not receive a bonus. In contrast, the FY24 report figures include all employees.

OUR GOALS IN ACTION

Supporting Minority-Owned Businesses

To understand how we can better support underrepresented groups through our business practices, our U.S. team has been tracking our spending with minority-owned businesses since 2015. In 2024, we purchased from 46 certified minority-owned businesses.

Purchase Figures from Certified Minority-Owned Businesses 2024



Job Training Partnership Helped Grow our Diverse Buffalo Team

As the Buffalo Plant expanded, a new partnership with the nonprofit Beyond Western New York helped grow our diverse team. The organization offered a 12-week program for refugees interested in manufacturing careers. Participants improved their English, learned safety and practical skills, and practiced packaging at the nonprofit’s warehouse.

After training, participants joined our Buffalo Plant as temporary employees, working on packaging lines or as cleaners. Job coaches assisted with onboarding, and employees were paired with mentors of similar cultural backgrounds as they navigated their new workplace and learned their roles.

“Our partnership with Beyond Western New York is off to a successful start,” said Buffalo

Human Resources Manager Pachear Lor-Vue.

“The participants have shown exceptional work ethic and seem to enjoy the work environment,” she said.

After 60 days, temporary employees could be hired as permanent employees. Since beginning our partnership, we hired six employees through the program.

“This program strengthens our talent and culture and enhances our service excellence,” said Operations Manager Steven Park.



Buffalo Human Resources Manager Pachear Lor-Vue

OUR GOALS IN ACTION



Vice President
of Sustainability
Daryl Sabourin

Global Sustainability Leads Learn and Collaborate in Belize

The first annual ASR Group Global Sustainability Week took place in Belize, bringing together sustainability leads from around the globe at our BSI Mill in Orange Walk. The team engaged in various activities, including farm visits and personal development trainings such as “Understanding and Influencing Complex Systems.” This training focused on the “complex living system” of sugar production from farm to mill, emphasizing our place in the value chain and the importance of collaborative efforts.

“The biggest benefit was understanding and discussing the ‘complex living system,’” said Vice President of Sustainability Daryl Sabourin. “We often get caught up in our daily routines without realizing our role in the value chain and its connection to others. Expanding our

perspective was a key focus and extremely valuable.”

Participants also engaged in Belizean cultural events presented by the local BSI team, including a demonstration of the ancient Mayan game Pitz, local foods, and trips to historical sites.

“Everyone appreciated the local BSI team for providing such enriching and unique experiences,” said Daryl. “Many participants expressed interest in hosting the next Sustainability Week in their towns to share their culture, acknowledging that the bar has been set high.”

[Learn more here.](#)

Empowering Our People

We empower our people by creating growth and development opportunities.

Our focus is on helping our employees grow, develop skills, and build a motivated, winning team. We coordinate employee development across all functions and locations to ensure alignment with our corporate values.

Key Initiatives:

- **Learning Tools and Training:** Online and on-site learning tools, an apprenticeship program in the U.K., early career rotational programs, and tuition reimbursement programs.

- **Leadership Programs:** In FY24, 105 employees completed an in-person leadership program, and 896 participated in online managerial and leadership training.
- **Operations Training in North America:** Hands-on training labs focus on hand tool usage, safety protocols, and equipment operation. Additionally, there is an emphasis on Continuous Improvement through Lean Six Sigma Yellow Belt training.

This comprehensive approach ensures employees are proficient in their tasks and empowered to contribute to ongoing process improvements.



OUR GOALS IN ACTION

Apprenticeships Support Our Colleagues to Develop Skills for Life

This Apprenticeship Week, we celebrated the role of apprenticeships in helping our colleagues develop #skillsforlife for rewarding careers. One standout was Clara Aymerich, Research & Technology Operations Technical Manager, who earned her MBA with distinction through our Tate & Lyle Sugars Apprenticeship Program.

We utilized 88% of our UK Apprenticeship Levy to fund around 30 apprenticeships across various departments, including IT, engineering, supply chain, and HR. Most apprentices were current colleagues continuing their professional development while working.

Clara was recommended for the MBA program due to her strong technical background and leadership potential. The MBA helped Clara develop strategic thinking, decision-making, public speaking, and financial acumen for a senior leadership role.

Balancing work, study and personal life was Clara's biggest challenge. Support from her supervisor, apprenticeship coach, and team members was crucial. "My supervisor was involved from the beginning and always very encouraging," said Clara. "I was grateful for my team's flexibility and support."

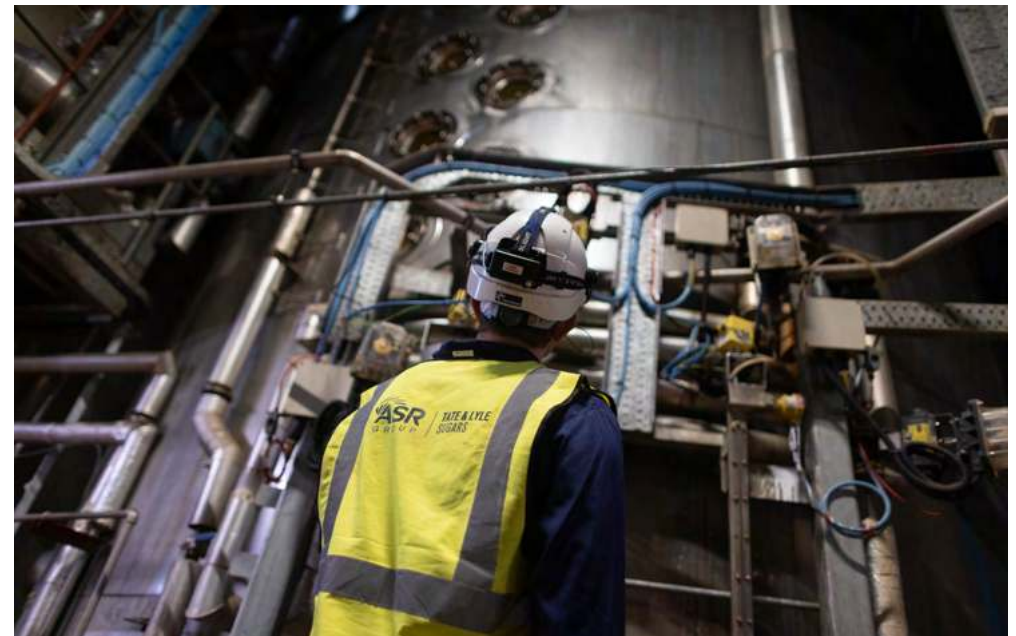
"The program provided a strong support structure, and it was encouraging to apply the knowledge I was gaining directly to my work," Clara added.

Now a manager, Clara has a better understanding of management styles and increased confidence in leadership. Completing the program also allowed her to explore new interests, such as organizational structures and knowledge sharing. "My biggest advice is to find your passion and share it with the Company so they can support you in achieving your goals," Clara said. "Don't give up, because there is always support available."



"The program provided a strong support structure, and it was encouraging to apply the knowledge I was gaining directly to my work."

— Clara Aymerich, Research & Technology Operations Technical Manager



Supporting Our Communities

Our success is intertwined with the success of local people, communities and businesses. Building a positive future together is a priority for us.

We proudly support numerous charitable and non-profit organizations, aligning with our four key priorities: environmental stewardship, hunger relief, STEM-based education, and civic and cultural programming. Each year, we extend our support to new partners. Our employees share our commitment to making a positive difference. On Earth Day, employees worldwide participate in community clean-up events and tree plantings. We also offer free e-waste recycling services to communities near our U.S. operations.

Environmental Stewardship

We are committed to environmental stewardship and support various organizations dedicated to this cause.

Key Partnerships

- **Blue Water Baltimore:** Restores Baltimore's waterways to foster a healthy environment, strong economy and thriving community.
- **Chesapeake Bay Foundation:** Advocates for healthy rivers, clean streams, and a saved Chesapeake Bay, largest estuary in the U.S.
- **Carquinez Regional Environmental Education Center:** Enhances, maintains, and restores wildlife habitats in the Carquinez Strait, California's most significant wildlife migratory corridor.
- **Center for the Urban River at Beczak (CURB):** Advances environmental knowledge and stewardship through K-12 education, research, and community activities in Yonkers, New York.
- **Groundwork Hudson Valley:** Creates sustainable environmental change in urban neighborhoods through community-based partnerships that promote equity, youth leadership and economic opportunity in Yonkers, New York.
- **Teaching Responsible Earth Education (T.R.E.E.):** Educate children and adults in New Orleans, Louisiana, about the life science processes, inspiring them to appreciate and protect the natural world.



Supporting Our Communities

Hunger Relief

Year after year, we help feed the hungry through financial and product donations to various organizations.

United States:

- Catholic Charities of Baltimore
- Second Harvest Food Bank in New Orleans
- Food Bank of Contra Costa & Solano in California
- Feeding Westchester and FeedMore WNY in New York State

Canadian Food Banks:

- MADA Community Centre
- Gravenhurst Against Poverty
- Nonnina's Table
- Manna Food Bank
- Scarborough Food Security Initiative

United Kingdom:

- Community Food Enterprise (CFE) in East London: For over 20 years, we have supported CFE, a social enterprise that alleviates food insecurity by distributing surplus food to frontline charities and community organizations. From their warehouse on our Thames Refinery site, CFE feeds around 10,000 people per month, delivering 5,000 kilos of food across East London.



STEM-Based Education

We actively promote STEM education in K-12 schools near our U.S. refineries. We support STEM programs at John Swett High School in California and Francis Scott Key Elementary Middle School in Baltimore. We also provide college scholarships in communities near our U.S. facilities and at various educational levels near our Belize and Mexico operations. In the UK, we hosted over 120 students from East London schools at our Thames Refinery to inspire them to study STEM subjects and consider careers in food manufacturing.

Supporting Our Communities



Civic and Cultural Programming

In East London, we partnered for over 13 years with the Newham All Star Sports Academy. This organization engages disadvantaged young people in basketball, providing a fun and safe environment. Sessions include mentoring talks on the dangers of knife crime and gang culture, as well as opportunities to gain qualifications in basketball coaching, officiating, and first aid.

We also support the cultural life of our communities by sponsoring neighborhood concert series, film festivals, and local museums, science centers, and cultural institutions. These include the Hudson River Museum in Yonkers, the Maryland Science Center, the Baltimore Museum of Industry, the Crockett Historical Society in California, and the Old Arabi Neighborhood Association in Louisiana. In FY24, we continued our sponsorship of the Redpath Waterfront Festival in Toronto and the Belleville, Ontario Waterfront & Multicultural Festival.



Volunteering

Our employees actively volunteer to support local causes and organizations.

Across the United States, they dedicate workday hours to maintaining gardens, rehabilitating recreation centers, preparing meals for those in need, and conducting community cleanups. Since FY19, dozens of employees at our Baltimore Refinery have participated in an oyster gardening program with the Chesapeake Bay Foundation to boost the population of these natural water filters. At our Chalmette Refinery in Louisiana,

employees volunteer annually at Magnolia Community Services in New Orleans, assisting adults with developmental disabilities.

In the U.K., we offer all staff three days of paid leave for volunteering and match them with opportunities in the community and with local charity partners. Our 'volunteer in the community' program provides employees with £250 per person for personal volunteering activities. Additionally, staff who fundraise for our charity partners can apply for 100% match funding up to £3,000, or 50% for any other charities that align with our community objectives.



GOVERNANCE, COMMUNICATION AND REPORTING

Our Senior Executive Team champions and leads **our mission to become the world's most sustainable sugar company.**

Corporate Governance

Vision & Strategy

We take ownership of our actions and are accountable for our decisions.

Our Chief Sustainability Officer (CSO), a corporate officer and member of the C-suite, is responsible for developing and executing our sustainability programs. The CSO reports directly to our President, who, along with the Board of Directors, approves and guides our strategy.

We adopt a science-based and transparent approach to sustainability, believing it is the most effective way to run our business sustainably. The CSO’s team focuses on CSR policy oversight and compliance, sustainability program management, data acquisition and reporting, and other sustainability projects. Additionally, our CSO and sustainability staff maintain dotted line relationships across multiple departments to ensure multidisciplinary collaboration.

Oversight

Our Board of Directors oversees and is responsible for sustainability-related risks and opportunities, including the organization’s material topics¹⁷. The Board members are:



Luis Fernandez
President & Chairman of the Board



Pepe Fanjul Jr.



Armando Tabernilla
Secretary



Alejandro Londoño

Our President assesses and manages the impact of climate change on the company, advised by an Executive Management Committee and reporting to the Board of Directors. This committee includes all key departmental and regional business leaders.

Throughout the year, our President receives specific updates on climate and other sustainability matters from our CSO. These updates are discussed at the quarterly Executive Management Committee meetings and with the Board of Directors.

¹⁷ See Materiality Assessment section.

Corporate Governance

Reporting

We regularly communicate our sustainability progress both internally and externally, as it is a priority for our governing entities.

Internal Reporting

Our CSO and staff conduct a quarterly sustainability steering committee meeting to update participants on key climate-related and other sustainability matters. Participants include departmental leadership, operational staff, site-level management, and sustainability leaders. This forum highlights market-driven activities, legislative developments, industry innovations, and project implementations, serving as a precursor to the quarterly executive board meeting.

We produce monthly and quarterly reports with KPI progress updates to inform our sustainability

team and senior leadership, including C-suite members, on achievements and setbacks.

External Reporting

We report our sustainability objectives, targets, and progress through various channels. We aim to release an annual sustainability report aligned with the Global Reporting Index (GRI) and the Task Force on Climate-Related Financial Disclosure (TCFD) frameworks. ASR Group discloses information via EcoVadis, THESIS, and CDP platforms.

In late 2023, ASR Group publicly committed to the Science Based Targets Initiative (SBTi) and submitted both interim and long-term decarbonization objectives for verification. These targets were validated in December 2024. Additionally, we implemented several third-party verification programs, SMETA 4-Pillar audits and the GreenCircle Certified Sustainability Facts label. We are also pursuing an external critical review of our product life cycle analysis (pLCA).



OUR GOALS IN ACTION



Director of Operational
Sustainability
Angelo Foti

GreenCircle Certification Underscores Our Commitment to Sustainability

We are proud to have achieved GreenCircle's Certified Sustainability Facts certification at our Toronto, Belleville, Thames, Plaistow, Lisbon and Yonkers sites. The certification validates our sustainability efforts, such as waste diversion from landfill, through a rigorous third-party review process. The certification process began in Canada with our Redpath sites and expanded to other locations. Earning the certification involved a nine-step evaluation, including site visits to verify our sustainability claims.

