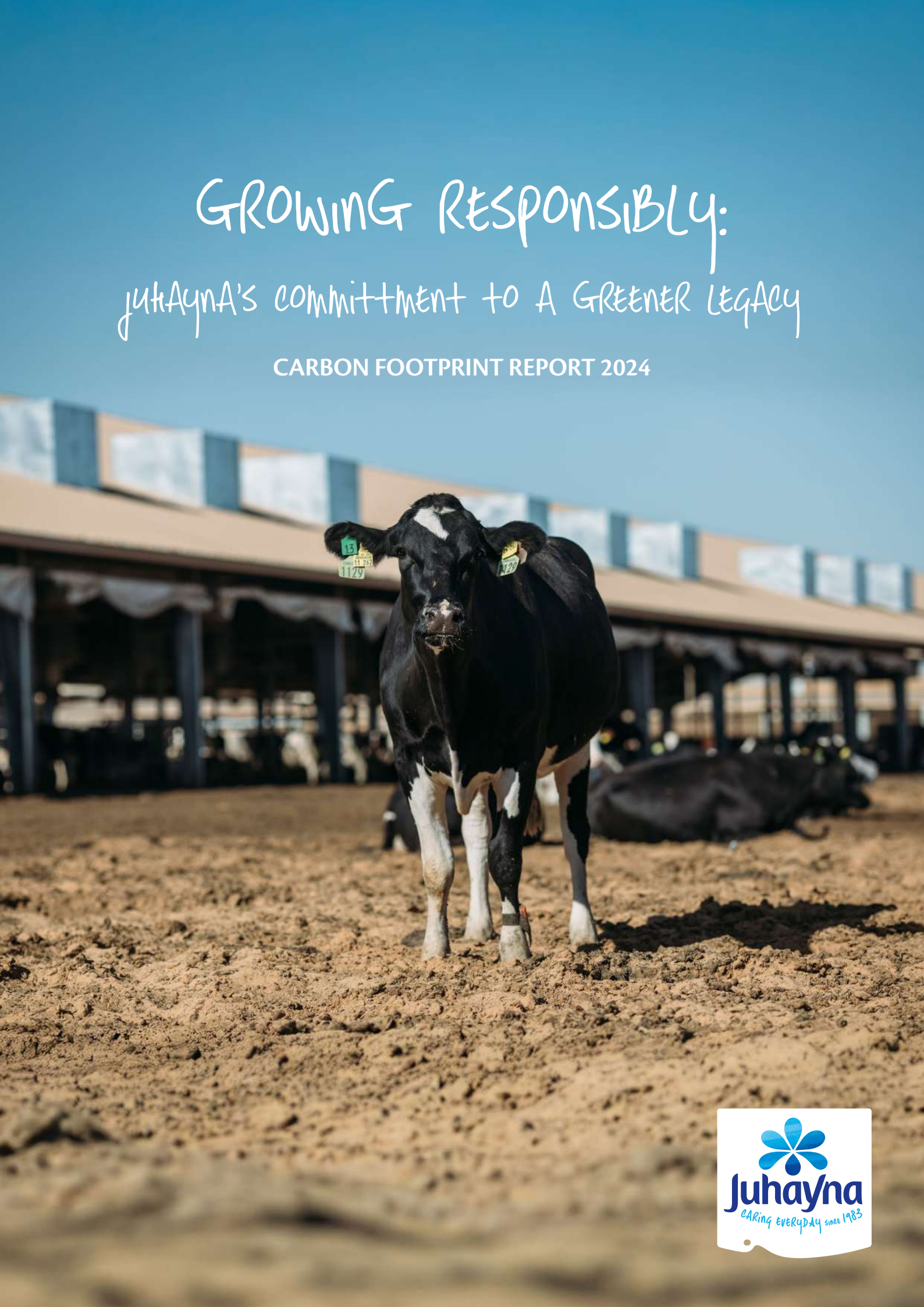
GROWING RESPONSIBLY:

JUHAYNA'S COMMITMENT TO A GREENER LEGACY

CARBON FOOTPRINT REPORT 2024



Juhayna
CARING EVERYDAY since 1983

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2024

CARBON FOOTPRINT REPORT

Juhayna
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ABBREVIATIONS & ACRONYMS

AFOLU	Agriculture, Forestry, and Other Land Use
BY	Base Year
CDP	Disclosure Insight Action (formerly the Carbon Disclosure Project)
CFP	Carbon Footprint
CH_4	Methane
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DEFRA	Department for Environment, Food & Rural Affairs
EBIT	Earnings Before Interests and Taxes
EF	Emission Factor
FMCG	Fast-Moving Consumer Goods
GHG	Greenhouse Gas
GWP	Global Warming Potential
HQ	Headquarters
HVAC	Heating, Ventilation, and Air-Conditioning
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
kWh	Kilowatt hour
LUC	Land Use Change
m^2	Square meter
m^3	Cubic meter
$mtCO_2e$	Metric tons Carbon Dioxide equivalent
MWh	Megawatt hour
p.km	Passenger kilometre
PPA	Power Purchased Agreement
t	ton
tN	ton Nitrogen
WTT	Well to Tank

EXECUTIVE SUMMARY

As a market leader in Egypt's dairy and juice production sector, Juhayna Food Industries is committed to driving sustainability across its operations. For the fifth consecutive year, we have completed a comprehensive assessment of our greenhouse gas (GHG) emissions, underscoring our dedication to environmental accountability. This report details our carbon footprint for the period of **January 1 to December 31, 2024.**

Our evaluation encompasses the full value chain, from farm operations and manufacturing to distribution and corporate activities. Aligning with global best practices, we have applied GHG Protocol standards, the IPCC Guidelines for National Greenhouse Gas Inventories, and ISO 14064-1:2018 compliance to ensure methodological rigor. The assessment includes: **Scope 1** (direct emissions from owned assets), **Scope 2** (indirect emissions from purchased energy), and material **Scope 3** emissions (indirect value chain impacts). This holistic approach enables us to identify reduction opportunities while maintaining full transparency with stakeholders about our environmental footprint.

Our organizational boundary includes:

FARMING

ENMAA FARMS

MANUFACTURING

AL-MASREYA
AL-MARWA
AL-DAWLEYA
EGYFOODS
ASSIUT

DISTRIBUTION

29 CENTERS

HEADQUARTERS

JUHAYNA'S HQ

ADJUSTED BASEYEAR CALCULATIONS

We recalculated the 2021 base year figures due to the following changes:

Emissions from Al-Esseila Farm's milk transportation were incorrectly reported under both Scope 1 and Scope 3 (Category 4). These should only appear under Scope 3, Category 4: Upstream Transportation & Distribution.

Planted areas were incorrectly reported in hectares instead of feddans, leading to an incorrect carbon sequestration calculation. The data has been recalculated using the correct units.

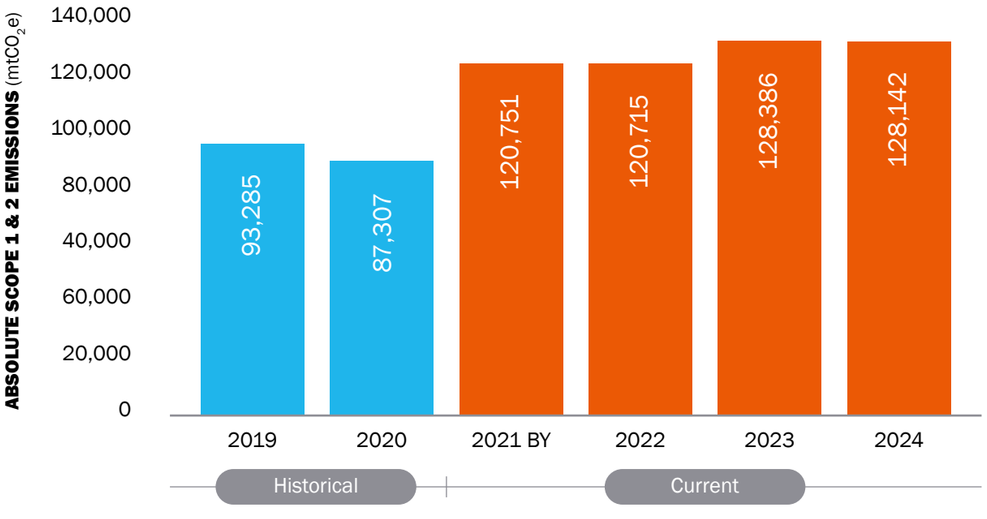
GHG EMISSION RESULTS

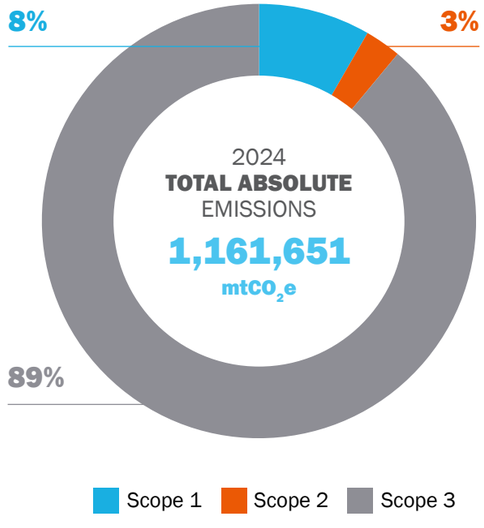
In 2024, Juhayna's total emissions reached **1,161,651 mtCO$_2$e**, marking an **18.2%** increase from 2023 and a **13.2%** rise from the 2021 base year.

Scope 1 emissions decreased slightly to **96,802 mtCO$_2$e**, down **2.7%** from 2023, but still **5.2%** higher than in 2021. Scope 2 emissions from purchased electricity increased to **31,340 mtCO$_2$e**, up **8.4%** year-on-year and **9.2%** above the base year. Carbon intensity fell to **191.0 mtCO$_2$e/ton** in 2024, down from **203.4** in 2023, despite a **6.3%** increase in production **(from 631,145 to 671,040 tons)**. Scope 3 emissions reached **1,033,508 mtCO$_2$e**, a **21.1%** increase from 2023 and a **14.1%** rise from the 2021 base year. Local farms constitute the majority of Juhayna's Scope 3 emissions, accounting for **81%** of this category, and **70%** of Juhayna's total corporate emissions footprint.

By replacing on-site PV with purchased renewables, Esseila Farm slashed **>400 mtCO$_2$e/year** in emissions reductions. Juhayna's current **34 mtCO$_2$e** reduction derives exclusively from Al-Dawleya's **73,320 kWh** solar generation.

JUHAYNA ABSOLUTE SCOPE 1& 2 EMISSIONS, YOY





2024 RESULTS

Scope 1
96,802 mtCO$_2$e

Scope 2
31,340 mtCO$_2$e

Scope 3
1,033,508 mtCO$_2$e

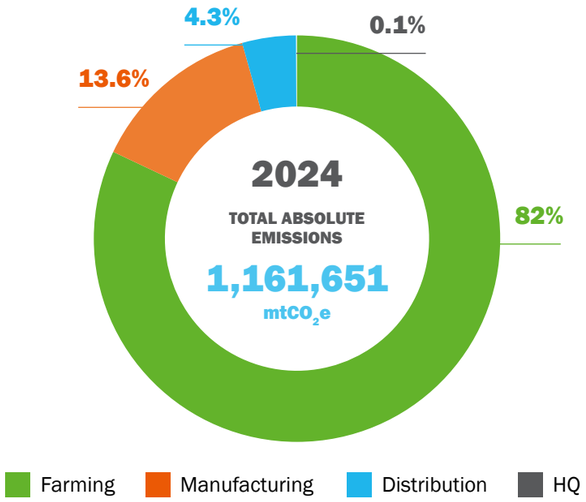
Intensity
5.3 mtCO$_2$e/Mil EGP Revenue

25.4 mtCO$_2$e/Mil EGP EBIT

191.0 kgCO$_2$e/ton of product

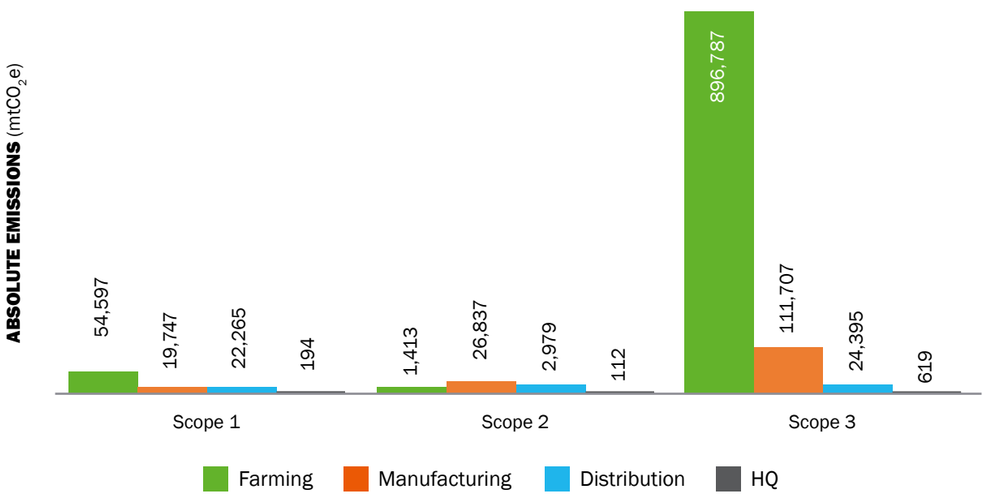
Reduced Emissions
34 mtCO$_2$e

Biogenic Carbon
511 mtCO$_2$e



SECTOR	EMISSIONS 2024 ($mtCO_2e$)	SHARE (%)
FARMING	952,797	82.0%
MANUFACTURING	158,290	13.6%
DISTRIBUTION	49,639	4.3%
HQ	925	0.1%
TOTAL EMISSIONS	**1,161,651**	