"Every aspect of our production was evaluated to ensure the highest

quality and best practices," said Angelo Foti, Director of Operational Sustainability. "The certification not only backs our claims but also provides key benefits."

The GreenCircle certification serves as a sales and marketing tool, inspiring consumer confidence. It also prepares us for future regulatory requirements by validating our sustainability performance.

"We are proud of everyone involved in this effort. Our teams' dedication to our sustainability goals sets us apart as industry leaders committed to a better future," said Angelo.



Business Ethics

We are committed to conducting business lawfully and ethically. Our Code of Ethics and Business Conduct, available on our [website](#), applies to all employees, officers, directors, contract personnel, agents, and suppliers. Each employee agrees to follow the Code and its principles in all business dealings, upholding our commitments to stakeholders, customers, suppliers, employees, neighbors, government agencies, lenders, and stockholders.

We maintain comprehensive policies and provide training on various topics, including:



Anti-corruption



Whistleblower programs



Anti-competitive behavior



Child and forced labor



Equal opportunity



Security practices



Non-discrimination



Environmental, Health and Safety awareness



All training is tracked via our computer-based learning management system. We aim for at least 90% completion of our Code of Ethics training each year. In 2024, we achieved an overall global completion score of 87%

Stakeholder Engagement

We engage with a diverse range of stakeholders, including employees, customers, NGOs, and local and international community groups. We define stakeholders as those who affect and / or are affected by our business operations. They hold us accountable, help us overcome barriers, identify opportunities for improvement, and share Corporate Social Responsibility (CSR) and sustainability best practices.

Our customers are among our most important stakeholders. Through regular meetings, we maintain transparency and communicate our activities to uphold our shared values.

Stakeholder Groups	ASR Group Engagement
Customers	Ongoing relationships, partnership projects, and other CSR-related activities
Social Certification Standard Organizations	Interaction and participation in regular meetings, providing feedback, and attending annual conferences
NGOs	Certification programs, partnership remediation programs, and consulting and training activities
International Financial Institutions	Partnerships in socio-economic development programs, including Climate Smart Agriculture
Communities	Annual activities such as: - School funding - Environmental projects - Food banks Remediation programs including: - Prevention/eradication of child/forced labor - Women empowerment - Alternative livelihoods to working in the sugarcane industry - Best agricultural management practices - Soil management - Pesticide handling - Cane variety programs

IT Security, Anti-Corruption and Grievance Programs

IT Security and Compliance Cyber Risk Assessment Program

We protect our data and our customers' data through processes and technologies designed to detect, prevent, and contain cyberattacks. Our Security Architecture team ensures all solutions comply with the company's security and governance requirements. They work closely with our Chief Information Security Officer to determine the IT security strategy, roll out of new security technologies, and conduct internal investigations.

In FY24, we did not experience any personal data incidents requiring reporting to global data protection authorities. There were no incidents that caused high risk or material harm.

Anti-Corruption Due Diligence Program

We review new and existing customers and vendors using the World Check One Database. This process checks for economic sanctions, AML, criminal activity, and other issues. Any exceptions are reviewed by our Legal and Risk Departments.

Ethics Hotline

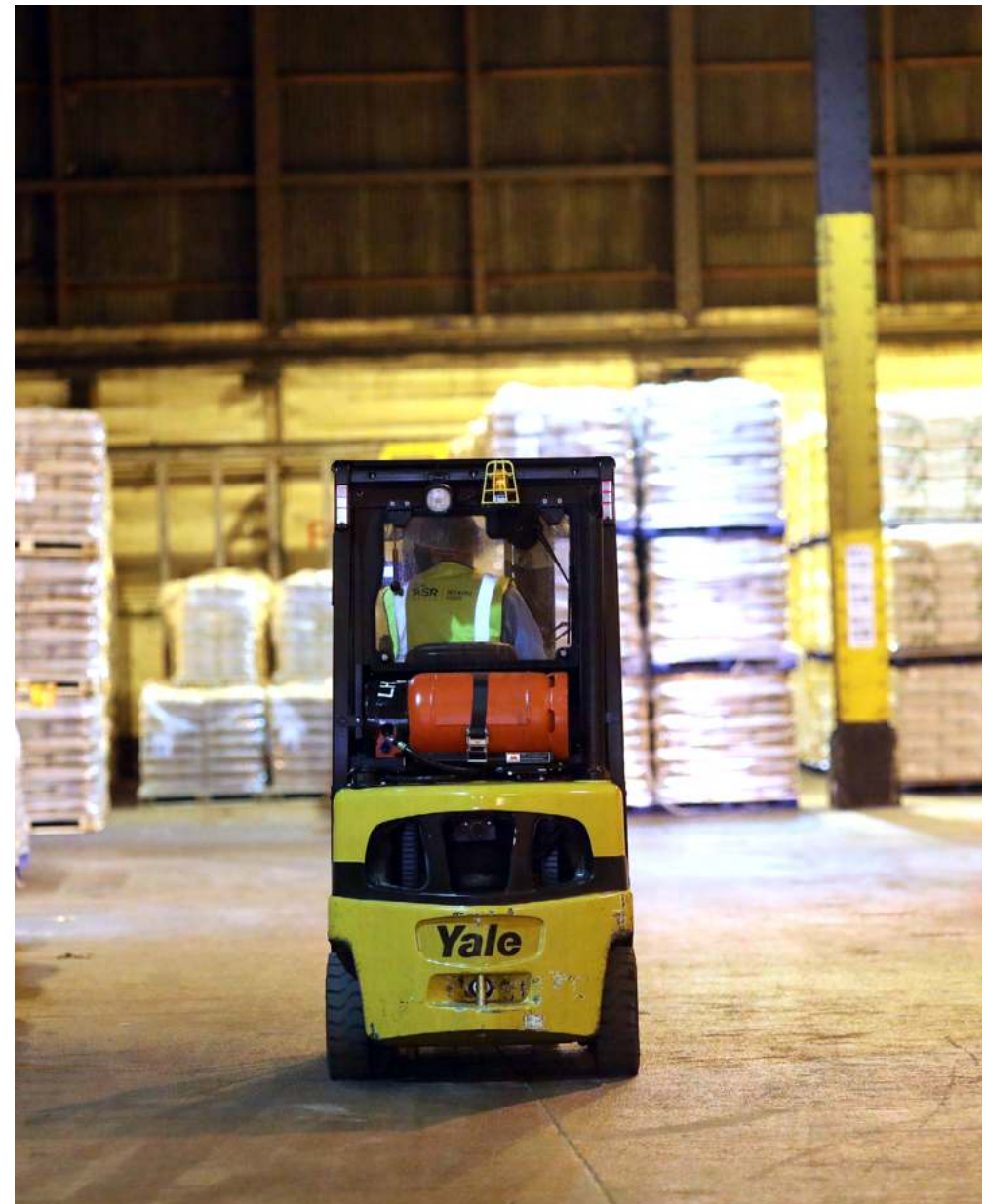
We engage a third party to anonymously receive information about alleged violations of our Code of Ethics and Business Conduct, protecting employees' identities as much as possible. Corporate Compliance ensures that 100% of hotline systems are available and provided in the primary local languages of the region, with annual testing for access and availability.

From FY15 to FY24, we received, investigated, and addressed 737 reports. In FY24 alone, 110 reports were submitted, investigated, and addressed. Substantiated classifications are based on investigations by ASR Group personnel, who assess the validity of claims and track conclusions for each case.

Grievance Mechanism

We offer a Grievance Mechanism for External Stakeholders to prevent, identify, and manage concerns throughout our value chain. Guided by Section 31 of the United Nations Guiding Principles on Business and Human Rights, we commit to working with relevant stakeholders to seek resolutions when concerns arise.

Stakeholders include customers, suppliers, contractors, subcontractors, and community members where we and our suppliers operate. Our Grievance Mechanism is managed by the Legal, Corporate Social Responsibility, Communications, Risk Management, and Corporate Affairs departments.





CLOSING

Thank you for your interest in our sustainability program.

Closing Thoughts

Thank you for your interest in our Sustainability Program. We are pleased to share our progress and hope you agree that our programs have matured since our last report. We advanced our objectives and adapted to new focus areas identified by our stakeholders. Many of these challenges are complex, and we seek to partner with like-minded companies to address them.

If you need additional information or have further questions, please contact our primary points of contact. We look forward to an open dialogue.

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APPENDIX

About this Report

This is our fifth sustainability report since FY18. We have not sought external assurance for the information presented. This report provides a concise overview of our strategic priorities for sustainability, initial commitments and goals, which we will continue to develop in future reports. We view this as an iterative process and will seek feedback from key stakeholders to improve our reporting and disclosures each year.

Scope and Time Horizon of this Report

This report details our efforts in corporate social responsibility and operational sustainability during FY24, covering October 2023 to September 2024. FY12 serves as our baseline year. Reporting is done under an equity control dynamic, impacting Brindisi’s reporting model as ASR Group holds a 50% stake in the facility in a joint venture.

Scope and Scale of Operations Included:

Sugar Refineries and Sugar Mills

- Baltimore, Maryland – USA
- Chalmette, Louisiana – USA
- Crockett, California – USA
- Yonkers, New York – USA
- Lisbon, Portugal – EU
- London, England – UK
- Toronto, Ontario – Canada
- Veracruz – Mexico
- Orange Walk – Belize
- Brindisi, Italy – EU

Non-Refinery Operations

- Buffalo, New York – USA
- Calumet, Illinois – USA
- Chicago, Illinois – USA
- Nashville, Tennessee – USA
- Cleveland, Ohio – USA
- Plaistow, England – UK
- Belleville, Ontario – Canada
- Fortín de las Flores, Veracruz – Mexico

Data from administrative offices in Florida, Veracruz, London, and Mexico City is limited and not included in this report. Water, energy, waste, and GHG emissions for these facilities are minimal. Fuel use and electricity purchases in agricultural operations in Belize and Mexico are included with the mill reports.

Forward-Looking Statements

This report contains forward-looking statements about our sustainability plans and expectations. These statements include our goals and commitments, as well as other future-oriented statements introduced with words like “expect,” “intend,” “anticipate,” “plan,” and similar phrases.

Actual results may differ materially due to various factors, including the need to develop new technology, the costs associated with developing and delivering that technology, acceptance and demand by distributors and farmers, competitive responses, intellectual property claims, challenges in attracting and retaining qualified employees, government regulation, and other factors. We disclaim any obligation to update these forward-looking statements.

Further Insights on Transitional and Physical Risks

Transitional Risk: Materiality Assessment Methodology

For our FY22 Double Materiality Assessment, we undertook the following steps:

- Identification and aggregation of potential issues or risk categories
- Evaluation of categories for potential business impact versus stakeholder interest on a 0-5 scale for each
- Prioritization of material risk categories based on the comparative analysis
- Analysis of the potential impact of the identified material issues
- Recognition of priority themes

We identified categories and the 0-5 risk matrices through:

- Internal and external interviews

- Peer and customer reporting and communication
- Comparative risk working group including a consultant, the Risk and Sustainability departments
- Consultant assistance to determine impact weights

The 0-5 scale reflects:

- Stakeholders' interest in these material issues
- The impact of these issues on ASR Group's business, considering both revenue and cost
- The magnitude of ASR Group's activities on these issues

Our Materiality Assessment scale is categorized as follows:

Stakeholder Interest			Business Impact	Magnitude of ASR Impact
0	None			
1	Limited	Issue rarely considered.	< \$500,000 USD	ASR Group's activities are not a primary driver of sustainability outcomes.
2	Minor	Issue considered but ASR Group's exposure to it not deemed considerate.	\$500,000 - \$999,000 USD	ASR Group's activities have a minor impact on sustainability outcomes. Severe impacts include minor injury or illness without lost time, short term impact on biodiversity or ecosystem services, or influence on rights or community prospects. Issues are felt locally and are not widespread.
3	Moderate	Issue of recent interest and has direct relevance to - but less explicit focus on - ASR Group.	\$1 million - \$5 million USD	ASR Group's activities have a moderate impact on sustainability outcomes. Severe impacts include reversible impact on biodiversity or ecosystem services, constraints to rights or community prospects. Issues are experienced locally.
4	Significant	Issue considered at an industry level with interest explicitly in ASR Group's approach and performance around the issue.	\$5 million - \$15 million USD	ASR Group's activities have a significant impact on sustainability outcomes. Severe impacts include major disability, long term impact on biodiversity or ecosystem services, or significant impacts on rights or community prospects. Issues are felt in key regions and may not extend across ASR Group's geographic operations and value chain.
5	Major	Issue identified as materially impacting ASR Group's current and future performance. Issue regularly raised in dialogues with ASR Group. Stakeholders identify this as a top priority; their decision-making relating to ASR Group is significantly influenced by their perception of this issue.	>\$15 million USD	ASR Group's activities have a major impact on sustainability outcomes. Severe impacts include loss of life, irreversible impact on biodiversity or ecosystem services, or life changing impacts on rights or community prospects. Issues are felt widely and may extend across ASR Group's geographic operations and value chain.

Physical Risk Methodology

Technology

- ClimateAi used its proprietary machine learning (ML) and artificial intelligence (AI) climate model to assess specific hazards impacting ASR Group’s facilities.
- Models were customized by location and combinations of variables and validated against public data and climate events from the past four decades.

Projecting Hazards

- **Chronic Hazards:** Assessed across Shared Socioeconomic Pathways (SSP) scenarios: Low (SSP 1-2.6), Middle (SSP 2-4.5), and High (SSP 5-8.5).
- **Acute Hazards:** Calculated using both Representative Concentration Pathways (RCP) and SSP scenarios, including hurricanes, river flooding, wildfires, water availability / scarcity. ClimateAi’s Coupled Model Intercomparison

Project Phase 6 (CMIP6) was used, with some variables from CMIP5 for acute hazards.

Assets

- **Owned Assets:** The probability of specific hazards impacting sites is averaged annually over a decade, compared globally, and referenced against a 2010 climatic baseline. A location’s aggregate hazard score reflects its average salient hazard score over a decade within a specific climate scenario.
- **Sugarcane Crop**
 - **Resiliency Assessment:** ClimateAi grouped approximately 280 mills in ASR Group’s sourcing network into 20 “climatic clusters.” Agronomists determined sugarcane-specific risks for each cluster, customized based on the crop’s phenological stages and regional harvesting periods. ASR Group experts validated the analysis, focusing on non-catastrophic weather changes to understand

long-term crop viability.