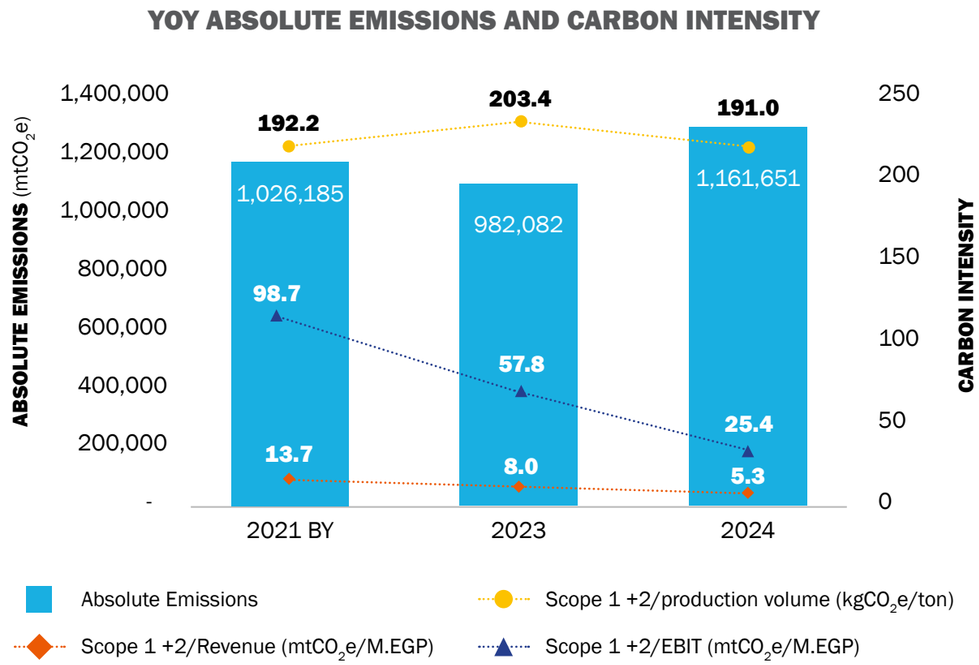
EMISSIONS PER SCOPE 2024 ($mtCO_2e$)

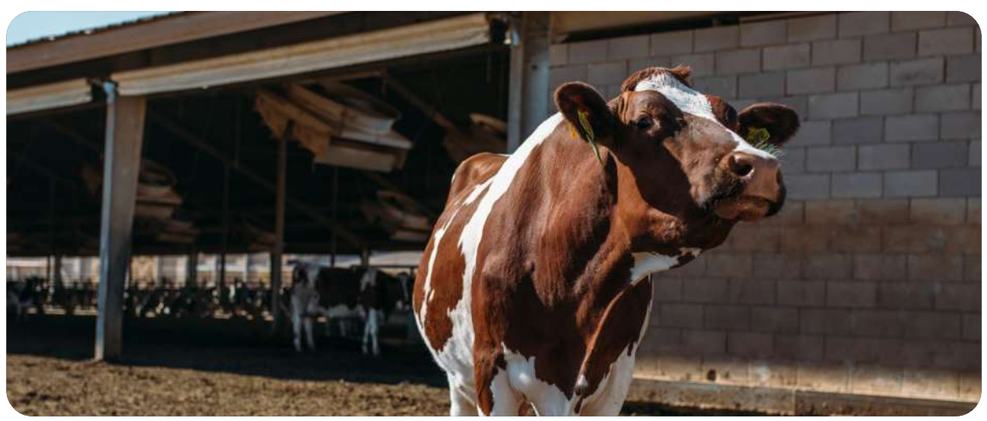


Farming operations dominate Juhayna's carbon footprint, contributing **952,797 $mtCO_2e$** (**82.0% of total emissions**). This share is driven by massive Scope 3 emissions (**896,787 $mtCO_2e$**) from agricultural supply chains, alongside significant direct emissions (Scope 1: **54,597 $mtCO_2e$**). Manufacturing represents the second-largest emissions source at **158,291 $mtCO_2e$ (13.6% of total)**, characterized by high Scope 2 emissions **(26,837 $mtCO_2e$)** reflecting energy-intensive factory operations and grid dependency. Distribution accounts for **49,639 $mtCO_2e$ (4.3%)**, with notable Scope 14 emissions **(22,265 $mtCO_2e$)**. Headquarters remains negligible at **925 $mtCO_2e$ (0.08%)**, confirming administrative functions have minimal climate impact.

CARBON INTENSITY

Between the 2021 base year and 2024, emissions intensity per revenue dropped significantly, with a **61.3%** decrease relative to revenue and a **74.3%** decrease relative to EBIT, reflecting improved carbon efficiency in financial terms. However, emissions intensity per ton of product fell only slightly by **0.6%.** In terms of absolute emissions, Scope 1 rose by **5.2%,** Scope 2 by **9.2%**, and combined Scope 1 and 2 by **6.1%**. Scope 3 emissions increased sharply by **14.1%**, driving a total emissions increase of 13.2% from the base year.





Juhayna

2030

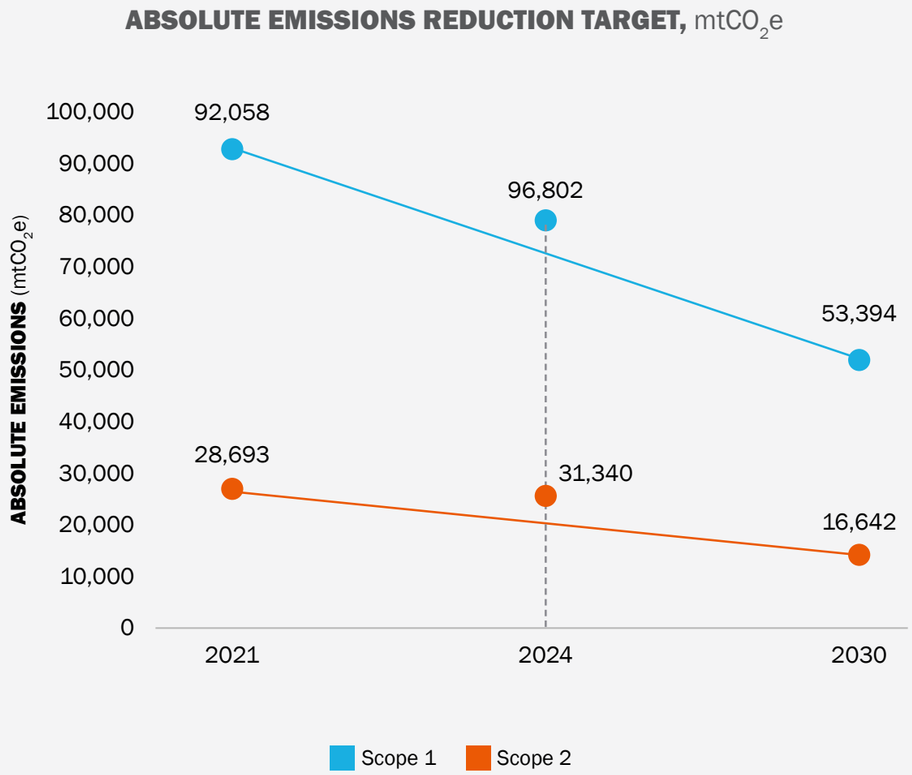
TARGET REDUCTION

42%

For Scope 1 and 2 emissions

REDUCTION TARGETS

Juhayna is committed to a **42%** reduction target for combined Scope 1 and 2 GHG emissions by 2030, using 2021 as the base year. However, the 2024 reporting data reveals that instead of decreasing, emissions have risen across both categories. Scope 1 emissions increased **by 5.2% (from 92,058 to 96,802 mtCO$_2$e)**, while Scope 2 emissions grew by **9.2% (from 28,693 to 31,340 mtCO$_2$e)**. As a result, the organization has only achieved **12%** of its Scope 1 reduction target and **22%** of its Scope 2 target.



2024 CDP DISCLOSURE CYCLE CLIMATE CHANGE QUESTIONNAIRE

In the 2024 CDP reporting cycle, Juhayna's Climate Change score **declined from a "C" to a "D",** clearly impacted by a significant tightening of CDP's global scoring methodology, which led to decreased scores across many companies worldwide. This new benchmark highlights areas for enhanced climate action, including the deeper integration of environmental considerations into our business strategy. We are evaluating our current emissions reduction targets, **which are well aligned with CDP's core requirements**, to identify opportunities for greater ambition. The company is actively addressing these evolving standards to enhance our performance in the 2025 reporting cycle.

On water security, Juhayna maintained a **"B-" score,** reaffirming our position within the Management Band. This score reflects our established water stewardship practices and acknowledges the ongoing efforts required to advance our water management initiatives. We remain committed to a path of continuous improvement to further strengthen our performance in this critical area.

CLIMATE CHANGE QUESTIONNAIRE

D

CDP Score Climate Change

WATER SECURITY QUESTIONNAIRE

B-

CDP Score Water

INTRODUCTION

INTRODUCTION

The livestock industry is a cornerstone of global agriculture, playing a pivotal role in economic development, food security, and nutrition. As one of humanity's oldest and most vital wealth resources, livestock farming not only sustains livelihoods but also supplies nutrient-rich food to populations worldwide. The sector accounts for approximately **40%** of global agricultural GDP, underscoring its economic significance. However, its rapid expansion has come at an environmental cost, contributing substantially to greenhouse gas (GHG) emissions, land degradation, and water resource depletion. Furthermore, climate change poses growing risks to livestock systems, disproportionately affecting smallholder farmers and threatening food security.

Yet, the environmental narrative surrounding livestock is evolving. Emerging research demonstrates that under certain management practices, livestock systems can contribute positively to ecosystem health. For instance, a study by Senapati et al. (2014) revealed that cattle-grazed grassland can achieve significantly higher net carbon storage **(141 gC/m²/year)** compared to ungrazed grassland **(22.1 gC/m²/year)**, as illustrated in the accompanying figure. This enhanced sequestration occurs because grazing systems create a more efficient carbon cycle: a substantial portion **(25-40%)** of the organic carbon ingested by animals is returned to the soil via manure, enriching it directly. In contrast, ungrazed systems harvested for hay export approximately 95% of this organic carbon off-site, depleting the land's natural carbon storage potential. Only a minimal fraction of carbon is ultimately exported as milk and meat, highlighting the potential for well-managed grazing to balance productivity with ecological benefits.

AVERAGE ANNUAL CARBON FLUXES

of ungrazed grassland and cattle-grazed grassland

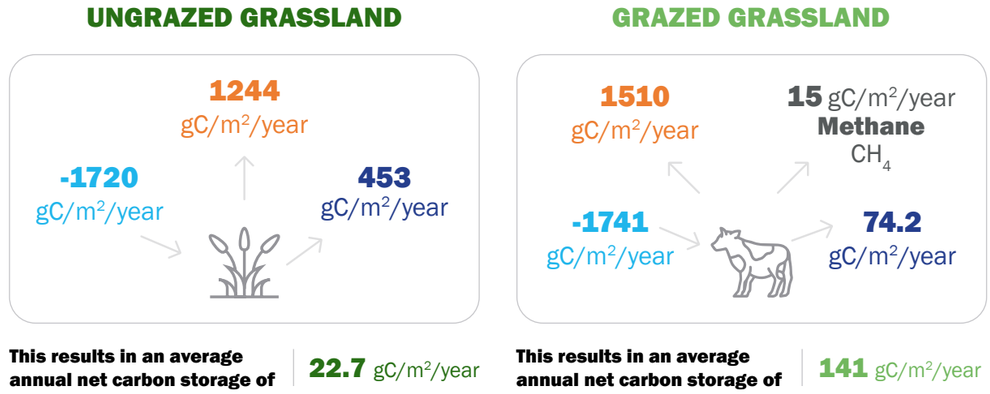
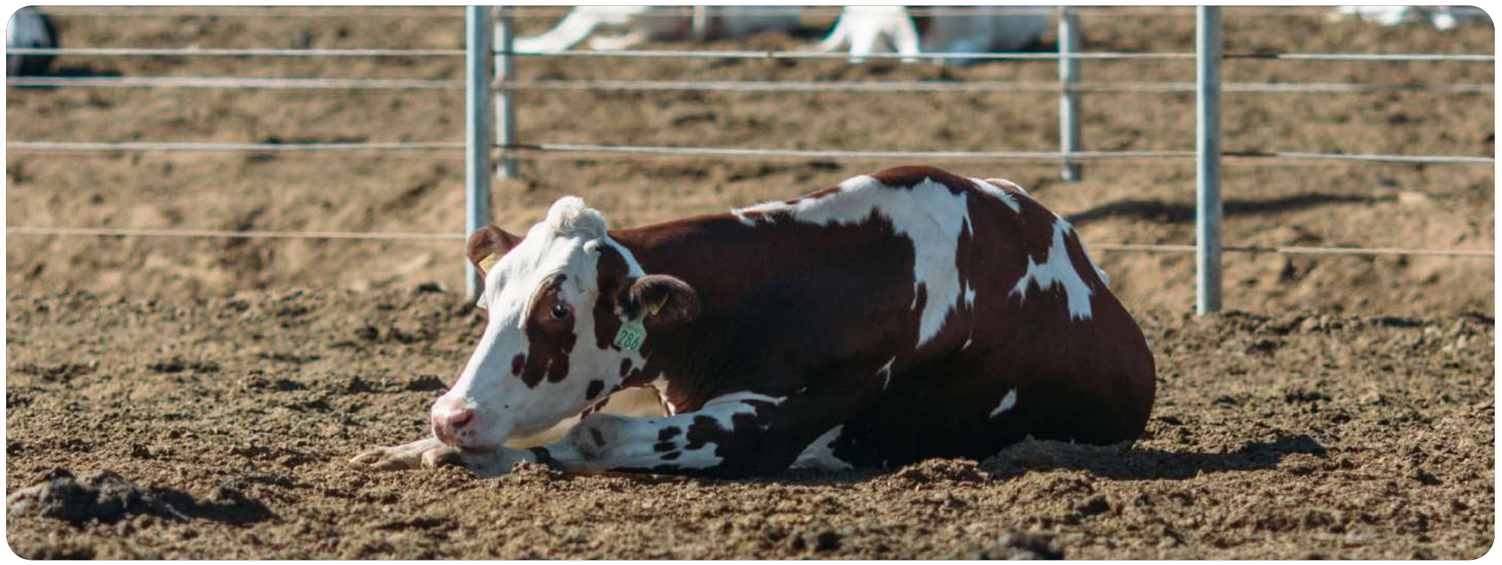


Illustration based on the diagram « Net carbon storage measured in a mowed and grazed temperate sown grassland shows potential for carbon sequestration under grazed system » de Senapati N., Chabbi A., Gastal F., Smith P., Mascher N., Loubet B., Cellier P., Naisse C., 2014.