- **Risk Profiles:** Results were categorized based on overall risk profiles over the studied time periods.
 - » High-risk clusters: Significant negative impacts projected.
 - » Medium-risk clusters: Some negative impacts projected.
 - » Low-risk clusters: Some or significant positive impacts and minimal negative impacts projected.

Scores

- ClimateAi calculated relativistic risk scores by comparing the impact on owned assets versus climatically comparable sourcing groups within the company value chain (third-party mills).
- Comparisons were done within a given decade using global averages from the recent past (2010s) and forecast models for the future.

Carbon Methodology

Product Life Cycle

To actively reduce the carbon footprints of our finished goods, we first need to understand them. We achieve this by maintaining a product carbon footprint and conducting a life cycle assessment (pLCA) in accordance with the GHG Protocol's accounting and reporting standards. Through surveying, modeling, and data mining, we gained insights into our product's direct (Scope 1) emissions, as well as indirect (Scope 2 and 3) emissions. We continuously refine our analysis and use this information to focus our decarbonization efforts.

Product Life Cycle Data Reliability Heat Map

The Heat Map on the following page shows our current state of data acquisition on Scopes 1, 2, and 3 carbon emissions. Scope 1 & 2 data quality is strong, collected via monthly operational reports. Scope 3 data is modeled using purchasing data and spend-based analysis per the GHG protocol. Data uncertainty will decrease as suppliers provide validated emissions factors.

We will continue to improve upon our product's life cycle analysis as our own data and the GHG Protocol evolve. Our datasets are well established within our business units, and we have engaged with suppliers to gain further insight into the raw materials or finished goods we use. We filled gaps in user-specific emission factors with predictive models using the most accurate international databases or commonly accepted methodologies available.

Where possible, we are transitioning from secondary to primary data within our models. We will provide more information as policy and methodology develop. For example, we are moving from spend-based methods to databases that identify a material or product's embodied carbon. These numbers will eventually be replaced by supplier-reported embodied carbon, validated by a third-party critical review in accordance with ISO & GHG Protocol standards.

Value Chain Segment	Process	Scope	Refineries									Non-Refining Operations							Mexico/Belize			Corporate		
			TOR	YON	BAL	CHA	CRO	SID	THA	BRI	PLA	CHI	CLE	CAL	NAS	BUF	BEL	ISN	FOR	BSI	WPB	LON	MXC	
Land Use Change	Land Use	1 3																						
Farms	Cane Production	1 2 3																						
Mills	Transportation to Mills	1 3																						
	Milling Operations	1 2 3																						
Transport to Location	Raw Sugar	1 3																						
	Ingredients	3																						
	Chemicals	3																						
	Maintenance Materials	3																						
	Packaging	3																						
	Capital Goods	3																						
	"Well to Tank" Fuel Influence	3																						
Materials Production & Use	Raw Sugar	3																						
	Ingredients	3																						
	Chemicals	3																						
	Maintenance Materials	3																						
	Packaging	3																						
Refineries & Mills	Energy Production & Use	1 2																						
	Water Usage	1 3																						
	Waste Treatment	1 3																						
	Self-generated Solid Waste	3																						
	Refrigerants	1 3																						
	Transportation to Warehouse	1 3																						
	3rd Party Warehousing	3																						
	Transportation to Consumer	1 3																						
	Packaging End of Life	3																						
NROs/Goods Out Supply Chain	Transportation to NROs/Co-Packers	1 3																						
	Production at NROs/Co-Packers	1 2 3																						
	Transportation to Warehouses	1 3																						
	3rd Party Warehousing	3																						
	Transportation to Customer	1 3																						
Other	Business Travel	3																						
	Employee Commute	3																						
	Office Electricity Consumption	2																						
	Office Consumables Consumption	3																						

Currently tracked or modeled

Not currently tracked

Not applicable

Categories

Scope 3 Categories Not Currently Perceived as Applicable

Upstream Leased Assets	None identified at this time.
Processing of Sold Products	Processing of sold raw sugar, molasses, or finished goods in secondary product systems by customers is determined as not applicable.
Use of Sold Products	Considered biogenic in nature, as the consumption of simple sugars yields energy in organisms with byproducts of CO ₂ and water. The CO ₂ fraction is a biogenic emission and thus out of scope.
Downstream Leased Assets	Downstream leased third-party co-packing facilities for operational allocations are still being determined; none identified at this time.
Franchises	Private ownership; none identified at this time.
Investments	None identified at this time.

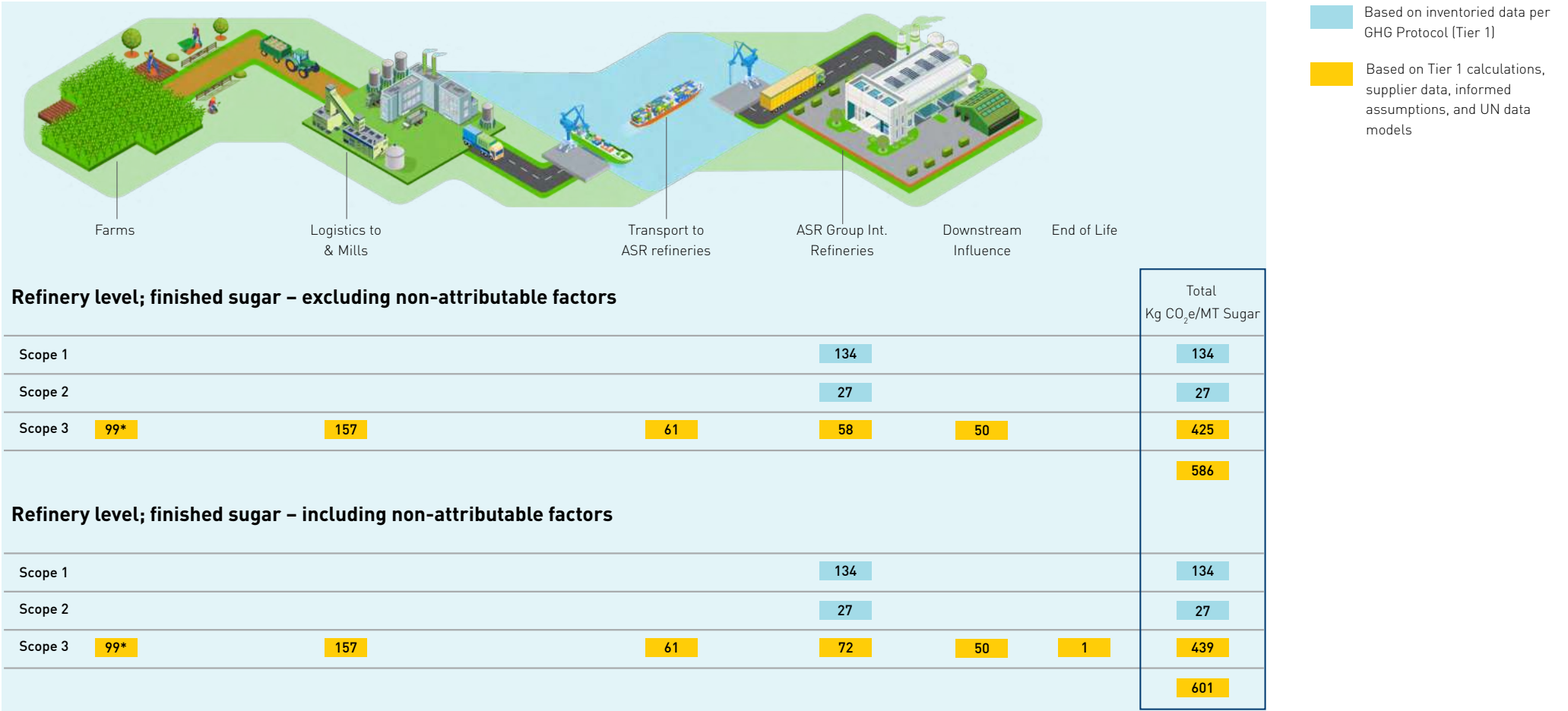
Scope 3 Categories Considered Non-Attributable

Purchase Goods and Services (Maintenance Materials)
Upstream Transportation and Distribution (Maintenance Materials & Capital Goods)
Capital Goods
Business Travel
Employee Commuting
Upstream Leased Assets
Processing of Sold Products
Use of Sold Products
End of Life Treatment of Sold Products
Downstream Leased Assets
Franchises
Investments

Value Chain Product Life Cycle Analysis (pLCA)

The natural system of sugarcane farming offers opportunities for “removals” as defined by the IPCC and SBTi. Regenerative practices can lead to carbon sequestration, capturing and storing carbon in the soil, thus reducing the overall carbon footprint. Additionally, biogenic emissions and bioenergy, though not directly influencing climate change, are tracked and reported separately. These CO₂ emissions are reabsorbed by natural processes and are not persistent in the environment. For example, most emissions from using bagasse (the fiber leftover after cane milling) as a biofuel do not count in the product footprint, as the plant reabsorbs the CO₂ through photosynthesis. However, N₂O and CH₄ emissions from bagasse combustion do count towards the product footprint. We track these emissions, presenting an opportunity for another “sink” if captured and sequestered via innovative technologies.

Farm to Refinery Gate pLCA for ASR Group FY24



“Farm”* emissions (i.e. 99 kg/MT) breakdown according to the SBTi FLAG Standard:

- 21.9% - 22.1% of CO₂e kg per MT of product attributable to Land Use Change
- 77.1% - 77.9% of CO₂e kg per MT of product attributable to Land Management

Removals: Not yet permitted in accounting. We are working on validating claims and quantifying measures for each practice or activity we seek to employ.

Raw Sugar Sourcing

Farm to Third-Party Mills

To ensure conformance with the GHG Protocol, we adjusted our Farm and Mill pLCA influence calculations. This adjustment allows for harmonized data control as we collaborate with our supply chain partners and ensures that a third party can validate our models and assumptions via Critical Review in accordance with ISO 14040, ISO 14044, and ISO 14067.

Our models report a “Forest, Land, and Agriculture (FLAG)” separation, in accordance with SBTi FLAG Annex tools.

To understand farm influences, we assessed United Nations Food and Agriculture Organization (UN FAO) datasets ([FAOSTAT](#)), focusing on sugarcane-specific points such as fertilizer and nutrient inputs, yield, and crop residue management. We used this data to model Land Use Change influences and compared these to relevant scientific journal entries and the Bonsucro ClimateCane tracker. Our research identified that the influence of cultivation practices, such as tilling, is neutralized when farming sugarcane due to its permanence and crop residue management. Therefore, we did not integrate tilling emissions into the model, nor did we account for carbon “removals”. We will focus on this area as we acquire more primary data through mill and farm engagements and collaboration.

To determine farm-to-mill logistics influence, we assessed estimated delivery distances between farm boundaries and mills, coupled with weight and standard mode of travel, while factoring in our understanding of sucrose yield per metric ton of fresh cane. To determine mill emissions factors, we calculated an average from our owned mills’ data and publicly reported emissions from other mills’ sustainability reports. These two value chain components – “farm-to-mill logistics” and “mills” – are currently determined through secondary data analysis. However, as supply chain reporting improves and certification bodies begin to produce and share “big data” sources, we will refine these points with primary data.

It is important to note that sugarcane is a “C4 - permanent crop,” meaning it generally is not disturbed for periods longer than five years. When applying sustainable agriculture and climate change mitigation practices, these “grasslands” can be cultivated for more than 10 years before yields dip and replanting becomes necessary. These positive attributes, coupled with potential “GHG removal” practices – such as biochar application, green cultivation, nutrient management programming, crop rotations, cover cropping, biomass utilization, and agroforestry – offer communities opportunities to increase their resilience in the face of climate change adaption requirements. ASR Group will publish more information on these actions as we develop our Sustainable Agriculture program.

Other Purchased Goods and Contracted Services

Materials Purchasing

A key component of measuring our Scope 3 carbon emissions is understanding the impacts of the various purchased goods and contracted services we use, beyond sugar. Throughout FY24, we refined our model in accordance with the GHG protocol, updating the influences of our purchased materials and capital goods. We applied a spend-based methodology using the U.S. Environmentally Extended Input-Output (US EEIO)¹⁸ dataset to analyze our purchasing data and inventories.

In the coming years, we will enhance these models by engaging with our suppliers, assessing their decarbonization efforts, and seeking validated primary emissions factors for more accurate business influences. Based on our suppliers' progress in their sustainability journeys, we will establish purchasing guidance for our buyers, prioritizing those aligned with our vision and values.

We are currently evaluating potential survey partners, to facilitate collaboration with our suppliers and reduce the number of individual surveys they need to complete. Our goal is to minimize survey fatigue and keep resources focused on action rather than reporting, through a harmonized disclosure approach.

Production Gate to Consumer

We modeled the embodied carbon footprint from distributing our finished goods to customers and the post-consumer end-of-life impacts of our packaging disposal.

In line with our material procurement efforts, we are refining these models by engaging with service providers to assess their decarbonization efforts and seeking validated primary emissions factors for more accurate representations. These analyses will help us establish contract award guidance that prioritizes providers committed to sustainable development, aligned with our vision and values.



¹⁸ US EEIO is a combined economic-environmental model that uses input-output and satellite tables to assess the impacts of various sectors and activities.

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All ASR Group	111
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Latin and Central American Operations	120
North American Operations	125

» The most recent 2023 data can be found in our [2023 Sustainability Report](#).