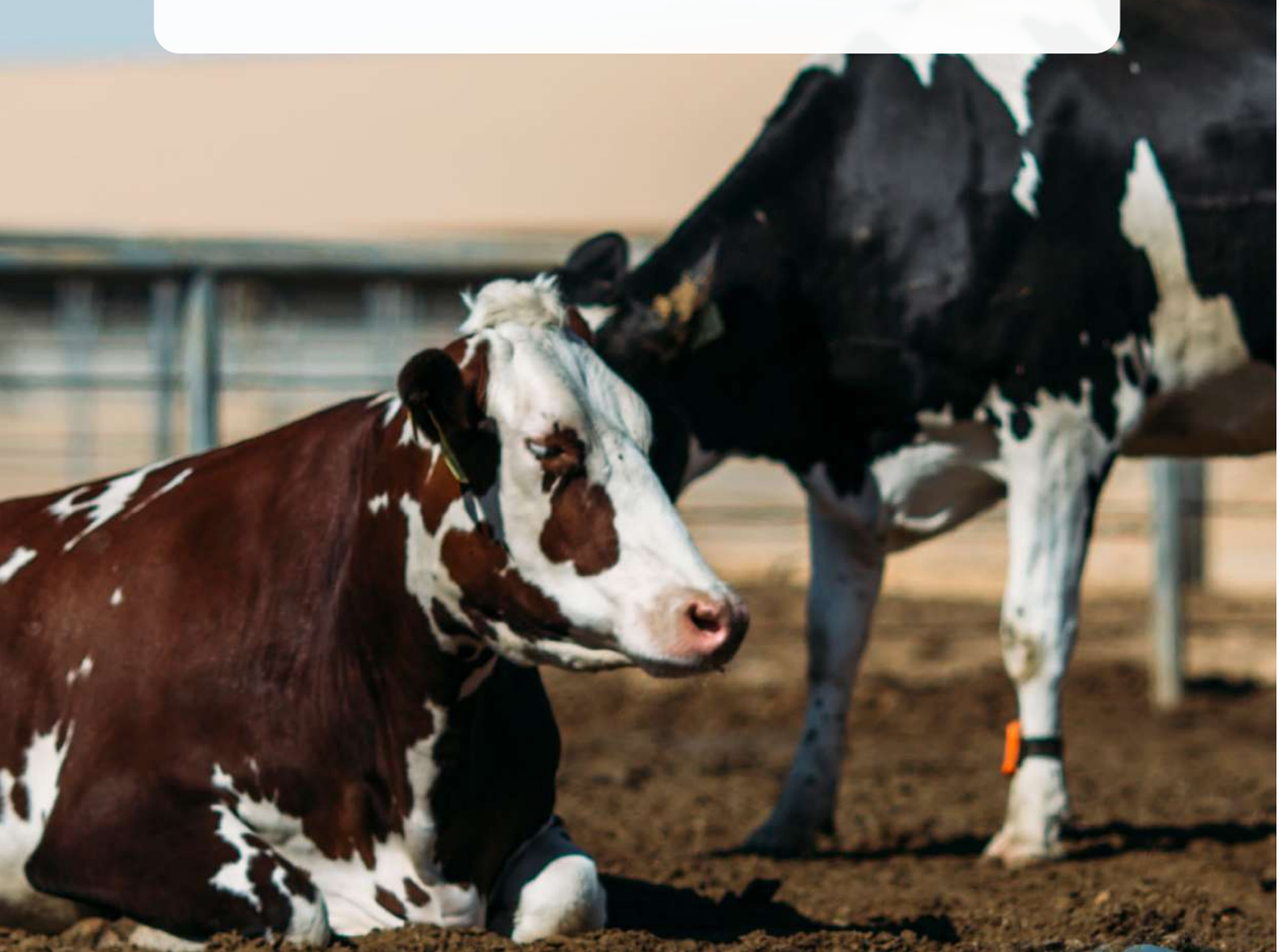
In Egypt, where the dairy sector contributes **US$ 3.3 billion annually**, representing **33%** of total animal production and **1.6%** of GDP (ILO, CAPMAS 2017), one company has consistently shaped the industry's trajectory by embracing this dual mandate of productivity and sustainability. For the sixth consecutive year, Juhayna Food Industries continues to set the standard for Egypt's dairy sector through operational excellence and sustainable innovation.

Juhayna's industry leadership extends beyond operational capabilities. For six consecutive years, the company has voluntarily reported its GHG emissions, demonstrating a commitment to transparency and accountability. Through strategic investments in energy efficiency, waste management innovation, and carbon footprint reduction, informed by insights into sustainable agricultural practices, Juhayna continues to prove that industrial growth and environmental responsibility can progress hand-in-hand.

INVENTORY BOUNDARIES

ORGANIZATIONAL BOUNDARIES

The organizational boundary plays a vital role in defining which specific businesses and operational activities are included in the company's greenhouse gas (GHG) emissions accounting and reporting. Companies typically have two primary methods to choose from for disclosure: the control approach, which includes emissions from operations over which they have financial or operational control, and the equity share approach, which accounts for emissions based on the company's equity stake in these operations. We have chosen the **operational control approach**, which covers all farms, factories, distribution centers, and headquarters within our emissions reporting framework.



CARBON FOOTPRINT REPORT 2024

OPERATIONAL BOUNDARIES

The 2024 Carbon Footprint Report provides a comprehensive assessment of emissions associated with Juhayna's business activities. These emissions are categorized into three scopes: Scope 1 includes direct emissions from assets owned or controlled by Juhayna; Scope 2 accounts for indirect emissions from purchased energy; and Scope 3 covers selected significant indirect emissions occurring across the value chain.

For this reporting year, we have incorporated the most relevant Scope 3 activities into our calculations to better reflect our upstream and downstream impact. In addition, the report accounts for biogenic carbon and the emissions reductions achieved throughout the reporting period.

This year marks the first time we are reporting on all relevant Scope 3 categories.

Notably, we have included Category 12: End-of-Life Treatment of Sold Products to account for emissions associated with the waste treatment and disposal of our product packaging after consumer use.

SCOPE 1

Direct GHG Emissions from sources that are owned or controlled by the group (i.e. any owned or controlled activities that release emissions straight into the atmosphere).

- **STATIONARY COMBUSTION** — ON-SITE FUEL COMBUSTION
- **MOBILE COMBUSTION** — OWNED VEHICLES FUEL COMBUSTION
- **FUGITIVE EMISSIONS** — REFRIGERANT LEAKAGE
- **AGRICULTURAL ACTIVITIES** — LIVESTOCK AND MANURE MANAGEMENT; FERTILIZERS

BIOGENIC CARBON

Emissions from the natural carbon cycle originate from biological sources like plants, trees, and soil. This includes emissions from the combustion, harvesting, digestion, fermentation, decomposition, or processing of biological materials, as well as CO_2 removals by soils and biomass due to afforestation and reforestation efforts.

BIOGENIC CARBON
PLANTED TREES

SCOPE 2

Indirect GHG emissions from the consumption of purchased electricity.

PURCHASED ENERGY

- PURCHASED ELECTRICITY [LOCATION-BASED]
- PURCHASED ELECTRICITY [MARKET-BASED]

REDUCED EMISSIONS

Reduced emissions refer to the greenhouse gases that are not released into the atmosphere due to specific actions taken. In the case of Juhayna, we utilize photovoltaic (PV) systems to generate electricity, thereby preventing emissions that would typically result from diesel generators or the electricity grid.

REDUCED EMISSIONS
PV PANELS

SCOPE 3

Emissions resulting from other activities that are not covered in Scope 1 and 2. These indirect emissions are a result of Juhayna's operations but are not directly owned or controlled by it.

- **PURCHASED GOODS AND SERVICES** — WATER USE; RAW MATERIALS; PACKAGING; FARMING GOODS; LOCAL FARMS
- **CAPITAL GOODS**
- **FUEL AND ENERGY RELATED ACTIVITIES** (NOT INCLUDED IN SCOPE 1 OR SCOPE 2) — ON-SITE FUEL COMBUSTION WTT; OWNED VEHICLES FUEL COMBUSTION WTT; PURCHASED ENERGY WTT; TRANSMISSION & DISTRIBUTION LOSSES
- **TRANSPORTATION AND DISTRIBUTION** — UPSTREAM TRANSPORTATION + WTT; EXPORTS
- **WASTE GENERATED IN OPERATIONS** — SOLID WASTE DISPOSAL; WASTEWATER TREATMENT
- **BUSINESS TRAVEL** — HOTEL STAYS; AIR TRAVEL + WTT
- **EMPLOYEE COMMUTING** — EMPLOYEE COMMUTING + WTT
- **END-OF-LIFE TREATMENT OF SOLD PRODUCTS** — New

CALCULATION APPROACH AND METHODOLOGY

This carbon footprint assessment adheres to the GHG Protocol Guidelines and incorporates various international standards, protocols, and guidelines specifically designed for the accounting and reporting of greenhouse gas (GHG) emissions. These include, but are not limited to, the following:

The Greenhouse Gas Protocol Guidelines which include, but not limited to:

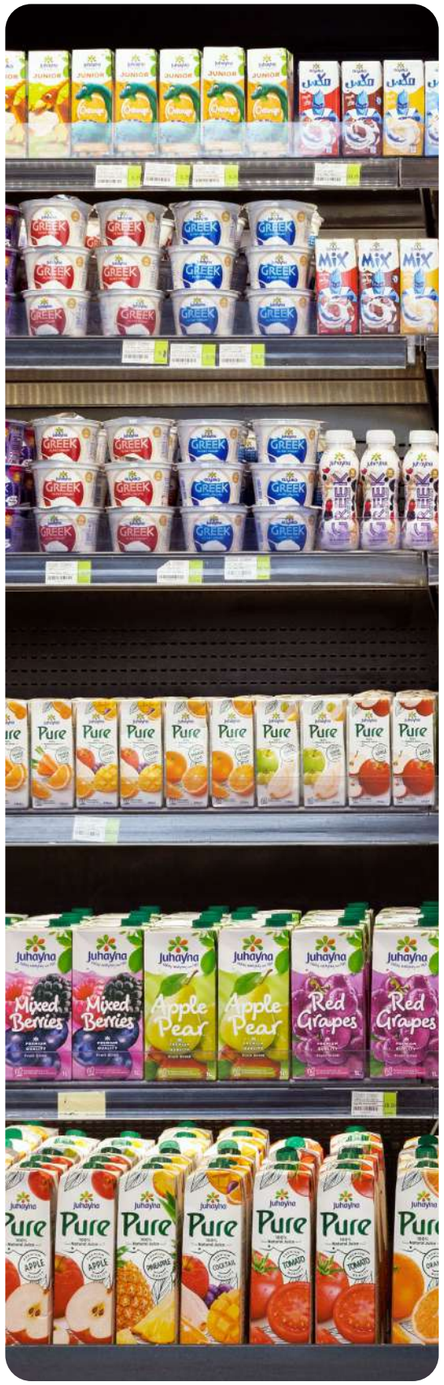
- **Corporate Accounting and Reporting Standard** - Offers guidance to companies for preparing their GHG emissions reports at the corporate level
- **GHG Protocol (Scope 2) Guidance** - Standardizes how corporations measure emissions from purchased or acquired electricity, steam, heat and cooling
- **Corporate Value Chain (Scope 3) Accounting and Reporting Standard -** Provides a framework for assessing emissions throughout the entire value chain
- **GHG Protocol Agricultural Guidance** - Interprets the Corporate Accounting and Reporting Standard for the agricultural sector

ISO 14064-1:2018

Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals

2006 Intergovernmental Panel on Climate Change (IPCC)

Guidelines for Greenhouse Gas Inventories (with 2019 Refinements), including specific reference to Volume 4 – Agriculture, Forestry, and Other Land Use (AFOLU)



In alignment with the GHG protocol, the carbon footprint assessment accounted for all seven greenhouse gases covered by the Kyoto protocol: namely carbon dioxide (CO_2), methane (CH4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

All activities related to the business have been meticulously identified, and their corresponding emissions have been accounted for. Activity data for the year 2024 was extracted from data records, and all data underwent thorough review and refinement.

The general formula applied for each activity allows us to calculate its emissions, with the unit of measurement being metric tons of carbon dioxide equivalent ($mtCO_2e$). This unit, CO_2e, signifies an amount of a greenhouse gas (GHG) whose atmospheric impact has been standardized to match the impact of one unit mass of carbon dioxide (CO_2), based on the global warming potential (GWP) of the gas.