FY24 GHG Emissions ASR Group

(MT CO₂e)

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Collective CDP Filing - All Products	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
Scope 1	572,545	547,212	19,902	5,431
Scope 2	121,763	114,294	2,688	4,773
Location Based	144,291	136,822	2,688	4,781
Market Based	121,217	114,290	2,688	4,239
Scope 3	2,027,494	1,768,416	109,049	264,962
Purchase goods and services	1,348,319	1,156,389	69,309	237,554
Sugar Supply	1,074,495	1,015,170	59,326	114,934
Forest, Land, & Agriculture Fractions	430,210	370,884	59,326	18,106
Land Management	299,931	252,584	47,347	14,490
Land Use Change	130,279	118,300	11,978	3,616
Removals	0	0	0	0
Raw Material Procurement (Ingredients)	220,390	101,134	6,480	112,776
Raw Material Procurement (Packaging)	33,615	24,406	347	8,862
Raw Material Procurement (Maintenance Materials)	19,818	15,680	3,157	982
Capital goods	23,672	21,248	1,172	1,251
Fuel-and-energy-related activities (not included in scope 1 or 2)	107,731	104,242	1,319	2,170
Upstream transportation and distribution	300,330	267,390	22,059	10,881
Sugar Supply	279,584	249,775	21,211	8,598
Raw Material Procurement (Ingredients)	7,482	6,357	26	1,099
Raw Material Procurement (Packaging)	2,169	1,589	21	559
Raw Material Procurement (Maintenance Materials)	2,775	2,263	358	154
Capital Goods	8,320	7,406	442	472
Waste generated in operations	24,820	21,110	3,271	439
Business travel	1,752	1,241	329	182
Employee commute	10,628	7,935	1,452	1,241
Downstream transportation and distribution	205,201	184,369	9,934	10,920
End of life treatment of sold products	5,040	4,492	203	345
Scope 1 Biogenic - Out of Scope (OoS)	413,611	9,996	403,615	0
Scope 3 - OoS Biogenic Emissions/ Bioenergy (extrapolation)	3,128,235	3,128,235	0	0

*Scope 3 Bio OoS - 3rd Party Mill biofuel use/ "green" CO₂ emissions fraction; extrapolated based on sugar purchases and ASR Primary data understanding. (Reported at refinery only to avoid double count at NROs as a "pass-through." May be allocated later.)

FY24 GHG Emissions Intensity ASR Group

(Kg CO₂e / Kg Product)

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Finished Goods, Sugar - Without Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes		0.578	0.509	1.123
Scope 1		0.134	0.083	0.023
Scope 2		0.027	0.011	0.018
Location Based		0.033	0.011	0.020
Market Based		0.027	0.011	0.018
Scope 3		0.416	0.416	1.094
Scope 1 Biogenic - Out of Scope (OoS)		0.002	1.766	0.000
Scope 3 - OoS Biogenic Emissions		0.762	0.000	0.000
% FLAG - Land Management (In scope Only)		10.7%	37.0%	5.4%
% FLAG - Land Use Change (In scope Only)		5.0%	6.6%	1.3%
% FLAG - Removals (In scope Only)		NR	NR	NR

Finished Goods, Sugar - With Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes		0.592	0.535	1.154
Scope 1		0.134	0.083	0.023
Scope 2		0.027	0.011	0.018
Location Based		0.033	0.011	0.020
Market Based		0.027	0.011	0.018
Scope 3		0.431	0.442	1.113
Scope 1 Biogenic - Out of Scope (OoS)		0.002	1.766	0.000
Scope 3 - OoS Biogenic Emissions		0.762	0.000	0.000
% FLAG - Land Management (In scope Only)		10.4%	35.2%	5.3%
% FLAG - Land Use Change (In scope Only)		4.8%	6.3%	1.3%
% FLAG - Removals (In scope Only)		NR	NR	NR

FY24 GHG Emissions Intensity ASR Group

(Kg CO₂e / Kg Product)

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Raw Sugar - Without Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes			0.358	
Scope 1			0.055	
Scope 2			0.008	
Location Based			0.008	
Market Based			0.008	
Scope 3			0.295	
Scope 1 Biogenic - Out of Scope (OoS)			1.857	
Scope 3 - OoS Biogenic Emissions			0.00	
% FLAG - Land Management (In scope Only)			41.6%	
% FLAG - Land Use Change (In scope Only)			19.8%	
% FLAG - Removals (In scope Only)			NR	

Raw Sugar - With Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes			0.386	
Scope 1			0.055	
Scope 2			0.008	
Location Based			0.008	
Market Based			0.008	
Scope 3			0.323	
Scope 1 Biogenic - Out of Scope (OoS)			1.857	
Scope 3 - OoS Biogenic Emissions			0.00	
% FLAG - Land Management (In scope Only)			38.5%	
% FLAG - Land Use Change (In scope Only)			18.3%	
% FLAG - Removals (In scope Only)			NR	

FY24 GHG Emissions Intensity ASR Group

(Kg CO₂e / Kg Product)

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Molasses - Without Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes		0.585	0.478	
Scope 1		0.116	0.074	
Scope 2		0.050	0.010	
Location Based		0.059	0.010	
Market Based		0.050	0.010	
Scope 3		0.420	0.394	
Scope 1 Biogenic - Out of Scope (OoS)		0.002	1.793	
Scope 3 - OoS Biogenic Emissions		0.783	0.00	
% FLAG - Land Management (In scope Only)		10.3%	37.0%	
% FLAG - Land Use Change (In scope Only)		6.2%	9.4%	
% FLAG - Removals (In scope Only)		NR	NR	

Molasses - With Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes		0.598	0.506	
Scope 1		0.116	0.074	
Scope 2		0.050	0.010	
Location Based		0.059	0.010	
Market Based		0.050	0.010	
Scope 3		0.433	0.422	
Scope 1 Biogenic - Out of Scope (OoS)		0.069	1.793	
Scope 3 - OoS Biogenic Emissions		0.783	0.000	
% FLAG - Land Management (In scope Only)		10.1%	34.9%	
% FLAG - Land Use Change (In scope Only)		6.1%	8.8%	
% FLAG - Removals (In scope Only)		NR	NR	

FY24 GHG Emissions European Operations

(MT CO₂e)

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Collective CDP Filing - All Products	European Region	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaistow
Scope 1	130,162	128,793	1,369	95,194	31,593	2,006	1,369
Scope 2	2,625	2,083	542	0	2,079	3	542
Location Based	4,784	4,238	542	2,159	2,079	3	542
Market Based	2,079	2,079	0	0	2,079	0	0
Scope 3	376,472	369,870	19,995	242,884	91,246	35,740	19,995
Purchase goods and services	240,745	236,124	18,013	151,083	60,224	24,818	18,013
Sugar Supply	204,279	204,279	13,393	129,967	53,930	20,382	13,393
Forest, Land, & Agriculture Fractions	76,593	76,593	1,798	46,970	20,265	9,358	1,798
Land Management	53,321	53,321	1,250	33,723	15,655	3,943	1,250
Land Use Change	23,272	23,272	548	13,247	4,610	5,415	548
Removals	0	0	0	0	0	0	0
Raw Material Procurement (Ingredients)	27,867	24,141	3,726	16,228	4,305	3,608	3,726
Raw Material Procurement (Packaging)	4,931	4,154	777	2,218	1,439	497	777
Raw Material Procurement (Maintenance Materials)	3,668	3,550	118	2,669	550	330	118
Capital goods	2,015	1,873	142	1,361	321	191	142
Fuel-and-energy-related activities (not included in Scope 1 or 2)	16,638	16,413	225	15,830	276	307	225
Upstream transportation and distribution	76,195	75,793	402	49,219	19,952	6,622	402
Sugar Supply	72,429	72,405	24	46,743	19,318	6,343	24
Raw Material Procurement (Ingredients)	2,206	1,956	250	1,495	348	112	250
Raw Material Procurement (Packaging)	297	241	56	123	83	35	56
Raw Material Procurement (Maintenance Materials)	504	485	19	344	81	59	19
Capital Goods	760	706	54	513	121	72	54
Waste generated in operations	343	318	25	147	52	119	25
Business travel	404	367	37	221	96	51	37
Employee commute	1,827	1,668	159	955	466	247	159
Downstream transportation and distribution	37,582	36,610	972	23,613	9,675	3,323	972
End of life treatment of sold products	723	704	19	455	185	64	19
Scope 1 Biogenic - Out of Scope (OoS)	9,996	9,996	0	0	0	9,996	0
Scope 3 - OoS Biogenic Emissions/ Bioenergy (extrapolation)	629,485	629,485	0	400,493	166,185	62,806	0

*Scope 3 Bio OoS - 3rd Party Mill biofuel use/ "green" CO₂ emissions fraction; extrapolated based on sugar purchases and ASR Primary data understanding. (Reported at refinery only to avoid double count at NROs as a "pass-through." May be allocated later.)

FY24 GHG Emissions Intensity European Operations

(Kg CO₂e / Kg Product)

Go to GHG
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Finished Goods, Sugar - Without Non-Attributable Processes	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaistow
All Scopes	0.563	0.979	0.642	0.582	0.506	0.979
Scope 1	0.148	0.064	0.184	0.149	0.028	0.064
Scope 2	0.002	0.000	0.000	0.010	0.000	0.000
Location Based	0.005	0.026	0.004	0.010	0.000	0.026
Market Based	0.002	0.000	0.000	0.010	0.000	0.000
Scope 3	0.413	0.915	0.458	0.423	0.479	0.915
Scope 1 Biogenic - Out of Scope (OoS)	0.011	0.000	0.000	0.000	0.138	0.000
Scope 3 - OoS Biogenic Emissions	0.721	0.000	0.775	0.786	0.866	0.000
% FLAG - Land Management (In scope Only)	10.6%	6.0%	10.2%	12.7%	10.7%	6.0%
% FLAG - Land Use Change (In scope Only)	4.6%	2.6%	4.0%	3.7%	14.7%	2.6%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR	NR

Finished Goods, Sugar - With Non-Attributable Processes	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaistow
All Scopes	0.574	1.005	0.655	0.591	0.520	1.005
Scope 1	0.148	0.064	0.184	0.149	0.028	0.064
Scope 2	0.002	0.000	0.000	0.010	0.000	0.000
Location Based	0.005	0.026	0.004	0.010	0.000	0.026
Market Based	0.002	0.000	0.000	0.010	0.000	0.000
Scope 3	0.424	0.941	0.471	0.432	0.493	0.941
Scope 1 Biogenic - Out of Scope (OoS)	0.011	0.000	0.000	0.000	0.140	0.000
Scope 3 - OoS Biogenic Emissions	0.721	0.000	0.775	0.786	0.866	0.000
% FLAG - Land Management (In scope Only)	10.6%	5.8%	10.0%	12.5%	10.4%	5.8%
% FLAG - Land Use Change (In scope Only)	4.6%	2.6%	3.9%	3.7%	14.3%	2.6%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR	NR

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Molasses - Without Non-Attributable Processes	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaislow
All Scopes	0.566		0.642	0.582	0.506	
Scope 1	0.148		0.184	0.149	0.028	
Scope 2	0.004		0.000	0.010	0.000	
Location Based	0.006		0.004	0.010	0.000	
Market Based	0.004		0.000	0.010	0.000	
Scope 3	0.415		0.458	0.423	0.479	
Scope 1 Biogenic - Out of Scope (OoS)	0.010		0.000	0.000	0.138	
Scope 3 - OoS Biogenic Emissions	0.731		0.775	0.786	0.866	
% FLAG - Land Management (In scope Only)	10.9%		10.2%	12.7%	10.7%	
% FLAG - Land Use Change (In scope Only)	4.5%		4.0%	3.7%	14.7%	
% FLAG - Removals (In scope Only)	NR		NR	NR	NR	

Molasses - With Non-Attributable Processes	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaislow
All Scopes	0.576		0.655	0.591	0.520	
Scope 1	0.148		0.184	0.149	0.028	
Scope 2	0.004		0.000	0.010	0.000	
Location Based	0.006		0.004	0.010	0.000	
Market Based	0.004		0.000	0.010	0.000	
Scope 3	0.425		0.471	0.432	0.493	
Scope 1 Biogenic - Out of Scope (OoS)	0.069		0.000	0.000	0.138	
Scope 3 - OoS Biogenic Emissions	0.731		0.775	0.786	0.866	
% FLAG - Land Management (In scope Only)	10.9%		10.0%	12.5%	10.4%	
% FLAG - Land Use Change (In scope Only)	4.5%		3.9%	3.7%	14.3%	
% FLAG - Removals (In scope Only)	NR		NR	NR	NR	

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Collective CDP Filing - All Products	LATAM / Central America	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
Scope 1	19,902	19,902	0	7,923	11,979	0
Scope 2	2,916	2,688	228	1,221	1,467	228
Location Based	2,442	2,333	109	1,221	1,467	228
Market Based	2,442	2,333	109	1,221	1,467	228
Scope 3	110,248	109,049	4,642	51,004	58,046	4,642
Purchase goods and services	69,929	69,309	4,062	34,573	34,737	4,062
Sugar Supply	59,326	59,326	3,443	31,908	27,417	3,443
Forest, Land, & Agriculture Fractions	59,326	59,326	1,584	31,908	27,417	1,584
Land Management	47,347	47,347	1,495	21,613	25,734	1,495
Land Use Change	11,978	11,978	89	10,296	1,683	89
Removals	0	0	0	0	0	0
Raw Material Procurement (Ingredients)	6,651	6,480	171	466	6,015	171
Raw Material Procurement (Packaging)	777	347	430	166	180	430
Raw Material Procurement (Maintenance Materials)	3,175	3,157	18	2,032	1,124	18
Capital goods	1,222	1,172	50	852	321	50
Fuel-and-energy-related activities (not included in Scope 1 or 2)	1,388	1,319	69	782	537	69
Upstream transportation and distribution	22,155	22,059	95	7,829	14,230	95
Sugar Supply	21,230	21,211	19	7,262	13,949	19
Raw Material Procurement (Ingredients)	56	26	30	17	10	30
Raw Material Procurement (Packaging)	46	21	25	9	12	25
Raw Material Procurement (Maintenance Materials)	361	358	3	220	138	3
Capital Goods	461	442	19	321	121	19
Waste generated in operations	3,273	3,271	2	2,000	1,271	2
Business travel	338	329	9	99	230	9
Employee commute	1,484	1,452	32	581	871	32
Downstream transportation and distribution	10,246	9,934	312	4,217	5,717	312
End of life treatment of sold products	214	203	10	71	132	10
Scope 1 Biogenic - Out of Scope (OoS)	403,615	403,615	0	192,958	210,657	0
Scope 3 - OoS Biogenic Emissions/ Bioenergy (extrapolation)	0	0	0	0	0	0

*Scope 3 Bio OoS - 3rd Party Mill biofuel use/ "green" CO₂ emissions fraction; extrapolated based on sugar purchases and ASR Primary data understanding. (Reported at refinery only to avoid double count at NROs as a "pass-through." May be allocated later.)