GREENHOUSE GAS	CHEMICAL FORMULA	100-YEAR GWP
Carbon dioxide	CO_2	1
Methane	CH_4	27
Nitrous oxide	N_2O	273
Hydrofluorocarbons	HFCs	Various
Perfluorocarbons	PFCs	Various
Sulfur hexafluoride	SF_6	25,200
Nitrogen trifluoride	NF_3	17,400

The general approach for calculating emissions, measured in $mtCO_2e$, involves multiplying the activity by its corresponding emission factor. During this process, unit analysis is meticulously performed to ensure that the emission results are obtained in the desired unit, $mtCO_2e$. The general formula for calculating emissions for each activity adheres to the equation outlined below.

GHG emissions, E [$mtCO_2e$] = Activity, A [unit] x Emission Factor, EF [$mtCO_2e$/unit]

REPORTING PERIOD & BASE YEAR (BY)

The reporting period is from the **1st of January 2024** to the **31st of December 2024**.

To enhance the precision of our emissions accounting, we have conducted a thorough revision of our base year (2021) emissions data. These improvements have been consistently applied to our 2023 reporting year to maintain comparable datasets across reporting periods.

This recalibration reflects Juhayna's ongoing commitment to data integrity, as we continually strengthen our measurement and reporting frameworks to meet evolving best practices in corporate climate transparency.

This adjustment was made for two primary reasons:

Misclassification of Emissions

Emissions from Al-Esseila Farm's milk transportation were incorrectly reported under both Scope 1 and Scope 3 (Category 4). These should only appear under Scope 3, Category 4: Upstream Transportation & Distribution

1

Unit Correction for Carbon Sequestration

Planted areas were incorrectly reported in hectares instead of feddans, leading to an incorrect carbon sequestration calculation. The data has been recalculated using the correct units.

2

CARBON FOOTPRINT RESULTS

FARMING SECTOR

82% of Juhayna's GHG emissions originate in its farming operations, including owned farms (Al-Esseila, Al-Farafra) and milk suppliers. This sector remains the critical emissions hotspot

---

1

AL-FARAFRA FARM

For the first time this year, **Al-Fafafra** provides **2,525 tons** of oranges for **export**

54,986 tons of fruit

Al-Marwa Factory converts **42 tons** organic waste to animal feed.

2

AL-ESSEILA FARM

47,303 tons of milk

We scaled historical per-ton milk emission averages to this year's output across **140 network farms** for representative estimates.

3

LOCAL FARMS

233,580 tons of milk

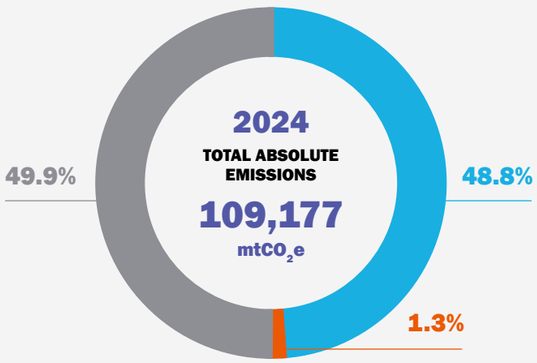
Factories

Outsourced vehicles transport fruit, and both owned and outsourced milk to factories.

AL-ESSEILA FARM

Enmaa for Livestock specializes in the construction and operation of dairy farms and owns a **568-acre** property located in Al-Esseila within the Bahareya Oasis. Al-Esseila Farm is wholly owned by the company and represents a key strategic asset, with an impressive milk production capacity of **47,303 tons** in 2024.

AL-ESSEILA FARM TOTAL EMISSIONS, 2024 ($mtCO_2e$)



Scope 1 Scope 2 Scope 3

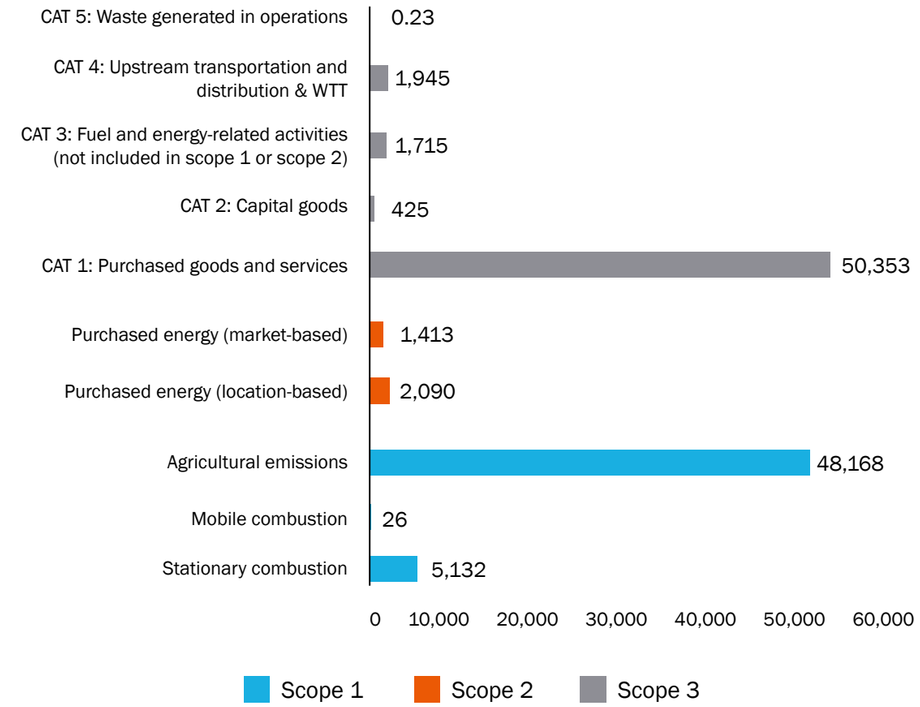
WHAT IS NEW THIS YEAR ?

Historically, the farm operated solely using on-site PV systems and consumed no grid electricity. However, in the latter five months of 2024, we began purchasing electricity from the grid. During this period, total electricity generation was **3,081 MWh**, resulting in **location-based emissions** of **2,090 $mtCO_2e$**.

This year, we shifted strategy, instead of generating power via PV panels, we reduced emissions by procuring renewable electricity. We purchased **1,476 MWh** of renewables. Consequently, our reported market-based emissions total **1,413 $mtCO_2e$**. This figure excludes the **1,476 MWh** of purchased renewables, as their emissions are accounted as zero within the market-based framework. The emissions impact of the purchased renewables under location-based accounting would have been **677 $mtCO_2e$**.

EMISSIONS PER SCOPE AND ACTIVITY ($mtCO_2e$)

AL-ESSEILA FARM TOTAL EMISSIONS, 2024 ($mtCO_2e$)

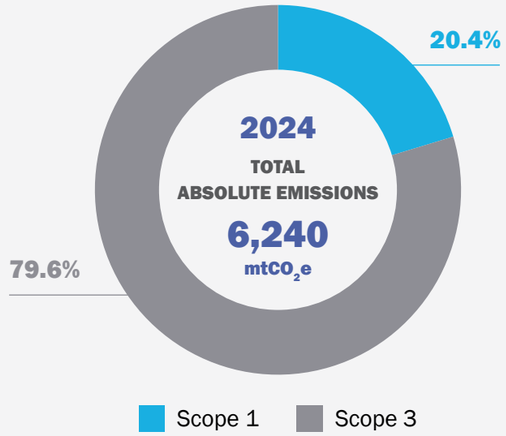


Al-FARAFRA FARM

Enmaa for Agricultural Development specializes in cultivating fruits and diverse crops across **2,772 feddans** dedicated to crop production.

In 2024, The company achieved an annual production output of **54,985 tons**.

AL-FARAFRA FARM TOTAL EMISSIONS ,2024 ($mtCO_2e$)

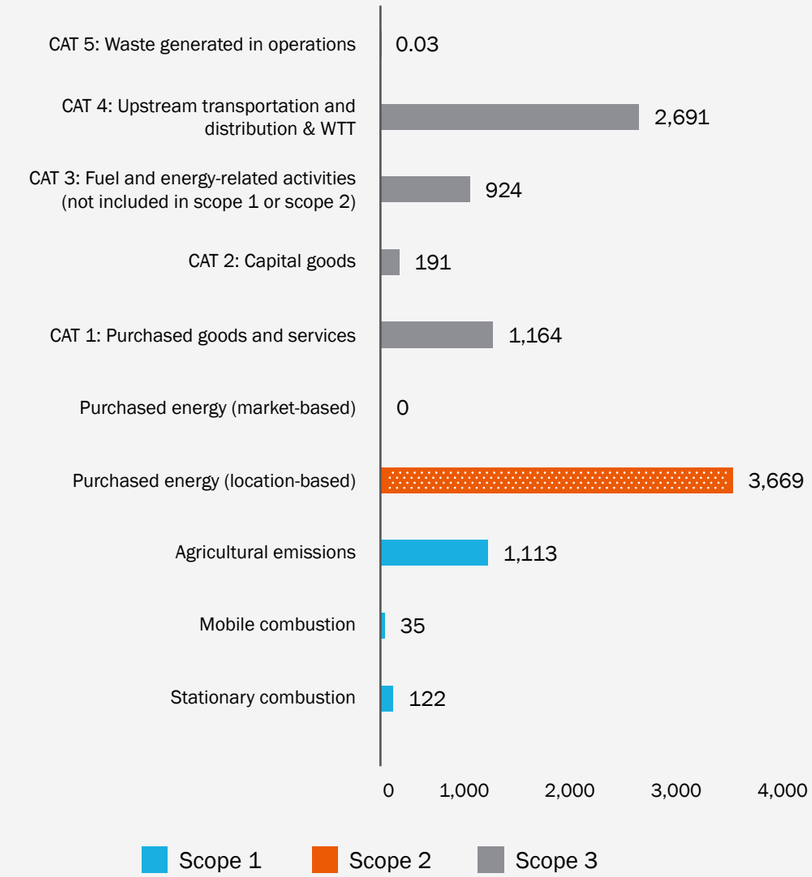


WHAT IS NEW THIS YEAR ?

Initially, the farm operated off-grid using diesel-powered generators for electricity. We have moved from operating solely on off-grid diesel generators to integrating renewable energy into our portfolio. Under market-based accounting, our purchase of **8,000 MWh** of renewable electricity results in zero emissions. The same renewable procurement under location-based accounting would have represented **3,669 $mtCO_2e$**.

EMISSIONS PER SCOPE AND ACTIVITY ($mtCO_2e$)

AL-FARAFRA FARM TOTAL EMISSIONS, 2024 ($mtCO_2e$)



BIOGENIC CARBON

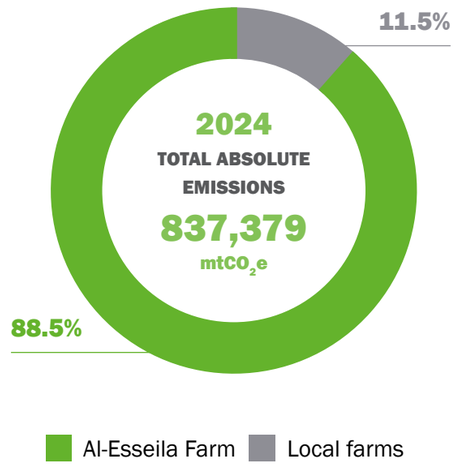
Al-Farafra Farm sequestered **511 $mtCO_2e$** of biogenic carbon through **801 trees** planted across its **324-hectare** perennial crop area.

NON-OWNED FARMS ACTIVITIES

Juhayna has established strategic partnerships with a select group of local farms to ensure a consistent supply of high-quality raw milk. In 2024, this network comprised **140 farms**, which collectively supplied **233,580 tons** of milk directly for Juhayna's operations. GHG emissions from these local farm operations represent Juhayna's primary emission source, accounting for **72%** of our total 2024 footprint.

Analysis of milk production emissions within the network reveals a significant disparity: while the Al-Esseila farm contributed only **11.5%** of the total network emissions, all other network farms collectively accounted for **88.5%**.

MILKING FARMS EMISSIONS PROFILE, 2024 ($mtCO_2e$)



ENHANCED CALCULATION METHODOLOGIES

Historically, we estimated emissions for our entire network of outsourced farms by collecting data from a sample subset. However, we identified inaccuracies stemming from fluctuations in both the **number of farms within the sample** and the **quality of collected data**.

Consequently, we adopted a revised methodology: scaling **historical per-ton milk emission factors** using **this year's total output** from all **140 network farms**. This approach provides more representative estimates and will be applied consistently in subsequent years.