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Finished Goods, Sugar - Without Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.509	0.694	0.403	0.566	0.694
Scope 1	0.083	0.000	0.055	0.098	0.000
Scope 2	0.011	0.034	0.008	0.012	0.034
Location Based	0.011	0.034	0.008	0.012	0.034
Market Based	0.011	0.034	0.008	0.012	0.034
Scope 3	0.416	0.660	0.340	0.457	0.660
Scope 1 Biogenic - Out of Scope (OoS)	1.766	0.000	1.530	1.720	0.000
Scope 3 - OoS Biogenic Emissions	0.000	0.000	0.000	0.000	0.000
% FLAG - Land Management (In scope Only)	37.0%	31.6%	36.9%	37.1%	31.6%
% FLAG - Land Use Change (In scope Only)	6.6%	1.9%	17.6%	2.4%	1.9%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR

Finished Goods, Sugar - With Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.535	0.715	0.432	0.590	0.715
Scope 1	0.083	0.000	0.055	0.098	0.000
Scope 2	0.011	0.034	0.008	0.012	0.034
Location Based	0.011	0.034	0.008	0.012	0.034
Market Based	0.011	0.034	0.008	0.012	0.034
Scope 3	0.442	0.681	0.369	0.481	0.681
Scope 1 Biogenic - Out of Scope (OoS)	1.766	0.000	1.857	1.718	0.000
Scope 3 - OoS Biogenic Emissions	0.000	0.000	0.000	0.000	0.000
% FLAG - Land Management (In scope Only)	35.2%	30.7%	34.4%	35.6%	30.7%
% FLAG - Land Use Change (In scope Only)	6.3%	1.8%	16.4%	2.3%	1.8%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR

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Raw Sugar - Without Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.358		0.358		
Scope 1	0.055		0.055		
Scope 2	0.008		0.008		
Location Based	0.008		0.008		
Market Based	0.008		0.008		
Scope 3	0.295		0.295		
Scope 1 Biogenic - Out of Scope (OoS)	1.857		1.857		
Scope 3 - OoS Biogenic Emissions	0.00		0.00		
% FLAG - Land Management (In scope Only)	41.6%		41.6%		
% FLAG - Land Use Change (In scope Only)	19.8%		19.8%		
% FLAG - Removals (In scope Only)	NR		NR		

Raw Sugar - With Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.386		0.386		
Scope 1	0.055		0.055		
Scope 2	0.008		0.008		
Location Based	0.080		0.080		
Market Based	0.080		0.080		
Scope 3	0.323		0.323		
Scope 1 Biogenic - Out of Scope (OoS)	1.857		1.857		
Scope 3 - OoS Biogenic Emissions	0.00		0.00		
% FLAG - Land Management (In scope Only)	38.5%		38.5%		
% FLAG - Land Use Change (In scope Only)	18.3%		18.3%		
% FLAG - Removals (In scope Only)	NR		NR		

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Molasses - Without Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.478		0.403	0.566	
Scope 1	0.074		0.055	0.098	
Scope 2	0.010		0.008	0.012	
Location Based	0.010		0.008	0.012	
Market Based	0.010		0.008	0.012	
Scope 3	0.394		0.340	0.457	
Scope 1 Biogenic - Out of Scope (OoS)	1.793		1.857	1.718	
Scope 3 - OoS Biogenic Emissions	0.00		0.00	0.00	
% FLAG - Land Management (In scope Only)	37.0%		36.9%	37.1%	
% FLAG - Land Use Change (In scope Only)	9.4%		17.6%	2.4%	
% FLAG - Removals (In scope Only)	NR		NR	NR	

Molasses - With Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.506		0.435	0.590	
Scope 1	0.074		0.055	0.098	
Scope 2	0.010		0.008	0.012	
Location Based	0.010		0.008	0.012	
Market Based	0.010		0.008	0.012	
Scope 3	0.422		0.372	0.481	
Scope 1 Biogenic - Out of Scope (OoS)	1.793		1.857	1.718	
Scope 3 - OoS Biogenic Emissions	0.00		0.00	0.00	
% FLAG - Land Management (In scope Only)	34.9%		34.2%	35.6%	
% FLAG - Land Use Change (In scope Only)	8.8%		16.3%	2.3%	
% FLAG - Removals (In scope Only)	NR		NR	NR	

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(MT CO₂e)

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Collective CDP Filing - All Products	NA Region	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
Scope 1	422,480	418,419	4,062	71,193	307	79,138	112,362	148,250	7,476	150	0	554	1,255	1,795
Scope 2	116,221	112,211	4,010	357	122	394	1,099	6,577	103,784	298	347	2,131	660	453
Location Based	136,591	132,580	4,010	357	122	394	1,099	6,577	124,153	298	347	2,131	660	453
Market Based	116,221	112,211	4,010	357	122	394	1,099	6,577	103,784	298	347	2,131	660	453
Scope 3	1,540,773	1,398,546	240,325	287,389	139,117	215,969	338,557	291,960	262,982	36,832	11,726	12,859	33,038	6,714
Purchase goods and services	1,037,645	920,265	215,479	181,105	133,334	131,712	234,600	187,747	183,412	31,343	9,877	9,624	25,994	5,269
Sugar Supply	810,890	810,890	98,098	162,394	22,939	122,577	192,807	165,368	166,055	29,858	9,097	7,580	25,817	2,770
Forest, Land, & Agriculture Fractions	294,291	294,291	14,724	55,703	2,766	40,287	82,941	41,705	71,965	6,412	674	783	3,522	487
Land Management	199,263	199,263	11,746	55,703	2,766	26,657	48,404	34,789	32,090	4,794	493	582	2,714	318
Land Use Change	95,028	95,028	2,978	0	0	13,630	34,537	6,916	39,875	1,618	181	201	808	169
Removals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raw Material Procurement (Ingredients)	185,873	76,993	108,880	14,270	105,012	5,706	33,996	13,285	9,735	900	593	43	76	2,255
Raw Material Procurement (Packaging)	27,907	20,252	7,655	2,527	5,037	1,945	4,687	6,202	4,892	388	149	1,809	54	217
Raw Material Procurement (Maintenance Materials)	12,975	12,130	845	1,914	346	1,483	3,110	2,892	2,731	197	38	192	46	27
Capital goods	20,434	19,376	1,059	705	333	615	7,027	6,316	4,711	151	28	53	451	44
Fuel-and-energy-related activities (not included in Scope 1 or 2)	89,706	87,829	1,877	16,462	94	14,723	20,539	26,905	9,200	108	105	734	405	431
Upstream transportation and distribution	201,981	191,597	10,384	58,071	2,032	43,184	42,030	15,935	32,377	2,179	754	1,236	3,716	467
Sugar Supply	185,925	177,370	8,555	57,046	931	41,993	37,434	12,147	28,749	1,972	669	1,066	3,532	386
Raw Material Procurement (Ingredients)	5,220	4,401	819	356	600	593	1,057	1,201	1,194	86	60	20	3	50
Raw Material Procurement (Packaging)	1,826	1,348	478	137	326	154	332	381	344	27	8	103	3	11
Raw Material Procurement (Maintenance Materials)	1,911	1,778	132	266	50	212	557	430	314	37	7	27	8	4
Capital Goods	7,099	6,700	399	266	125	232	2,650	1,776	1,776	57	10	20	170	16
Waste generated in operations	21,204	20,792	412	292	61	388	223	16,631	3,257	99	5	166	36	45
Business travel	1,010	874	136	123	26	133	233	187	198	54	5	38	9	6
Employee commute	7,316	6,267	1,049	617	157	794	1,399	1,894	1,562	394	92	309	63	33
Downstream transportation and distribution	157,373	147,759	9,614	30,013	2,981	23,659	31,490	35,202	27,395	2,426	834	677	2,289	407
End of life treatment of sold products	4,104	3,788	316	0	98	761	1,015	1,143	870	80	27	22	75	13
Scope 1 Biogenic - Out of Scope (OoS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scope 3 - OoS Biogenic Emissions/ Bioenergy (extrapolation)	2,498,750	2,498,750	0	500,416	0	377,720	316,121	509,579	511,696	0	0	0	0	0

*Scope 3 Bio OoS - 3rd Party Mill biofuel use/ "green" CO₂ emissions fraction; extrapolated based on sugar purchases and ASR Primary data understanding. (Reported at refinery only to avoid double count at NROs as a "pass-through." May be allocated later.)

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Finished Goods, Sugar - Without Non-Attributable Processes	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
All Scopes	0.582	1.165	0.541	2.124	0.563	0.634	0.562	0.605	0.684	0.653	1.007	0.682	1.021
Scope 1	0.130	0.019	0.109	0.005	0.153	0.163	0.193	0.012	0.003	0.000	0.037	0.025	0.208
Scope 2	0.034	0.019	0.001	0.002	0.001	0.002	0.009	0.173	0.006	0.019	0.144	0.013	0.052
Location Based	0.040	0.019	0.001	0.002	0.001	0.002	0.009	0.207	0.006	0.019	0.144	0.013	0.052
Market Based	0.034	0.019	0.001	0.002	0.001	0.002	0.009	0.173	0.006	0.019	0.144	0.013	0.052
Scope 3	0.417	1.126	0.432	2.118	0.409	0.469	0.363	0.419	0.676	0.634	0.826	0.644	0.761
Scope 1 Biogenic - Out of Scope (OoS)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Scope 3 - OoS Biogenic Emissions	0.773	0.000	0.763	0.000	0.730	0.863	0.669	0.855	0.000	0.000	0.000	0.000	0.000
% FLAG - Land Management (In scope Only)	10.3%	4.7%	15.5%	2.0%	9.0%	10.7%	8.1%	8.6%	12.9%	4.7%	3.7%	7.8%	3.5%
% FLAG - Land Use Change (In scope Only)	4.9%	1.2%	0.0%	0.0%	4.6%	7.6%	1.6%	10.6%	4.3%	1.5%	1.3%	2.3%	1.9%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Finished Goods, Sugar - With Non-Attributable Processes	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
All Scopes	0.597	1.183	0.547	2.142	0.571	0.657	0.583	0.626	0.703	0.664	1.052	0.698	1.037
Scope 1	0.130	0.019	0.109	0.005	0.153	0.163	0.193	0.012	0.003	0.000	0.037	0.025	0.208
Scope 2	0.034	0.019	0.001	0.002	0.001	0.002	0.009	0.173	0.006	0.019	0.144	0.013	0.052
Location Based	0.040	0.019	0.001	0.002	0.001	0.002	0.009	0.207	0.006	0.019	0.144	0.013	0.052
Market Based	0.034	0.019	0.001	0.002	0.001	0.002	0.009	0.173	0.006	0.019	0.144	0.013	0.052
Scope 3	0.433	1.145	0.438	2.135	0.418	0.492	0.382	0.440	0.694	0.645	0.870	0.660	0.777
Scope 1 Biogenic - Out of Scope (OoS)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Scope 3 - OoS Biogenic Emissions	0.773	0.000	0.763	0.000	0.730	0.863	0.669	0.855	0.000	0.000	0.000	0.000	0.000
% FLAG - Land Management (In scope Only)	10.3%	4.7%	15.5%	2.0%	9.0%	10.7%	8.1%	8.6%	12.9%	4.7%	3.7%	7.8%	3.5%
% FLAG - Land Use Change (In scope Only)	4.9%	1.2%	0.0%	0.0%	4.6%	7.6%	1.6%	10.6%	4.3%	1.5%	1.3%	2.3%	1.9%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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Molasses - Without Non-Attributable Processes	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
All Scopes	0.589		0.541		0.563	0.503	0.562	0.605					
Scope 1	0.109		0.109		0.153	0.163	0.193	0.012					
Scope 2	0.059		0.001		0.001	0.002	0.009	0.173					
Location Based	0.070		0.001		0.001	0.002	0.009	0.207					
Market Based	0.059		0.001		0.001	0.002	0.009	0.173					
Scope 3	0.421		0.432		0.409	0.469	0.363	0.419					
Scope 1 Biogenic - Out of Scope (OoS)	0.000		0.000		0.000	0.000	0.000	0.000					
Scope 3 - OoS Biogenic Emissions	0.794		0.763		0.730	0.863	0.669	0.855					
% FLAG - Land Management (In scope Only)	9.9%		15.5%		9.0%	10.9%	8.1%	8.6%					
% FLAG - Land Use Change (In scope Only)	6.4%		0.0%		4.6%	7.8%	1.6%	10.6%					
% FLAG - Removals (In scope Only)	NR		NR		NR	NR	NR	NR					

Molasses - With Non-Attributable Processes	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
All Scopes	0.603		0.547		0.571	0.643	0.583	0.626					
Scope 1	0.109		0.109		0.153	0.163	0.193	0.012					
Scope 2	0.059		0.001		0.001	0.002	0.009	0.173					
Location Based	0.070		0.001		0.001	0.002	0.009	0.207					
Market Based	0.059		0.001		0.001	0.002	0.009	0.173					
Scope 3	0.435		0.438		0.418	0.478	0.382	0.440					
Scope 1 Biogenic - Out of Scope (OoS)	0.000		0.000		0.000	0.000	0.000	0.000					
Scope 3 - OoS Biogenic Emissions	0.794		0.763		0.730	0.863	0.669	0.855					
% FLAG - Land Management (In scope Only)	9.9%		15.5%		9.0%	10.9%	8.1%	8.6%					
% FLAG - Land Use Change (In scope Only)	6.4%		0.0%		4.6%	7.8%	1.6%	10.6%					
% FLAG - Removals (In scope Only)	NR		NR		NR	NR	NR	NR					

FY22 GHG Emissions ASR Group

(MT CO₂e)

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Collective CDP Filing - All Products	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
Scope 1	560,532	534,381	19,129	7,022
Scope 2	123,630	116,137	2,451	5,042
Location Based	152,405	144,624	2,451	5,330
Market Based	123,630	116,137	2,451	5,042
Scope 3	1,931,596	1,701,512	84,687	262,637
Purchase goods and services	1,378,245	1,221,069	44,690	232,446
Sugar Supply	1,156,331	1,119,679	36,651	119,961
Forest, Land, & Agriculture Fractions	402,989	366,337	36,651	18,722
Land Management	233,019	208,956	24,063	11,783
Land Use Change	169,970	157,382	12,589	6,940
Removals	0	0	0	0
Raw Material Procurement (Ingredients)	173,035	65,334	3,813	103,889
Raw Material Procurement (Packaging)	32,603	23,933	829	7,840
Raw Material Procurement (Maintenance Materials)	16,276	12,123	3,397	756
Capital goods	8,025	7,089	496	441
Fuel-and-energy-related activities (not included in scope 1 or 2)	91,941	86,890	2,881	2,170
Upstream transportation and distribution	222,047	184,016	20,329	14,981
Sugar Supply	205,100	175,278	19,857	9,965
Raw Material Procurement (Ingredients)	9,460	5,223	17	4,220
Raw Material Procurement (Packaging)	2,162	1,605	56	501
Raw Material Procurement (Maintenance Materials)	2,438	1,910	399	128
Capital Goods	2,877	2,534	187	166
Waste generated in operations	14,939	11,671	3,007	261
Business travel	1,620	1,148	304	168
Employee commute	10,625	7,933	1,452	1,241
Downstream transportation and distribution	199,283	177,410	11,282	10,592
End of life treatment of sold products	4,870	4,287	246	337
Scope 1 Biogenic - Out of Scope (OoS)	514,139	70,336	443,803	0
Scope 3 - OoS Biogenic Emissions/ Bioenergy (extrapolation)	3,650,183	3,650,183	0	0

*Scope 3 Bio OoS - 3rd Party Mill biofuel use/ "green" CO₂ emissions fraction; extrapolated based on sugar purchases and ASR Primary data understanding. (Reported at refinery only to avoid double count at NROs as a "pass-through." May be allocated later.)