FARMING EMISSIONS SUMMARY

	2021 (BY)	2023	2024
Scope 1. Direct Emissions	**56,560**	**58,886**	**54,597**
Stationary Combustion (Diesel generators)	13,493	9,723	4,246
Stationary Combustion (Diesel machinery)	881	868	1,008
Mobile Combustion	18[1]	140	62
Agricultural Emissions	42,167	48,154	49,281
Scope 2. Indirect Emissions	**NA[2]**	**NA**	**1,413**
Purchased energy (location-based)	NA	NA	5,759
Purchased energy (market-based)	NA	NA	1,413
Scope 3. Indirect Emissions	**843,046**	**783,099**	**896,786**
CAT 1 : Purchased goods and services – Farming goods	7	15,978	51,516
CAT 1 : Purchased goods and services – Local farms	835,786	762,165	837,379
CAT 2 : Capital Goods	–	388	616
CAT 3 : Fuel- and energy related activities (not included in scope 1 or scope 2)	3,345	2,518	2,639
CAT 4: Upstream transportation and distribution & WTT	3,908	2,049	4,636
CAT 5 : Waste generated in operations	–	0.38	0.26
Total Scope 1 and 3 Emissions	**2021 898,606 $mtCO_2e$**	**2023 841,985 $mtCO_2e$**	**2024 952,797 $mtCO_2e$**
Reduced Emissions	**566**	**428**	**NA**
PV panels			
Biogenic Carbon	**520[3]**	**530**	**511**
Planted trees			

Both Juhayna-owned farms (Al-Esseila and Al-Farafra) previously operated off-grid using diesel generators. In the latter five months of 2024, Al-Esseila Farm introduced grid electricity and renewable procurement while maintaining diesel backup and discontinuing its PV panels. Conversely, Al-Farafra Farm remained off-grid but transitioned exclusively to procured renewable electricity, eliminating generators entirely. Under market-based accounting, Al-Farafra's renewable procurement carries zero Scope 2 emissions. Thus, only Al-Esseila Farm reports Scope 2 emissions

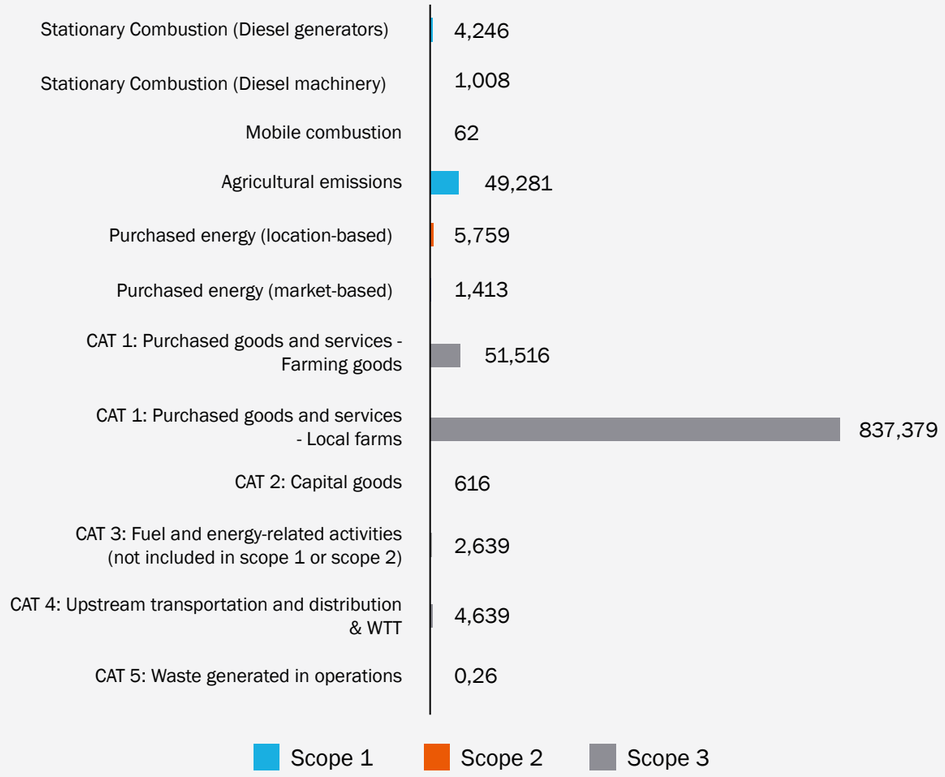
The farming sector is the largest contributor to Juhayna's emissions, accounting for approximately **86%** of total emissions in 2024. Local farms represent **78%** of overall emissions and **90%** of emissions within the farming sector. However, emissions from local farms are categorized under Scope 3. Regarding biogenic carbon, **1,263 $mtCO_2e$** were sequestered through tree planting. Land use change on our farms is calculated only once, so it is not included in this year's biogenic carbon reporting. Additionally, the installation of a **1 MW** solar PV system at Al Bahareya Oasis generated clean energy, avoiding **509 $mtCO_2e$** emissions at Al-Esseila Farm. Between 2021 and 2024, farm emissions increased by **5.5%** in Scope 1 emissions, while Scope 2 emissions decreased by **7%**, resulting in an overall reduction of total emissions by **6.2%**.

[1]Emissions from Al-Esseila Farm's milk transportation were incorrectly reported under both Scope 1 and Scope 3 (Category 4). These should only appear under Scope 3, Category 4: Upstream Transportation & Distribution.

[2]The farm's energy was supplied solely by an independent, off-grid system comprising diesel generators and on-site PV systems. As a result, there was no consumption of grid electricity or procurement of market-based renewable energy instruments, making this category not applicable.

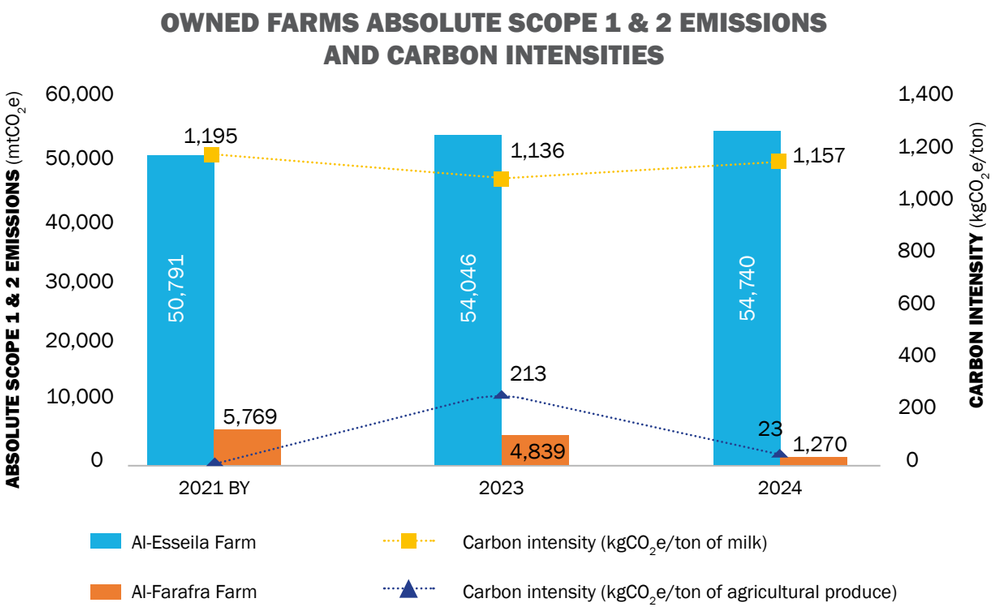
[3]Planted areas were incorrectly reported in hectares instead of feddans. Carbon sequestration was recalculated using converted units.

FARMING ACTIVITIES EMISSIONS SUMMARY 2024 ($mtCO_2e$)



FARMING TOTAL EMISSIONS PER FARM, 2024 ($mtCO_2e$)

FARMING EMISSIONS SUMMARY YOY



Al-Esseila Farm demonstrated an upward trend in Scope 1 & 2 absolute emissions, though its carbon intensity ($kgCO_2e$/ton of milk) initially decreased before rising. In 2024, absolute emissions grew by **7.8%** compared to the BY and by a more moderate **1.3%** compared to the previous year. Meanwhile, carbon intensity saw a **3.2%** reduction from the BY, followed by a slight **1.8%** increase year-over-year.

In contrast, Al-Farafra Farm achieved significant reductions in both absolute emissions and carbon intensity ($kgCO_2e$/ton of agricultural produce). In 2024, absolute emissions fell by **78%** compared to the BY and **73.8%** compared to the prior year. Carbon intensity dropped by an impressive **89%** year-over-year (unreported in the BY due to missing production data).

Al-Farafra Farm's substantially lower Scope 1 emissions than those of Al-Esseila Farm, demonstrate the inherent differences between crop production and dairy farming systems. Al-Farafra's entire Scope 1 output of **1,270 $mtCO_2e$** represents **just 2.4%** of Al-Esseila's **53,326 $mtCO_2e$** footprint. This 42-fold disparity primarily stems from Al-Esseila's dairy-specific emissions, where enteric fermentation and manure management account for **48,168 $mtCO_2e$ (90% of total Scope 1)**, emissions sources completely absent in Al-Farafra's crop operations.

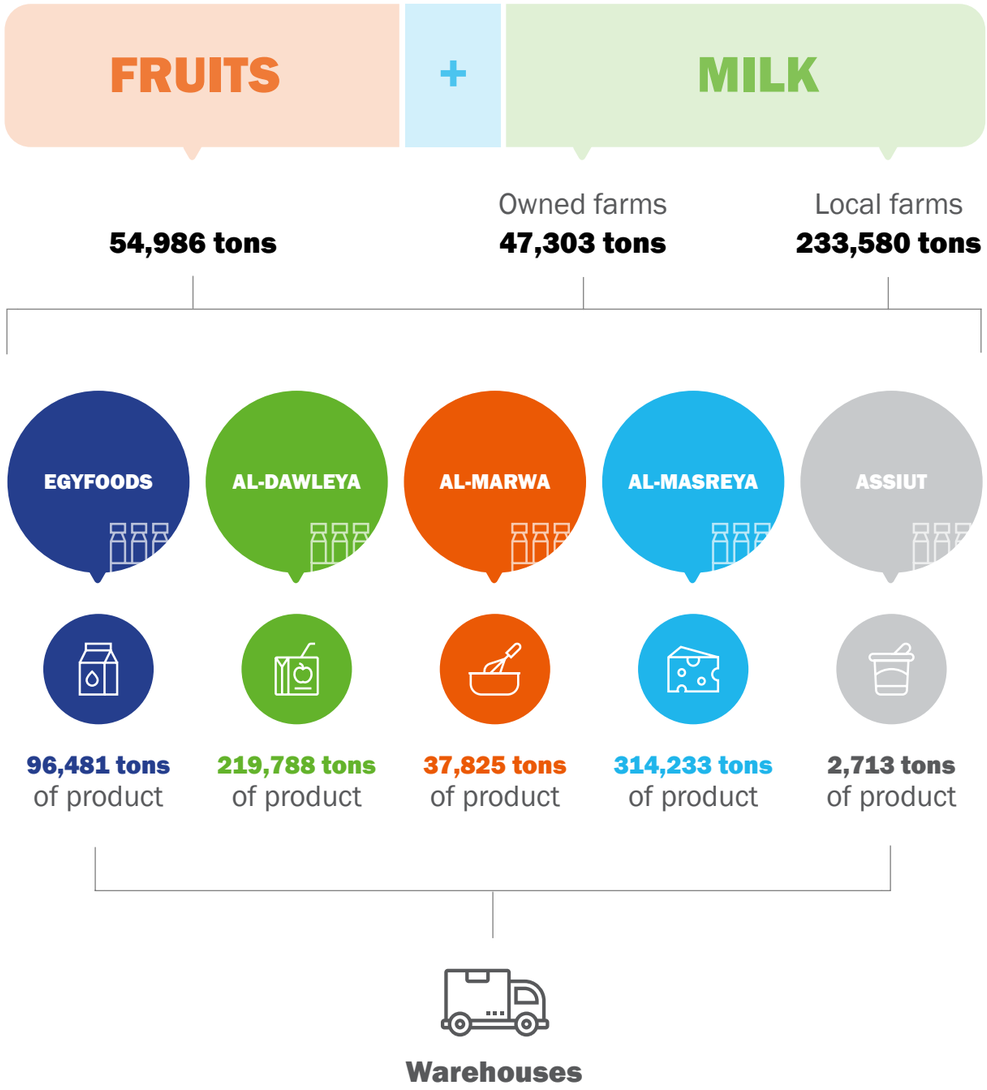
Carbon intensity metrics further emphasize this divide. Al-Esseila's milk production shows an intensity of **1,157 $kgCO_2e$/ton**, compared to Al-Farafra's minimal **23 $kgCO_2e$/ton**, a **49-fold** difference that persists despite Al-Esseila's **11%** production growth since 2021.

How are we farming for a sustainable future?

Initiative	Strategic Alignment	Description	Quantified Impact
Advanced cooling technology in barns and milking parlors	**Energy Efficiency & Climate Resilience**	Juhayna installed VFD-equipped fans in barns and milking parlors, adjusting speed to temperature and humidity. This reduces energy use, ensure§s optimal conditions for animals and staff, and improves productivity and milk quality.	Significant reduction in energy use vs. conventional fans Improved animal welfare and worker productivity
Soil fertility enhancement through sustainable practices	**Resource Optimization & Sustainable Agriculture**	Cow waste is repurposed daily as natural fertilizer via automated cleaning, reducing industrial fertilizer use. Cultivation of grains and corn across farms improves grazing, preserves soil health, and lowers feed-related costs and emissions.	100% of cow waste repurposed as natural fertilizer, reducing the need for industrial alternatives Lower feed production cost emissions
Circular Economy in Action	**Waste Reduction & Circular Economy Integration**	As part of our commitment to closing material loops within operations, Juhayna diverted 42 tons of fruit waste from Al-Marwa Factory away from landfill, repurposing it into cattle feed. This initiative reduces waste, improves resource efficiency, and decreases reliance on external feed sources.	42 tons of fruit waste diverted from landfill; 28 $mtCO_2e$ emissions avoided Reduced reliance on external feed sources
Renewable Energy Procurement via PPAs	**Renewable energy transition and emissions reduction**	Secured renewable electricity through PPAs for the key farm operations: Al-Esseila Farm (1,476 MWh) and Al-Farafra Farm (8,000 MWh).	The purchased renewables avoided 4,346 $mtCO_2e$ in emissions under location-based accounting

MANUFACTURING

Juhayna operates five state-of-the-art manufacturing facilities within 6th of October City. Equipped with automated production and packaging lines, these plants produced **671,040 tons** of dairy, juices, and food products in 2024, a **6% year-on-year increase**. Volume leadership was driven by brand Al-Masreya (**47%** of total output), followed by Al-Dawleya **(33%)**.

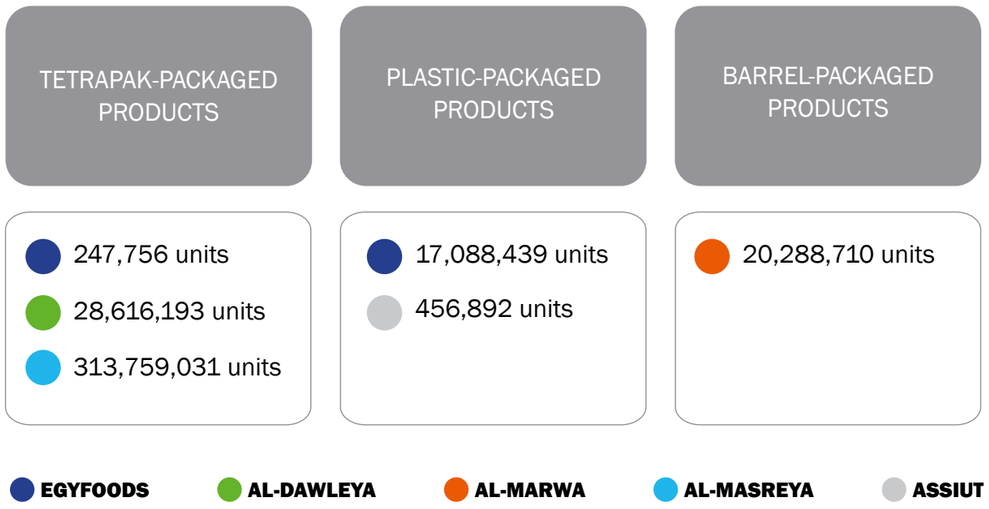


Expanded scope 3 emissions boundary

Juhayna now reports on all material Scope 3 categories, significantly advancing our emissions accountability. Critical to this expansion is the inclusion of **Category 12: End-of-Life Treatment of Sold Products**, which quantifies disposal-phase emissions from Juhayna-branded packaging post-consumer use.

This expansion is strategically critical for Juhayna, as Egypt's leading producer of daily-consumed packaged goods. Quantifying end-of-life packaging emissions enables us to:

- Target reduction initiatives for high-impact materials (e.g.,Tetra Paks)
- Strengthen credibility with global supply chain partners and investors.



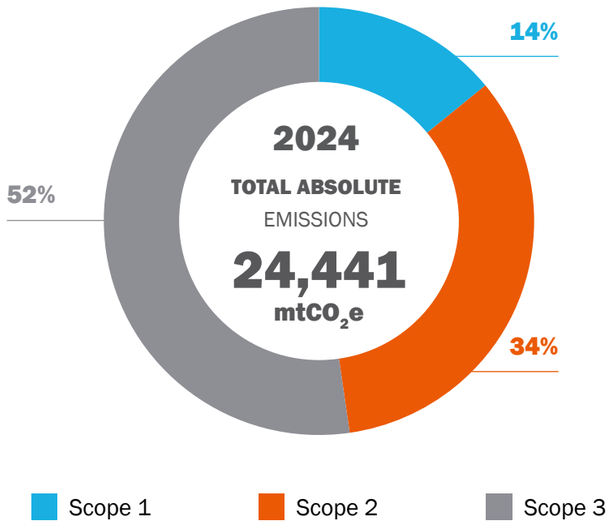
EGYFOODS

Operating from a **35,472 m²** facility, EgyFoods produced **96,481 tons** of goods in 2024 , a slight **0.9% increase** over 2023 volumes. Total reported emissions reached **24,441 mtCO$_2$e**, with Scope 3 emissions accounting for **52%** of the total. Scope 2 followed at **34%** and Scope 1 at **14%**. Purchased energy under Scope 2 represented the largest single source at **34%** of total emissions, while purchased goods and services under Scope 3 contributed **28%** of total emissions, representing **54%** of all Scope 3 emissions.

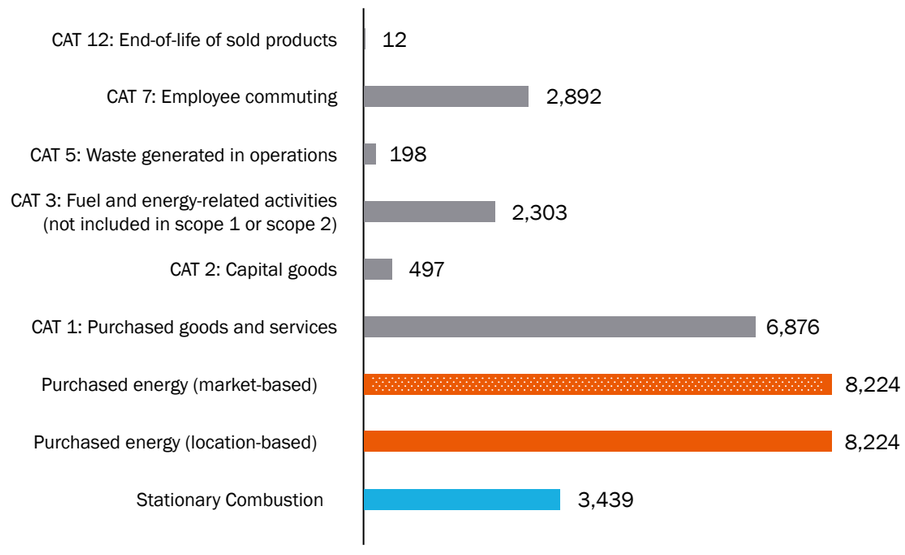
EgyFoods demonstrated limited Scope 1 emissions growth to **10%** year-on-year against modest **0.9%** production expansion. These direct emissions remain **1%** below our base year. Meanwhile, Scope 2 maintained a **4.6%** reduction versus base yearthough stabilized with only **0.1%** year-on-year improvement. Most notably, Scope 3 emissions accelerated their decline, dropping **21.7%** from base year and achieving a **34.3%** year-on-year reduction. Our first-time reporting of **Category 12 emissions** quantifies **12 mtCO$_2$e** from post-consumer packaging waste for high-volume products: *yoghurt containers, cream lines (whipping/sour/cooking), Zabado beverages, Greek yoghurt, and pudding.*

EgyFood's carbon intensity continues to show an upward trend, reaching **120.9 kgCO$_2$e per ton of product** in 2024. This represents a **13%** increase from the BY and a **1.7%** rise from the previous year.

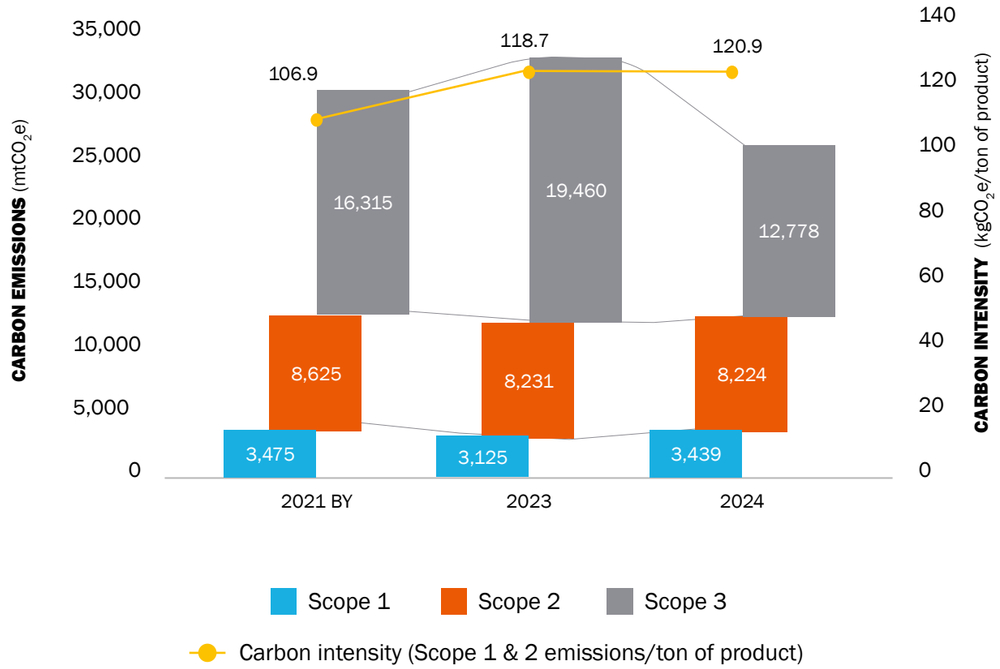
EGYFOODS FACTORY TOTAL EMISSIONS, (mtCO$_2$e)



EGYFOODS EMISSIONS PER SCOPE AND ACTIVITY, 2024 ($mtCO_2e$)



EGYFOODS EMISSIONS AND PRODUCTION TRENDS OVER THE YEARS



AL-DAWLEYA

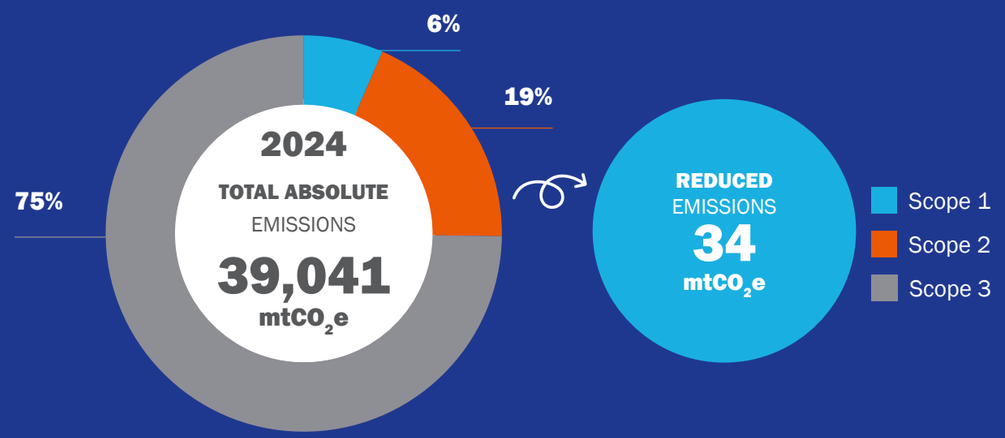
In 2024, Al-Dawleya achieved an impressive annual production volume of **219,788 tons**, representing an impressive increase of **15.5%** from the previous year. Since its establishment in 2009, this state-of-the-art manufacturing facility, spanning **53,425 m²,** has been a leader in producing and packaging fresh juices and beverages.

Al-Dawleya's 2024 emissions totaled **39,041 mtCO$_2$e**, revealing a carbon footprint heavily weighted toward **value-chain impacts (Scope 3: 75%)**, with smaller contributions from energy **(Scope 2: 19%)** and **direct operations (Scope 1: 6%)**. Within this profile, purchased goods and services dominated, accounting for **80%** of Scope 3 emissions and **60%** of Al-Dawleya's total emissions.

Despite a **2.2%** annual decrease in carbon intensity, absolute emissions trends varied significantly. **Scope 1** decreased marginally (**1.1% vs. base year**) but rose **8.6%** from 2023. **Scope 2** grew **11.5%** versus base year and **13.6%** annually, indicating increased grid reliance amid expansion. **Scope 3** surged **119.2%** from base year and **127%** from 2023. Our new Category 12 accounting reveals **1,332 mtCO$_2$e** from end-of-life packaging for key brands (*Juhayna Juice, Bekehro, Pure Juice, Happy Kitchen*).

Al-Dawleya's carbon intensity continues to show a downward trajectory, reaching **44.8 kgCO$_2$e per ton of product** in 2024. This represents a **5.5%** reduction from the BY and a **2.8%** decrease from the previous year.

AL-DAWLEYA FACTORY TOTAL EMISSIONS (mtCO$_2$e)

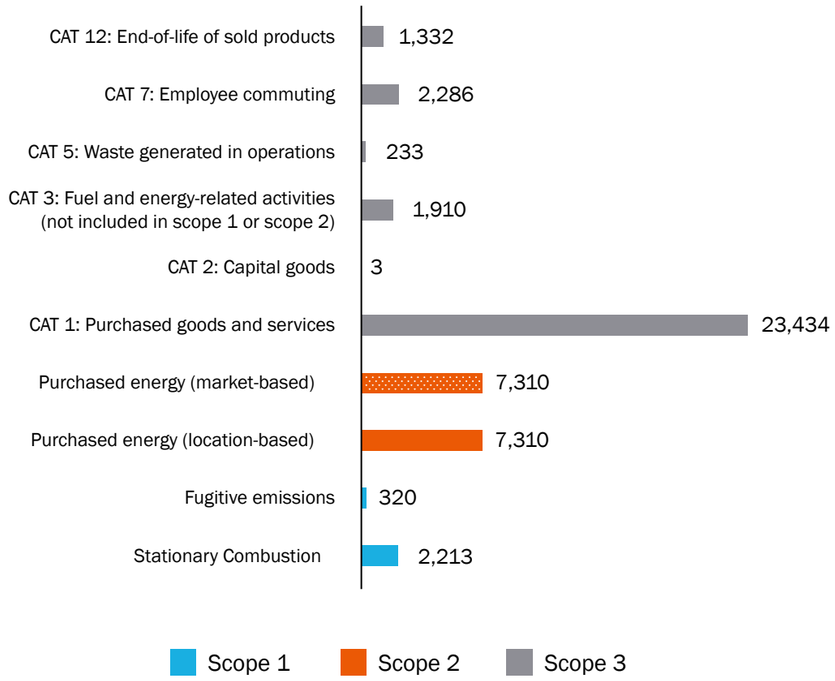


Juhayna significantly expanded its on-site solar capacity in 2024, tripling renewable energy generation to **73,320 kWh** (vs. **23,184 kWh** in 2023).