FY22 GHG Emissions Intensity ASR Group

(Kg CO₂e / Kg Product)

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Collective CDP Filing - All Products	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes		0.609	0.355	1.199
Scope 1		0.137	0.064	0.031
Scope 2		0.030	0.008	0.022
Location Based		0.037	0.008	0.023
Market Based		0.036	0.008	0.022
Scope 3		0.435	0.283	1.146
Scope 1 Biogenic - Out of Scope (OoS)		0.018	1.481	0.000
% FLAG - Land Management (In scope Only)		9.1%	34.5%	4.7%
% FLAG - Land Use Change (In scope Only)		6.7%	10.0%	2.5%
% FLAG - Removals (In scope Only)		NR	NR	NR



FY22 GHG Emissions Intensity ASR Group

(Kg CO₂e / Kg Product)

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Finished Goods, Sugar - Without Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes		0.604	0.358	1.185
Scope 1		0.138	0.068	0.031
Scope 2		0.030	0.009	0.022
Location Based		0.038	0.009	0.023
Market Based		0.037	0.009	0.022
Scope 3		0.430	0.281	1.132
Scope 1 Biogenic - Out of Scope (OoS)		0.523	0.807	0.000
% FLAG - Land Management (In scope Only)		9.3%	34.9%	4.7%
% FLAG - Land Use Change (In scope Only)		6.8%	7.8%	2.6%
% FLAG - Removals (In scope Only)		NR	NR	NR

Finished Goods, Sugar - With Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes		0.614	0.380	1.199
Scope 1		0.138	0.068	0.031
Scope 2		0.030	0.009	0.022
Location Based		0.038	0.009	0.023
Market Based		0.037	0.009	0.022
Scope 3		0.439	0.303	1.147
Scope 1 Biogenic - Out of Scope (OoS)		0.523	0.807	0.000
% FLAG - Land Management (In scope Only)		9.1%	33.1%	4.7%
% FLAG - Land Use Change (In scope Only)		6.7%	7.4%	2.5%
% FLAG - Removals (In scope Only)		NR	NR	NR

FY22 GHG Emissions Intensity ASR Group

(Kg CO₂e / Kg Product)

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Raw Sugar - Without Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes			0.272	
Scope 1			0.052	
Scope 2			0.007	
Location Based			0.007	
Market Based			0.007	
Scope 3			0.213	
Scope 1 Biogenic - Out of Scope (OoS)			1.518	
% FLAG - Land Management (In scope Only)			40.7%	
% FLAG - Land Use Change (In scope Only)			19.6%	
% FLAG - Removals (In scope Only)			NR	

Raw Sugar - With Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes			0.291	
Scope 1			0.052	
Scope 2			0.007	
Location Based			0.007	
Market Based			0.007	
Scope 3			0.232	
Scope 1 Biogenic - Out of Scope (OoS)			1.518	
% FLAG - Land Management (In scope Only)			38.5%	
% FLAG - Land Use Change (In scope Only)			18.5%	
% FLAG - Removals (In scope Only)			NR	

FY22 GHG Emissions Intensity ASR Group

(Kg CO₂e / Kg Product)

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Molasses - Without Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes		0.496	0.347	
Scope 1		0.115	0.064	
Scope 2		0.018	0.008	
Location Based		0.020	0.008	
Market Based		0.021	0.008	
Scope 3		0.360	0.275	
Scope 1 Biogenic - Out of Scope (OoS)		0.523	1.481	
% FLAG - Land Management (In scope Only)		8.4%	35.1%	
% FLAG - Land Use Change (In scope Only)		7.6%	10.2%	
% FLAG - Removals (In scope Only)		NR	NR	

Molasses - With Non-Attributable Processes	ASR Group	ASR Group Refining	ASR Group Milling	All NROs
All Scopes		0.503	0.369	
Scope 1		0.115	0.064	
Scope 2		0.018	0.008	
Location Based		0.020	0.008	
Market Based		0.021	0.008	
Scope 3		0.367	0.297	
Scope 1 Biogenic - Out of Scope (OoS)		0.523	1.481	
% FLAG - Land Management (In scope Only)		8.3%	33.3%	
% FLAG - Land Use Change (In scope Only)		7.5%	9.7%	
% FLAG - Removals (In scope Only)		NR	NR	

FY22 GHG Emissions European Operations

(MT CO₂e)

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Collective CDP Filing - All Products	European Region	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaistow
Scope 1	116,270	114,940	1,330	87,262	26,878	800	1,330
Scope 2	3,270	2,965	304	0	2,945	20	304
Location Based	5,541	4,966	575	2,514	2,442	10	575
Market Based	3,270	2,965	304	0	2,945	20	304
Scope 3	378,501	370,966	17,876	247,841	87,526	35,598	17,876
Purchase goods and services	253,655	248,239	15,757	161,639	59,966	26,635	15,757
Sugar Supply	227,392	227,392	10,341	147,603	55,467	24,322	10,341
Forest, Land, & Agriculture Fractions	77,928	77,928	1,464	48,818	18,372	10,739	1,464
Land Management	52,174	52,174	1,126	38,941	8,805	4,428	1,126
Land Use Change	25,754	25,754	339	9,876	9,566	6,311	339
Removals	0	0	0	0	0	0	0
Raw Material Procurement (Ingredients)	19,230	14,692	4,538	10,324	2,904	1,465	4,538
Raw Material Procurement (Packaging)	4,683	3,903	780	2,112	1,214	576	780
Raw Material Procurement (Maintenance Materials)	2,350	2,252	98	1,599	381	273	98
Capital goods	1,438	1,401	36	926	348	127	36
Fuel-and-energy-related activities (not included in Scope 1 or 2)	17,273	16,967	305	15,830	713	424	305
Upstream transportation and distribution	63,447	62,769	678	45,072	12,958	4,739	678
Sugar Supply	60,456	60,436	20	43,475	12,490	4,472	20
Raw Material Procurement (Ingredients)	1,826	1,254	572	929	213	111	572
Raw Material Procurement (Packaging)	302	241	61	133	70	39	61
Raw Material Procurement (Maintenance Materials)	321	309	12	186	54	69	12
Capital Goods	542	528	14	349	131	48	14
Waste generated in operations	469	453	17	179	65	208	17
Business travel	373	339	34	204	88	47	34
Employee commute	1,827	1,668	159	955	466	247	159
Downstream transportation and distribution	39,310	38,439	871	22,580	12,750	3,109	871
End of life treatment of sold products	709	691	18	457	171	63	18
Scope 1 Biogenic - Out of Scope (OoS)	70,336	70,336	0	0	0	70,336	0
Scope 3 - OoS Biogenic Emissions/ Bioenergy (extrapolation)	738,113	738,113	0	479,050	180,022	79,041	0

*Scope 3 Bio OoS - 3rd Party Mill biofuel use/ "green" CO₂ emissions fraction; extrapolated based on sugar purchases and ASR Primary data understanding. (Reported at refinery only to avoid double count at NROs as a "pass-through." May be allocated later.)

FY22 GHG Emissions Intensity European Operations

(Kg CO₂e / Kg Product)

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Collective CDP Filing - All Products	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaistow
All Scopes	0.543	1.034	0.685	0.425	0.541	1.034
Scope 1	0.128	0.070	0.178	0.146	0.012	0.070
Scope 2	0.003	0.016	0.000	0.016	0.000	0.016
Location Based	0.006	0.030	0.005	0.013	0.000	0.030
Market Based	0.003	0.016	0.000	0.016	0.000	0.016
Scope 3	0.412	0.947	0.507	0.317	0.529	0.947
Scope 1 Biogenic - Out of Scope (OoS)	0.078	0.000	0.000	0.000	1.046	0.000
% FLAG - Land Management (In scope Only)	10.7%	6.0%	11.7%	7.5%	12.2%	6.0%
% FLAG - Land Use Change (In scope Only)	5.3%	1.8%	3.0%	8.2%	17.4%	1.8%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR	NR



FY22 GHG Emissions Intensity European Operations

(Kg CO₂e / Kg Product)

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Finished Goods, Sugar - Without Non-Attributable Processes	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaistow
All Scopes	0.549	1.014	0.676	0.419	0.528	1.014
Scope 1	0.131	0.070	0.178	0.146	0.012	0.070
Scope 2	0.002	0.016	0.000	0.016	0.000	0.016
Location Based	0.005	0.030	0.005	0.013	0.000	0.030
Market Based	0.002	0.016	0.000	0.016	0.000	0.016
Scope 3	0.415	0.928	0.497	0.311	0.516	0.928
Scope 1 Biogenic - Out of Scope (OoS)	0.523	0.000	0.000	0.000	1.046	0.000
% FLAG - Land Management (In scope Only)	11.2%	6.1%	11.8%	7.6%	12.5%	6.1%
% FLAG - Land Use Change (In scope Only)	5.1%	1.8%	3.0%	8.3%	17.8%	1.8%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR	NR

Finished Goods, Sugar - With Non-Attributable Processes	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaistow
All Scopes	0.557	1.034	0.685	0.425	0.541	1.034
Scope 1	0.131	0.070	0.178	0.146	0.012	0.070
Scope 2	0.002	0.016	0.000	0.016	0.000	0.016
Location Based	0.005	0.030	0.005	0.013	0.000	0.030
Market Based	0.002	0.016	0.000	0.016	0.000	0.016
Scope 3	0.423	0.948	0.507	0.317	0.529	0.948
Scope 1 Biogenic - Out of Scope (OoS)	0.523	0.000	0.000	0.000	1.046	0.000
% FLAG - Land Management (In scope Only)	11.0%	6.0%	11.7%	7.5%	12.2%	6.0%
% FLAG - Land Use Change (In scope Only)	5.0%	1.8%	3.0%	8.2%	17.4%	1.8%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR	NR

FY22 GHG Emissions Intensity European Operations

(Kg CO₂e / Kg Product)

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Molasses - Without Non-Attributable Processes	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaistow
All Scopes	0.435		0.676	0.419	0.528	
Scope 1	0.092		0.178	0.146	0.012	
Scope 2	0.010		0.000	0.016	0.000	
Location Based	0.008		0.005	0.013	0.000	
Market Based	0.010		0.000	0.016	0.000	
Scope 3	0.324		0.497	0.311	0.516	
Scope 1 Biogenic - Out of Scope (OoS)	0.523		0.000	0.000	1.046	
% FLAG - Land Management (In scope Only)	8.2%		11.8%	7.6%	12.5%	
% FLAG - Land Use Change (In scope Only)	7.8%		3.0%	8.3%	17.8%	
% FLAG - Removals (In scope Only)	NR		NR	NR	NR	

Molasses - With Non-Attributable Processes	European Refining	European NROs	Thames	Lisbon	Brindisi	Plaistow
All Scopes	0.441		0.685	0.425	0.541	
Scope 1	0.102		0.178	0.146	0.012	
Scope 2	0.010		0.000	0.016	0.000	
Location Based	0.008		0.005	0.013	0.000	
Market Based	0.010		0.000	0.016	0.000	
Scope 3	0.330		0.507	0.317	0.529	
Scope 1 Biogenic - Out of Scope (OoS)	0.523		0.000	0.000	1.046	
% FLAG - Land Management (In scope Only)	8.1%		11.7%	7.5%	12.2%	
% FLAG - Land Use Change (In scope Only)	7.7%		3.0%	8.2%	17.4%	
% FLAG - Removals (In scope Only)	NR		NR	NR	NR	

FY22 GHG Emissions Latin and Central American Operations

(MT CO₂e)

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Collective CDP Filing - All Products	LATAM / Central America	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
Scope 1	19,129	19,129	0	8,679	10,450	0
Scope 2	2,624	2,451	173	1,191	1,260	173
Location Based	2,624	2,451	173	1,191	1,260	173
Market Based	2,624	2,451	173	1,191	1,260	173
Scope 3	85,796	84,687	3,414	43,722	41,151	3,420
Purchase goods and services	45,032	44,690	2,839	27,798	16,893	2,839
Sugar Supply	36,651	36,651	2,497	23,307	13,345	2,497
Forest, Land, & Agriculture Fractions	36,651	36,651	636	23,307	13,345	636
Land Management	24,063	24,063	530	12,354	11,709	530
Land Use Change	12,589	12,589	106	10,953	1,636	106
Removals	0	0	0	0	0	0
Raw Material Procurement (Ingredients)	3,857	3,813	44	2,130	1,683	44
Raw Material Procurement (Packaging)	1,119	829	290	463	366	290
Raw Material Procurement (Maintenance Materials)	3,405	3,397	8	1,898	1,499	8
Capital goods	510	496	14	241	255	14
Fuel-and-energy-related activities (not included in Scope 1 or 2)	2,948	2,881	67	848	2,033	67
Upstream transportation and distribution	20,612	20,329	91	7,206	13,310	99
Sugar Supply	19,918	19,857	61	6,854	13,002	63
Raw Material Procurement (Ingredients)	31	17	13	6	11	13
Raw Material Procurement (Packaging)	72	56	17	31	25	17
Raw Material Procurement (Maintenance Materials)	400	399	1	223	176	1
Capital Goods	192	187	5	91	96	6
Waste generated in operations	3,011	3,007	4	1,785	1,223	4
Business travel	311	304	8	91	212	8
Employee commute	1,484	1,452	32	581	871	32
Downstream transportation and distribution	11,629	11,282	348	5,077	6,205	359
End of life treatment of sold products	257	246	11	96	151	12
Scope 1 Biogenic - Out of Scope (OoS)	443,803	443,803	0	254,165	189,637	0
Scope 3 - OoS Biogenic Emissions/ Bioenergy (extrapolation)	0	0	0	0	0	0

*Scope 3 Bio OoS - 3rd Party Mill biofuel use/ "green" CO₂ emissions fraction; extrapolated based on sugar purchases and ASR Primary data understanding. (Reported at refinery only to avoid double count at NROs as a "pass-through." May be allocated later.)