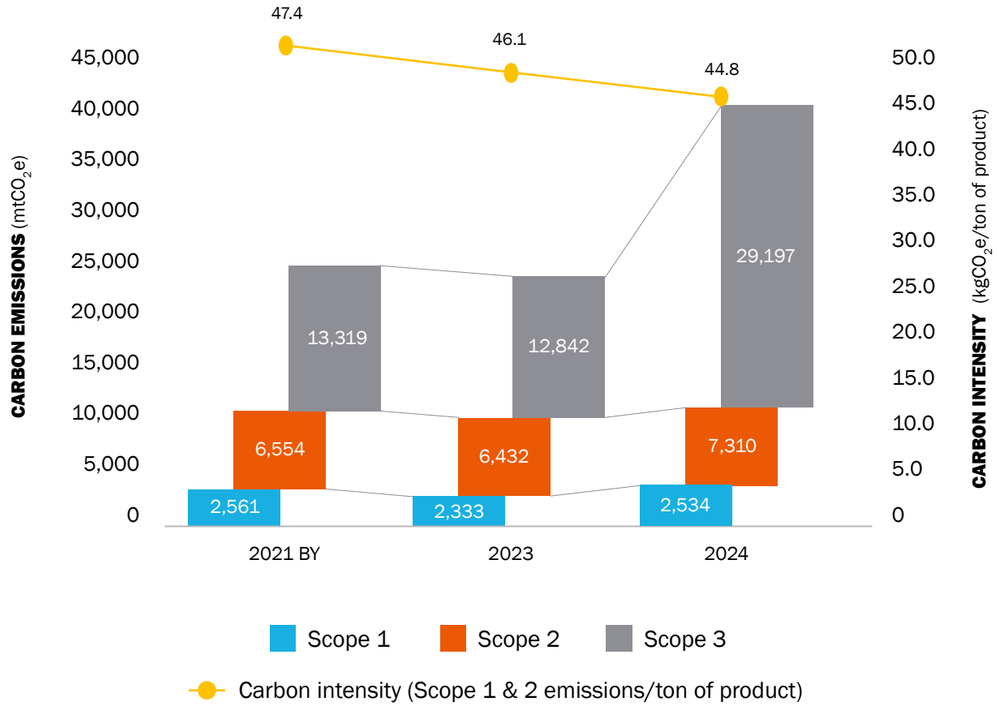
This substantial growth was realized by strategically extending PV panel installations across car shade structures, maximizing the use of existing infrastructure without requiring new land allocation, while sharply reducing grid dependence. The initiative avoided **34 mtCO$_2$e** this reporting year, doubling last year's emissions reduction. Relying on this expanded on-site renewable generation is environmentally far superior to increasing dependence on the grid.

This point is highlighted by the fact that grid energy consumption increased by less than **20%**, starkly contrasting with the over **216% rise** in on-site renewable energy production. This demonstrates Juhayna's effective decoupling of production growth from increased grid reliance and associated emissions.

AL-DAWLEYA EMISSIONS PER SCOPE AND ACTIVITY, 2024 ($mtCO_2e$)



AL-DAWLEYA FACTORY EMISSIONS AND CARBON INTENSITY TRENDS OVER THE YEARS



AL-MARWA

In 2024, Al-Marwa recorded an annual production volume of **37,825 tons**, reflecting a **3.9% decrease** compared to the previous year. This specialized facility focuses on fruit processing, primarily manufacturing fruit concentrates and pulps to serve both internal company requirements and export markets.

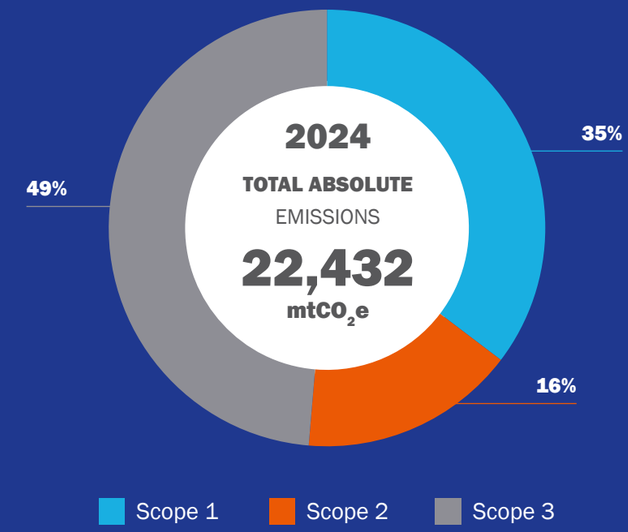
Al-Marwa reported total emissions of **22,432 mtCO$_2$e**. Emissions were distributed across scopes as follows: **35% Scope 1**), **16% Scope 2**, and **49% Scope 3**. Stationary combustion constituted the single largest source, responsible for **35%** of Al-Marwa's total emissions and representing the majority of its Scope 1 footprint. Within Scope 3, purchased goods and services emerged as the most significant contributor, accounting for **24%** of the factory's total emissions.

Notable year-on-year increases were observed across all emission scopes. Scope 1 emissions rose by **14.6%** from the base year, followed by **2.2% increase** recorded between the previous year and 2024. Scope 2 emissions rose by **51%** from the BY, despite a marginal **0.5%** decrease between 2023 and 2024. The most significant increase occurred in Scope 3 emissions, which climbed **199%** from the BY and increased **51%** from the previous year.

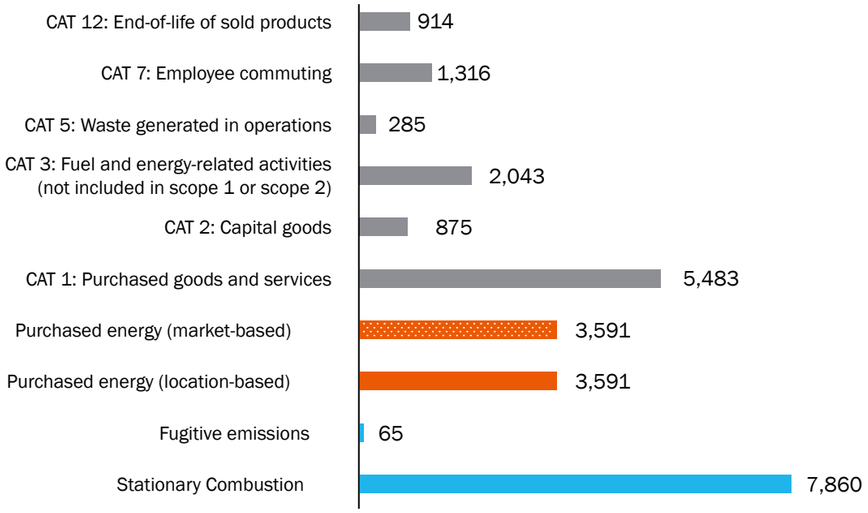
The newly measured new Category 12 totaled **914 mtCO$_2$e**, originating from the post-consumer disposal of packaging materials associated with Al-Marwa's barrel-packaged products, primarily *fruit concentrates and flavor compounds.*

Al-Marwa sustained a reduction in carbon intensity throughout 2024, achieving **304.5 kgCO$_2$e per ton of product** , a **12.6%** improvement from the BY and **2.4%** decrease year-over-year.

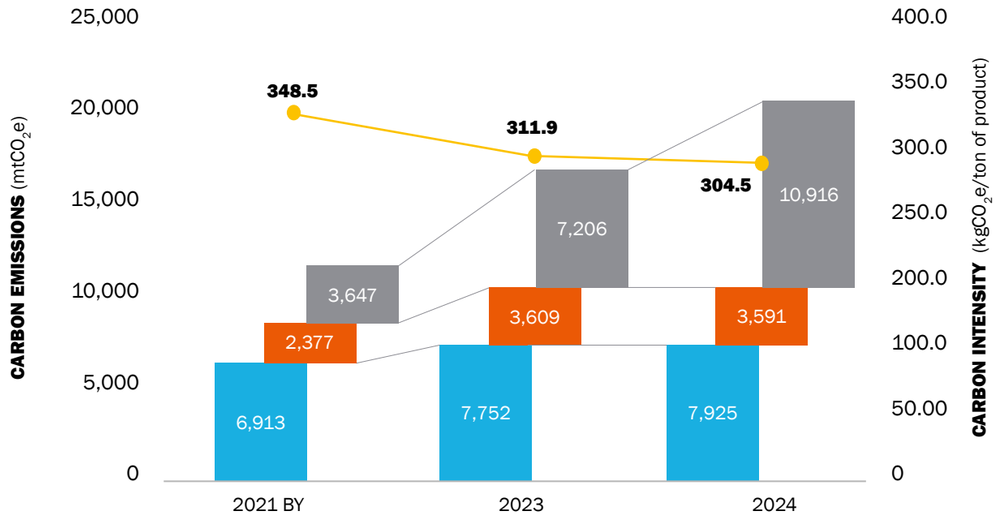
AL-MARWA FACTORY TOTAL EMISSIONS
(mtCO$_2$e)

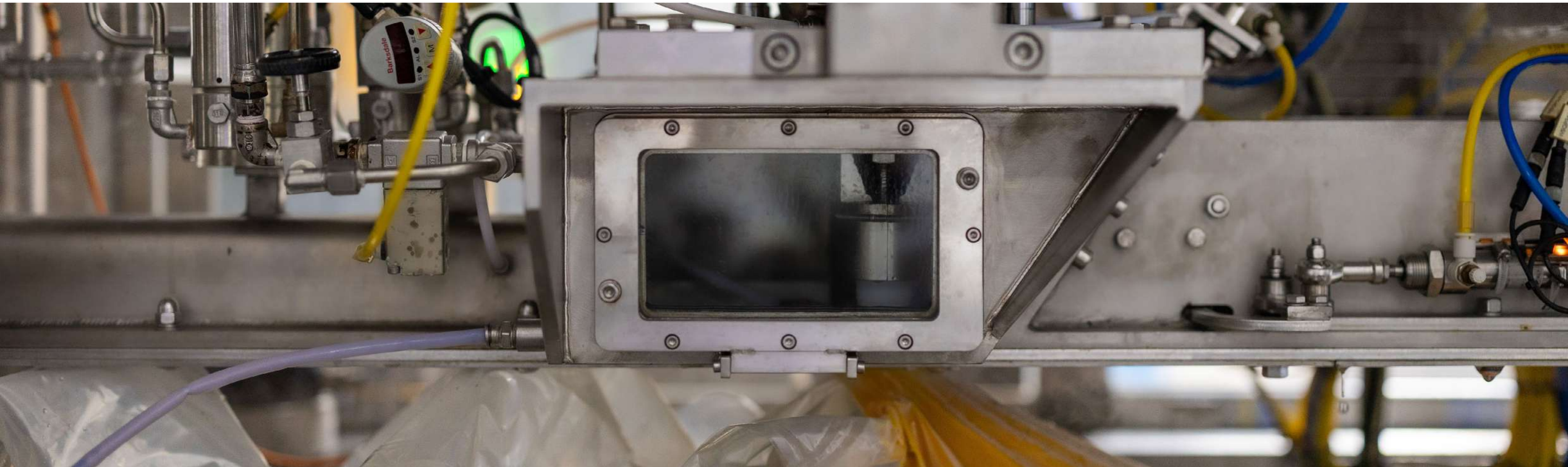


AL-MARWA EMISSIONS PER SCOPE AND ACTIVITY, 2024 ($mtCO_2e$)



MANUFACTURING EMISSIONS AND CARBON INTENSITY TRENDS OVER THE YEARS





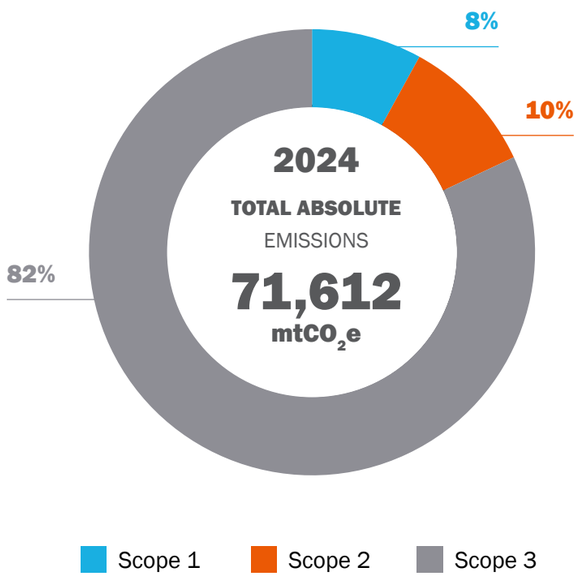
AL-MASREYA

In 2024, Al-Masreya achieved an annual production volume of **314,233 tons**, reflecting a **2.1% increase** over the previous year. The company reported total greenhouse gas emissions of **71,612 mtCO$_2$e**, distributed across scopes as follows: **8%** as Scope 1, **10%** as Scope 2, and **82%** as Scope 3.