FY22 GHG Emissions Intensity

Latin and Central American Operations

(Kg CO₂e / Kg Product)

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Collective CDP Filing - All Products	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.355	0.478	0.320	0.400	0.478
Scope 1	0.064	0.000	0.052	0.079	0.000
Scope 2	0.008	0.022	0.007	0.010	0.022
Location Based	0.008	0.022	0.007	0.010	0.022
Market Based	0.008	0.022	0.007	0.010	0.022
Scope 3	0.283	0.455	0.261	0.311	0.455
Biogenic - Out of Scope	1.481	0.000	1.518	1.434	0.000
% FLAG - Land Management (In scope Only)	34.5%	25.9%	35.6%	33.2%	25.9%
% FLAG - Land Use Change (In scope Only)	10.0%	2.6%	17.1%	2.7%	2.6%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR

FY22 GHG Emissions Intensity

Latin and Central American Operations

(Kg CO₂e / Kg Product)

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Finished Goods, Sugar - Without Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.358	0.467	0.318	0.383	0.467
Scope 1	0.068	0.000	0.052	0.079	0.000
Scope 2	0.009	0.022	0.007	0.010	0.022
Location Based	0.009	0.022	0.007	0.010	0.022
Market Based	0.009	0.022	0.007	0.010	0.022
Scope 3	0.281	0.444	0.259	0.294	0.444
Biogenic - Out of Scope	1.467	0.000	1.518	1.434	0.000
% FLAG - Land Management (In scope Only)	34.9%	26.4%	35.7%	34.5%	26.4%
% FLAG - Land Use Change (In scope Only)	7.8%	2.6%	17.2%	2.8%	2.6%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR

Finished Goods, Sugar - With Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.380	0.478	0.337	0.445	0.478
Scope 1	0.068	0.000	0.052	0.079	0.000
Scope 2	0.009	0.022	0.007	0.010	0.022
Location Based	0.009	0.022	0.007	0.010	0.022
Market Based	0.009	0.022	0.007	0.010	0.022
Scope 3	0.303	0.455	0.278	0.319	0.455
Biogenic - Out of Scope	1.467	0.000	1.518	1.434	0.000
% FLAG - Land Management (In scope Only)	33.1%	25.9%	34.0%	32.7%	25.9%
% FLAG - Land Use Change (In scope Only)	7.4%	2.6%	16.4%	2.6%	2.6%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR

FY22 GHG Emissions Intensity

Latin and Central American Operations

(Kg CO₂e / Kg Product)

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Raw Sugar - Without Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.272		0.272	0.000	
Scope 1	0.052		0.052	0.000	
Scope 2	0.007		0.007	0.000	
Location Based	0.007		0.007	0.000	
Market Based	0.007		0.007	0.000	
Scope 3	0.213		0.213	0.000	
Biogenic - Out of Scope	1.518		1.518	0.000	
% FLAG - Land Management (In scope Only)	40.7%		40.7%	0.0%	
% FLAG - Land Use Change (In scope Only)	19.6%		19.6%	0.0%	
% FLAG - Removals (In scope Only)	NR		NR	NR	

Raw Sugar - Without Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.291		0.291	0.000	
Scope 1	0.052		0.052	0.000	
Scope 2	0.007		0.007	0.000	
Location Based	0.007		0.007	0.000	
Market Based	0.007		0.007	0.000	
Scope 3	0.232		0.232	0.000	
Biogenic - Out of Scope	1.518		1.518	0.000	
% FLAG - Land Management (In scope Only)	38.5%		38.5%	0.0%	
% FLAG - Land Use Change (In scope Only)	18.5%		18.5%	0.0%	
% FLAG - Removals (In scope Only)	NR		NR	NR	

FY22 GHG Emissions Intensity

Latin and Central American Operations

(Kg CO₂e / Kg Product)

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Molasses - Without Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.347		0.318	0.383	
Scope 1	0.064		0.052	0.079	
Scope 2	0.008		0.007	0.010	
Location Based	0.008		0.007	0.010	
Market Based	0.008		0.007	0.010	
Scope 3	0.275		0.259	0.294	
Biogenic - Out of Scope	1.481		1.518	1.434	
% FLAG - Land Management (In scope Only)	35.1%		35.7%	34.5%	
% FLAG - Land Use Change (In scope Only)	10.2%		17.2%	2.8%	
% FLAG - Removals (In scope Only)	NR		NR	NR	

Molasses - Without Non-Attributable Processes	LATAM / Central Amer. Milling & Refining	LATAM / Central Amer. NRO	BSI	ISN	Fortin
All Scopes	0.369		0.339	0.407	
Scope 1	0.064		0.052	0.079	
Scope 2	0.008		0.007	0.010	
Location Based	0.008		0.007	0.010	
Market Based	0.008		0.007	0.010	
Scope 3	0.297		0.280	0.319	
Biogenic - Out of Scope	1.481		1.518	1.434	
% FLAG - Land Management (In scope Only)	33.3%		33.8%	32.7%	
% FLAG - Land Use Change (In scope Only)	9.7%		16.3%	2.6%	
% FLAG - Removals (In scope Only)	NR		NR	NR	

FY22 GHG Emissions North American Operations

(MT CO₂e)

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Collective CDP Filing - All Products	NA Region	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
Scope 1	425,133	419,441	5,692	76,071	363	81,122	109,592	149,081	3,574	223	11	1,239	1,045	2,812
Scope 2	117,737	113,172	4,564	205	106	274	2,689	7,479	102,526	566	482	2,234	637	540
Location Based	144,241	139,658	4,583	205	106	274	2,700	7,474	129,005	569	485	2,243	639	542
Market Based	117,737	113,172	4,564	205	106	274	2,689	7,479	102,526	566	482	2,234	637	540
Scope 3	1,467,299	1,331,075	241,194	266,142	121,514	194,739	287,728	314,466	270,005	35,612	14,485	14,710	34,971	20,050
Purchase goods and services	1,079,558	972,830	213,850	183,874	113,446	144,039	210,620	233,662	200,636	28,787	12,344	11,344	29,207	18,723
Sugar Supply	892,287	892,287	107,123	167,083	27,776	135,430	188,971	214,391	186,412	27,128	11,345	8,923	29,013	2,938
Forest, Land, & Agriculture Fractions	288,409	288,409	16,623	46,022	2,643	40,232	61,838	63,174	77,144	4,903	1,894	1,522	5,152	510
Land Management	156,781	156,781	10,127	45,666	2,609	18,049	38,387	27,512	27,168	2,660	951	838	2,762	307
Land Use Change	131,628	131,628	6,495	356	34	22,183	23,451	35,662	49,976	2,243	942	684	2,390	203
Removals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raw Material Procurement (Ingredients)	149,949	50,641	99,307	13,218	81,777	5,387	13,708	11,438	6,891	1,051	811	109	59	15,500
Raw Material Procurement (Packaging)	26,801	20,031	6,771	2,161	3,708	1,917	5,389	5,500	5,064	413	161	2,125	109	255
Raw Material Procurement (Maintenance Materials)	10,521	9,871	650	1,413	185	1,304	2,551	2,334	2,269	196	27	186	26	30
Capital goods	6,078	5,687	390	1,135	120	893	1,192	1,418	1,050	91	37	29	94	19
Fuel-and-energy-related activities (not included in Scope 1 or 2)	71,720	69,922	1,798	91	37	14,232	19,688	28,305	7,606	216	234	916	149	246
Upstream transportation and distribution	137,988	121,776	14,058	52,415	4,729	11,628	24,407	5,373	29,960	3,764	860	1,259	3,089	504
Sugar Supply	124,726	114,842	9,884	51,292	1,078	10,315	21,905	3,142	27,492	3,572	730	1,095	3,026	382
Raw Material Procurement (Ingredients)	7,604	3,969	3,635	325	3,337	653	1,040	1,172	779	80	100	7	15	96
Raw Material Procurement (Packaging)	1,787	1,363	424	119	242	153	363	346	382	28	9	121	7	17
Raw Material Procurement (Maintenance Materials)	1,717	1,601	116	250	26	170	650	316	215	50	7	24	6	3
Capital Goods	2,153	2,006	147	428	45	337	449	396	396	34	14	11	36	7
Waste generated in operations	11,459	11,218	241	200	18	372	184	7,905	2,557	46	5	102	25	44
Business travel	935	809	126	113	24	126	215	172	183	49	4	35	8	5
Employee commute	7,314	6,265	1,049	617	157	792	1,399	1,894	1,562	394	92	309	63	33
Downstream transportation and distribution	148,344	138,971	9,373	27,696	2,887	21,953	29,082	34,618	24,990	2,191	880	693	2,261	461
End of life treatment of sold products	3,904	3,596	308	0	95	708	945	1,124	812	72	29	23	75	15
Scope 1 Biogenic - Out of Scope (OoS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scope 3 - OoS Biogenic Emissions/ Bioenergy [extrapolation]	2,912,070	2,912,070	0	541,911	0	439,364	613,284	695,510	622,000	0	0	0	0	0

*Scope 3 Bio OoS - 3rd Party Mill biofuel use/ "green" CO₂ emissions fraction; extrapolated based on sugar purchases and ASR Primary data understanding. [Reported at refinery only to avoid double count at NROs as a "pass-through." May be allocated later.]

FY22 GHG Emissions Intensity North American Operations

(Kg CO₂e / Kg Product)

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Collective CDP Filing - All Products	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
All Scopes	0.628	1.241	0.571	1.952	0.581	0.635	0.629	0.726	0.767	0.785	1.212	0.748	2.415
Scope 1	0.139	0.028	0.127	0.006	0.171	0.174	0.199	0.007	0.005	0.001	0.083	0.021	0.290
Scope 2	0.038	0.023	0.000	0.002	0.001	0.004	0.010	0.189	0.012	0.025	0.149	0.013	0.056
Location Based	0.046	0.023	0.000	0.002	0.001	0.004	0.010	0.238	0.012	0.025	0.149	0.013	0.056
Market Based	0.046	0.023	0.000	0.002	0.001	0.004	0.010	0.238	0.012	0.025	0.149	0.013	0.056
Scope 3	0.442	1.190	0.444	1.945	0.409	0.457	0.420	0.487	0.750	0.760	0.981	0.714	2.069
Biogenic - Out of Scope	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
% FLAG - Land Management (In scope Only)	8.7%	4.2%	13.4%	2.1%	6.6%	9.6%	5.9%	8.5%	8.1%	6.4%	4.7%	8.0%	1.3%
% FLAG - Land Use Change (In scope Only)	7.1%	2.6%	0.1%	0.0%	8.1%	5.9%	7.6%	13.2%	6.1%	6.3%	3.8%	6.5%	0.9%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR



FY22 GHG Emissions Intensity North American Operations

(Kg CO₂e / Kg Product)

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Finished Goods, Sugar - Without Non-Attributable Processes	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
All Scopes	0.619	1.228	0.565	1.942	0.572	0.624	0.619	0.714	0.748	0.774	1.171	0.742	2.404
Scope 1	0.139	0.028	0.127	0.006	0.171	0.174	0.199	0.007	0.005	0.001	0.083	0.021	0.290
Scope 2	0.038	0.023	0.000	0.002	0.001	0.004	0.010	0.189	0.012	0.025	0.149	0.013	0.056
Location Based	0.046	0.023	0.000	0.002	0.001	0.004	0.010	0.238	0.012	0.025	0.149	0.013	0.056
Market Based	0.046	0.023	0.000	0.002	0.001	0.004	0.010	0.238	0.012	0.025	0.149	0.013	0.056
Scope 3	0.433	1.177	0.437	1.934	0.401	0.446	0.410	0.475	0.731	0.749	0.940	0.708	2.058
Biogenic - Out of Scope	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
% FLAG - Land Management (In scope Only)	8.8%	4.3%	13.5%	2.2%	6.7%	9.8%	6.0%	8.6%	8.3%	6.5%	4.9%	8.1%	1.3%
% FLAG - Land Use Change (In scope Only)	7.2%	2.6%	0.1%	0.0%	8.2%	6.0%	7.7%	13.4%	6.3%	6.4%	3.9%	6.6%	0.9%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Finished Goods, Sugar - With Non-Attributable Processes	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
All Scopes	0.629	1.241	0.571	1.952	0.581	0.636	0.629	0.726	0.767	0.785	1.212	0.748	2.416
Scope 1	0.139	0.028	0.127	0.006	0.171	0.174	0.199	0.007	0.005	0.001	0.083	0.021	0.290
Scope 2	0.038	0.023	0.000	0.002	0.001	0.004	0.010	0.189	0.012	0.025	0.149	0.013	0.056
Location Based	0.046	0.023	0.000	0.002	0.001	0.004	0.010	0.238	0.012	0.025	0.149	0.013	0.056
Market Based	0.046	0.023	0.000	0.002	0.001	0.004	0.010	0.238	0.012	0.025	0.149	0.013	0.056
Scope 3	0.443	1.191	0.444	1.945	0.410	0.457	0.420	0.487	0.750	0.760	0.981	0.714	2.070
Biogenic - Out of Scope	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
% FLAG - Land Management (In scope Only)	8.7%	4.2%	13.4%	2.1%	6.6%	9.6%	5.9%	8.5%	8.1%	6.4%	4.7%	8.0%	1.3%
% FLAG - Land Use Change (In scope Only)	7.1%	2.6%	0.1%	0.0%	8.1%	5.9%	7.6%	13.1%	6.1%	6.3%	3.8%	6.5%	0.9%
% FLAG - Removals (In scope Only)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

FY22 GHG Emissions Intensity North American Operations

(Kg CO₂e / Kg Product)

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Molasses - Without Non-Attributable Processes	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
All Scopes	0.616		0.565		0.572	0.624	0.619	0.714					
Scope 1	0.142		0.127		0.171	0.174	0.199	0.007					
Scope 2	0.035		0.000		0.001	0.004	0.010	0.189					
Location Based	0.043		0.000		0.001	0.004	0.010	0.238					
Market Based	0.043		0.000		0.001	0.004	0.010	0.238					
Scope 3	0.431		0.437		0.401	0.446	0.410	0.475					
Biogenic - Out of Scope	0.000		0.000		0.000	0.000	0.000	0.000					
% FLAG - Land Management (In scope Only)	8.7%		13.5%		6.7%	9.8%	6.0%	8.6%					
% FLAG - Land Use Change (In scope Only)	7.2%		0.1%		8.2%	6.0%	7.7%	13.4%					
% FLAG - Removals (In scope Only)	NR		NR		NR	NR	NR	NR					

Molasses - With Non-Attributable Processes	NA Refining	NA NROs	Toronto	Bellevue	Yonkers	Baltimore	Chalmette	Crockett	Buffalo	Nashville	Cleveland	Chicago	Calumet
All Scopes	0.625		0.571		0.581	0.633	0.629	0.726					
Scope 1	0.142		0.127		0.171	0.174	0.199	0.007					
Scope 2	0.035		0.000		0.001	0.004	0.010	0.189					
Location Based	0.043		0.000		0.001	0.004	0.010	0.238					
Market Based	0.043		0.000		0.001	0.004	0.010	0.238					
Scope 3	0.440		0.444		0.410	0.455	0.420	0.487					
Biogenic - Out of Scope	0.000		0.000		0.000	0.000	0.000	0.000					
% FLAG - Land Management (In scope Only)	8.5%		13.4%		6.6%	9.7%	5.9%	8.5%					
% FLAG - Land Use Change (In scope Only)	7.1%		0.1%		8.1%	5.9%	7.6%	13.1%					
% FLAG - Removals (In scope Only)	NR		NR		NR	NR	NR	NR					

Glossary of Key Terms

Glossary of Abbreviations		Key Terminology	
BAL	Baltimore	Base year / Baseline	A historic datum (a specific year or an average over multiple years) against which a company’s emissions are tracked over time
BEL	Belleville	Biofuel	Fuel made from plant material, e.g. wood, straw and ethanol from plant matter
BRI	Brindisi	Carbon sequestration	The uptake of CO ₂ and storage of carbon in biological sinks
BSI	Belize Sugar Industries	Direct GHG emissions	Emissions from sources that are owned or controlled by the reporting company
BTU	British Thermal Unit	Emissions	The release of GHG into the atmosphere
BUF	Buffalo	Emission factor	A factor allowing GHG emissions to be estimated from a unit of available activity data (e.g. metric tons of fuel consumed, metric tons of product produced) and absolute GHG emissions
CAL	Calumet	Greenhouse gases (GHG)	For the purposes of this standard, GHGs are the six gases listed in the Kyoto Protocol: carbon dioxide (CO ₂); methane (CH ₄); nitrous oxide (N ₂ O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF ₆)
CHA	Chalmette	GHG sink	Any physical unit or process that stores GHGs; usually refers to forests and underground/deep sea reservoirs of CO ₂
CHI	Chicago	GHG source	Any physical unit or process which releases GHG into the atmosphere
CLE	Cleveland	Indirect GHG emissions	Emissions that are a consequence of the operations of the reporting company but occur at sources owned or controlled by another company
CRO	Crockett	Life Cycle Analysis	Assessment of the sum of a product’s effects (e.g. GHG emissions) at each step in its life cycle, including resource extraction, production, use and waste disposal
CWT	100 pounds of product	Product life cycle emissions	All the emissions associated with the production and use of a specific product, from cradle to grave, including emissions from raw materials, manufacture, transport, storage, sale, use and disposal
FOR	Fortín	Renewable energy	Energy taken from sources that are inexhaustible, e.g. wind, water, solar, geothermal energy, and biofuels
IPCC	Intergovernmental Panel on Climate Change	Scope	In reference to its use within the Green House Gas Protocol, the operational boundaries in relation to indirect and direct GHG emissions
ISN	Ingenio San Nicolas	Scope 1 inventory	A reporting organization’s direct GHG emissions
kW	Kilowatt	Scope 2 inventory	A reporting organization’s emissions associated with the generation of electricity, heating/cooling, or steam purchased for its own consumption
kWh	Kilowatt hour	Scope 2 Location Based	Method reflects the average emissions intensity of the regional grid where the energy is consumed
LON	London	Scope 2 Market Based	Method accounts for emissions based on the specific energy purchases a company makes
MBTU	1,000 BTUs	Scope 3 inventory	A reporting organization’s indirect emissions other than those covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions
MMBTU	1,000,000 BTUs		
MT	Metric Ton		
MWh	Megawatt hour		
MXC	Mexico City		
NAS	Nashville		
PLA	Plaistow		
SID	Sidul		
THA	Thames		
WPB	West Palm Beach		
TOR	Toronto		
YON	Yonkers		

Global Reporting Initiative (GRI) Standards

In preparing this report, we have considered the requirements, reporting principles and structure set out in the Global Reporting Initiative (GRI) standards as these are viewed as leading practice in sustainability reporting.

Topic	Content	Page number and/or URL and/or direct report	Reference
UNIVERSAL STANDARDS			
General Disclosures			
The organization and its reporting practices	Organizational details	Cover page	GRI 2-1-a
		8	GRI 2-1-b
		8	GRI 2-1-c
		8	GRI 2-1-d
	Entities included in the organization’s sustainability reporting	8	GRI 2-2-a
		Financial strategic report for UK divisions filed and publicly available in accordance with local regulation. Organization does not have consolidated financial statements across regions	GRI 2-2-b
		Reporting is done under an equity control dynamic as opposed to operational control. This only impacts Brindisi’s reporting model as ASR Group holds a 50% stake in the facility in a joint venture.	GRI 2-2-c
	Reporting period, frequency and contact point	5, 79, 87	GRI 2-3-a
		5, 87	GRI 2-3-b
		136	GRI 2-3-c
		85	GRI 2-3-d
	Restatements of information	111-128. FY22 GHG Emissions were restated to include FLAG emissions, which previously were not calculated.	GRI 2-4-a
	External assurance	78, 79	GRI 2-5-a
		Currently not applicable but third-party validation programming in developmement.	GRI 2-5-b

Global Reporting Initiative (GRI) Standards

Topic	Content	Page number and/or URL and/or direct report	Reference
Activities and workers	Activities, value chain and other business relationships	9, 10	GRI 2-6-a
		8-10, 22, 31, 32, 39-41, 43, 53, 60	GRI 2-6-b
		8, 58	GRI 2-6-c
		44, 45, 47-50	GRI 2-6-d
	Employees	8, total number of employees only	GRI 2-7-a
		DE&I metrics currently not tracked. In consideration, whilst monitoring global social and legislative discussions. May be incorporated in the future	GRI 2-7-b
		NA	GRI 2-7-c
		NA	GRI 2-7-d
		NA	GRI 2-7-e
	Workers who are not employees	Information not tracked	GRI 2-8-a
		NA	GRI 2-8-b
		NA	GRI 2-8-c
Governance	Governance structure and composition	78	GRI 2-9-a
		78	GRI 2-9-b
		78	GRI 2-9-c
	Nomination and selection of the highest governance body	Private industry. Internal Board selection process.	GRI 2-10-a
		Private industry. Internal Board selection process.	GRI 2-10-b
	Chair of the highest governance body	78	GRI 2-11-a
		Private industry. Internal Board selection process.	GRI 2-11-b
	Role of the highest governance body in overseeing the management of impacts	78, 79	GRI 2-12-a
		78, 79	GRI 2-12-b
		78, 79	GRI 2-12-c
	Delegation of responsibility for managing impacts	78, 79	GRI 2-13-a
		78, 79	GRI 2-13-b

Global Reporting Initiative (GRI) Standards

Topic	Content	Page number and/or URL and/or direct report	Reference
Governance, cont'd	Role of the highest governance body in sustainability reporting	78, 79	GRI 2-14-a
		NA	GRI 2-14-b
	Conflicts of interest	Conflicts of interest are addressed within our ASR Group Policies, available here	GRI 2-15-a
			GRI 2-15-b
	Communication of critical concerns	78, 79	GRI 2-16-a
		20 critical concerns, related to Climate, Planetary Health, Deforestation & Biodiversity, Value Chain Transparency, and Packaging, were communicated through the quarterly Sustainability Steering Committees led by the CSO.	GRI 2-16-b
	Collective knowledge of the highest governance body	78, 79	GRI 2-17-a
	Evaluation of the performance of the highest governance body	Private industry; according internal governance.	GRI 2-18-a
			GRI 2-18-b
			GRI 2-18-c
	Remuneration policies	Private industry; according internal governance.	GRI 2-19-a
		From CSO through to all management leaders, objective performance is tied to performance evaluation.	GRI 2-19-b
	Process to determine remuneration	Private industry; according internal governance.	GRI 2-20-a
		Private industry; not applicable.	GRI 2-20-b
Strategy, policies and practices	Annual total compensation ratio	DE&I metrics currently not tracked. In consideration, whilst monitoring global social and legislative discussions. May be incorporated in the future.	GRI 2-21-a
			GRI 2-21-b
			GRI 2-21-c
	Statement on sustainable development strategy	3	GRI 2-22-a
	Policy commitments	6, 15, 53-55, 61-63, 65-67, 78, 81-83	GRI 2-23-a
		15,16, 53-55, 58, 59, 61, 62, 74-76, 82	GRI 2-23-b
		62	GRI 2-23-c
		78	GRI 2-23-d
		6, 13, 15, 53-55, 58, 61-63, 82, 91	GRI 2-23-e
		16, 53-55, 61, 62, 79, 81, 82	GRI 2-23-f

Global Reporting Initiative (GRI) Standards

Topic	Content	Page number and/or URL and/or direct report	Reference
Strategy, policies and practices, cont'd	Embedding policy comments	6, 13, 16, 53-55, 62, 65-69, 72, 74-76, 78, 82	GRI 2-24-a
	Processes to remediate negative impacts	55, 83	GRI 2-25-a
		83	GRI 2-25-b
		55, 81, 83	GRI 2-25-c
		82	GRI 2-25-d
		55, 65, 81-83	GRI 2-25-e
	Mechanisms for seeking advice and raising concerns	83	GRI 2-26-a
	Compliance with laws and regulations	1 instance in which a fine was incurred	GRI 2-27-a
		In current reporting period: 1 fine for \$12k In previous reporting period: 1 fine for \$7.5k	GRI 2-27-b
		The Maryland Department of the Environment issued an Administrative Assessment Penalty (19-DP-0376) on March 13th, 2024, revised June 3, 2024, levying a fine on the ASR Baltimore location for multiple sugar losses to the harbor through stormwater or permitted process water discharges occurring between October 2023 and April 2024.	GRI 2-27-c
		Significant fines and regulatory notices of violation receipt.	GRI 2-27-d
	Membership associations	Globally: The Sustainability Consortium. Site-by-site basis: individual NGOs and smaller collectives.	GRI 2-28-a
Stakeholder engagement	Approach to stakeholder engagement	6, 13-18, 81-83, 88	GRI 2-29-a
	Collective bargaining agreements	DE&I metrics currently not tracked. In consideration, whilst monitoring global social and legislative discussions. May be incorporated in the future	GRI 2-30-a
			GRI 2-30-b
Material Topics			
Disclosures on material topics	Process to determine material topics	13-18, 88, 89	GRI 3-1-a
		88, 89	GRI 3-1-b
	List of material topics	13-18	GRI 3-2-a
		NA	GRI 3-2-b

Global Reporting Initiative (GRI) Standards

Topic	Content	Page number and/or URL and/or direct report	Reference
Disclosures on material topics, cont'd	Management of material topics	13-18, 88, 89	GRI 3-3-a
		13-18, 88, 89	GRI 3-3-b
		5, 18, 36, 63	GRI 3-3-c
		6, 26, 29, 32, 36-38, 61, 65, 67	GRI 3-3-e
		83	GRI 3-3-f
Economic Disclosures			
Topic disclosures	Direct economic value generated and distributed	58	GRI 201-1
	Financial implications and other risks and opportunities due to climate change	13-18, 88, 89	GRI 201-2
Environmental Disclosures			
Emissions	Direct (Scope 1) GHG Emissions	97, 101, 104, 108, 111, 116, 120, 125	GRI 305-1-a
		All are included within the calculations.	GRI 305-1-b
		97, 101, 104, 108, 111, 116, 120, 125	GRI 305-1-c
		20	GRI 305-1-d
		IPCC AR6	GRI 305-1-e
		87	GRI 305-1-f
		90, 91, 93	GRI 305-1-g
	Energy indirect (Scope 2) GHG emissions	97, 101, 104, 108, 111, 116, 120, 125	GRI 305-2-a
		97, 101, 104, 108, 111, 116, 120, 125	GRI 305-2-b
		All are included within the calculations.	GRI 305-2-c
		20	GRI 305-2-d
		IPCC AR6	GRI 305-2-e
		87	GRI 305-2-f
		90, 91, 93	GRI 305-2-g

Global Reporting Initiative (GRI) Standards

Topic	Content	Page number and/or URL and/or direct report	Reference
Emissions, cont'd	Other indirect (Scope 3) GHG emissions	97, 101, 104, 108, 111, 116, 120, 125	GRI 305-3-a
		All are included within the calculations.	GRI 305-3-b
		97-128	GRI 305-3-c
		92	GRI 305-3-d
		20	GRI 305-3-e
		IPCC AR6 100 Year	GRI 305-3-f
		90-95	GRI 305-3-a
	GHG emissions intensity	22, 98-100, 102, 103, 105-107, 109, 111, 112-115, 117-119, 121-124, 126-128	GRI 305-4-a
		22, 98-100, 102, 103, 105-107, 109, 111, 112-115, 117-119, 121-124, 126-128	GRI 305-4-b
		22, 98-100, 102, 103, 105-107, 109, 111, 112-115, 117-119, 121-124, 126-128	GRI 305-4-c
		Please refer to 2024 CDP public disclosure as ASR Group.	GRI 305-4-d
Waste	Waste generated	37	GRI 306-3
	Waste diverted from disposal	38-39	GRI 306-4
	Waste directed to disposal	38	GRI 306-5
Social Disclosures			
Employment	Employee benefits	67, 68, 70	GRI 401-2
Public Policy	Political contributions	ASR Group does not make political contributions on the federal level. It does contribute on the state and local levels. Information pertaining ASR Group’s political contributions is publicly available on election site boards.	GRI 415-1
Marketing and Labelling	Incidents on non-compliance concerning product and service information and labelling	There were no incidents of non-compliance reported during the reporting period	GRI 417-2
	Incidents on non-compliance concerning marketing communications	There were no incidents of non-compliance reported during the reporting period	GRI 417-3

Published in March 2025

2024 SUSTAINABILITY REPORT



ASR Group

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