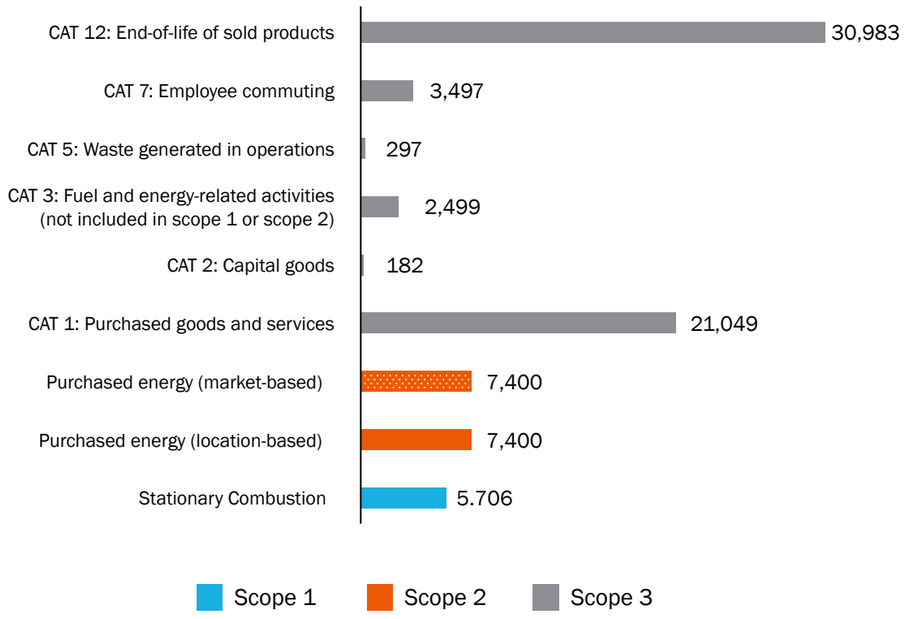
Emissions trends revealed distinct patterns across scopes. Scope 1 decreased by **5.3%** from the BY and **5.9%** from 2023. Scope 2 showed a different pattern, declining **10.3%** from the BY while experiencing a marginal **1.2%** increase from the previous year. While both Scope 1 and 2 remained relatively stable with minor fluctuations, Scope 3 demonstrated the most significant change.Scope 3 emissions rose by **257%** from the BY and **395%** from 2023, primarily driven by the inaugural inclusion of Category 12 emissions. This new category, which includes emissions from end-of-life packaging of tetrapak products including *Happy Kitchen Juhayna milk, Bekero Milk, and Mix* , accounts for **43%** of Al-Masreya's total emissions and **53%** of its Scope 3 footprint.

Carbon intensity at Al-Masreya continued to decline in 2024, reaching **41.7 kgCO$_2$e per ton of product**. This reflects a **13.5%** reduction versus the BY and **4.1%** decrease compared to the previous year.

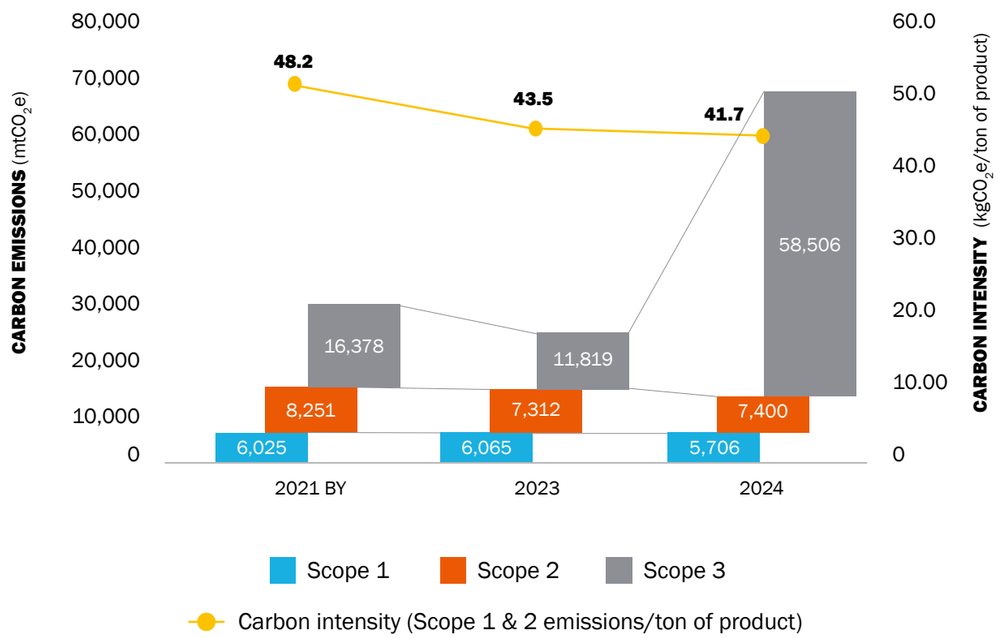
AL-MASREYA FACTORY TOTAL EMISSIONS (mtCO$_2$e)



AL-MASREYA EMISSIONS PER SCOPE AND ACTIVITY, 2024 ($mtCO_2e$)



AL-MASREYA FACTORY EMISSIONS AND CARBON INTENSITY TRENDS OVER THE YEARS



ASSIUT

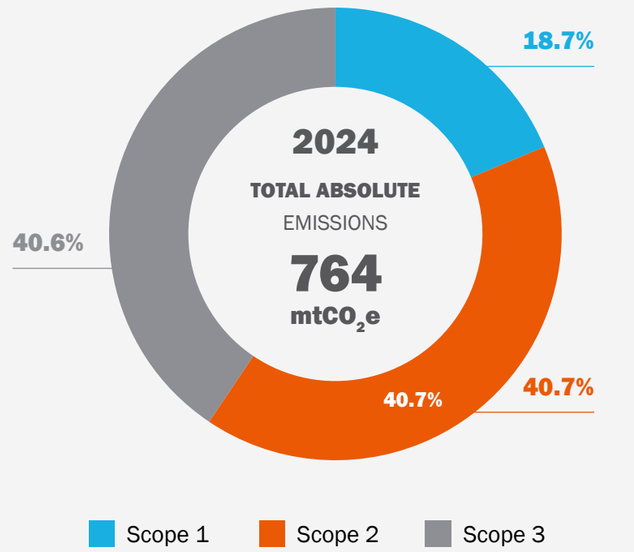
This year marks our second consecutive reporting cycle including the seasonally operational Assiut facility, which scales production during Ramadan to meet heightened demand for yogurt. In 2024, the **30,000 m²** factory achieved an annual production volume of **2,713 tons**, representing a notable **151% increase** from the previous year. During the reporting period, the facility recorded total emissions of **764 mtCO_2e**. Emissions were distributed across scopes as follows: **40.7% Scope 2**, **18.7% Scope 1**, and **40.6% Scope 3**.

The sole source of Scope 1 emissions was stationary combustion. Within Scope 3, Category 1 dominated, accounting for **62%** of Scope 3 emissions. Notably, purchased energy (Scope 2) constituted the largest overall emissions source at **41%** of the facility's total footprint.

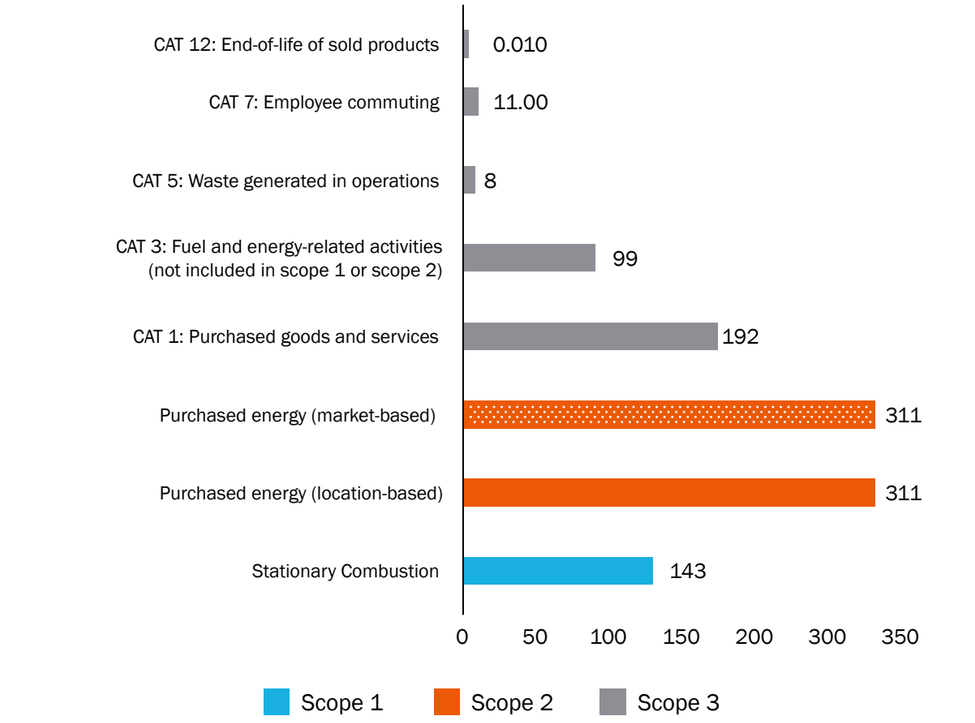
Despite a **58% increase in absolute emissions** due to expanded operations, carbon intensity **dropped by nearly 55%,** driven by scaled production volumes.

The newly quantified Category 12 emissions totaled just **0.01 mtCO_2e**, originating from post-consumer disposal of packaging for the factory's sole product, **456,892 units** of yogurt.

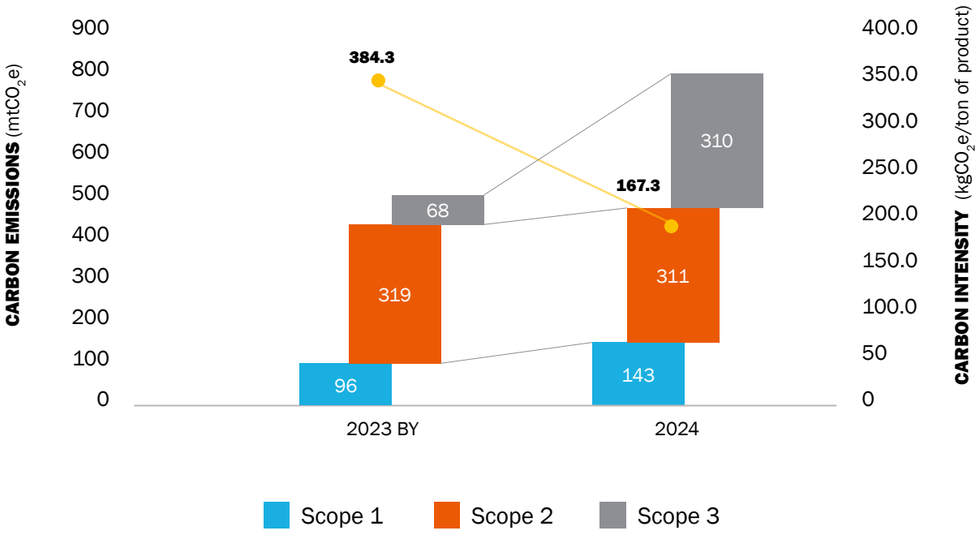
ASSIUT FACTORY TOTAL EMISSIONS ($mtCO_2e$)



ASSIUT FACTORY TOTAL EMISSIONS PER SCOPE AND ACTIVITY ($mtCO_2e$)



ASSIUT FACTORY EMISSIONS AND CARBON INTENSITY



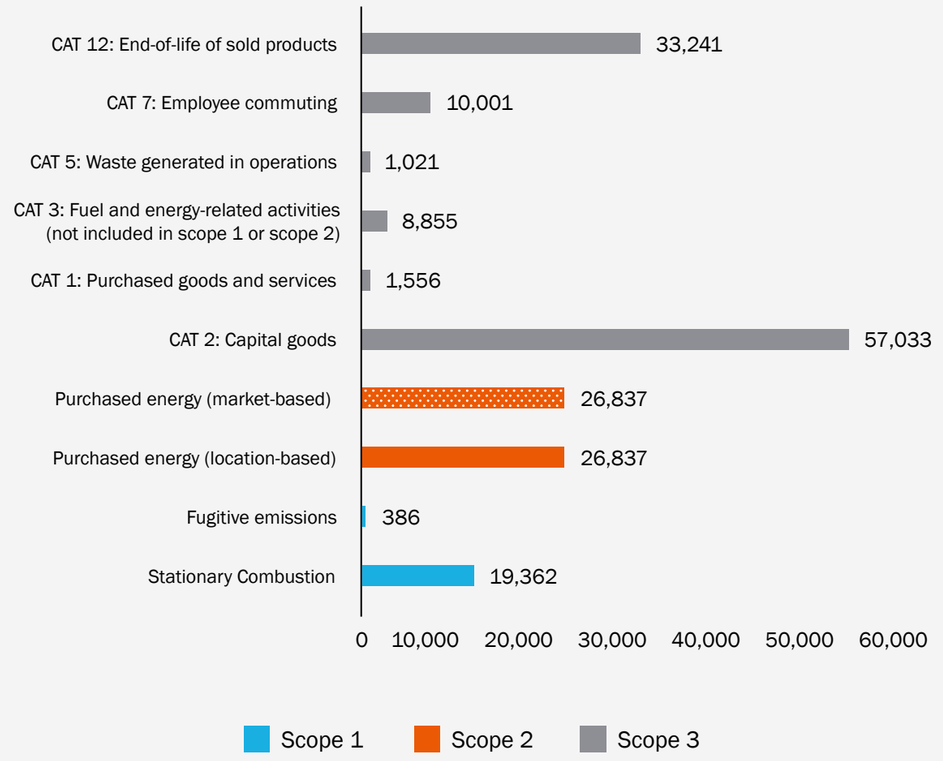
MANUFACTURING EMISSIONS SUMMARY

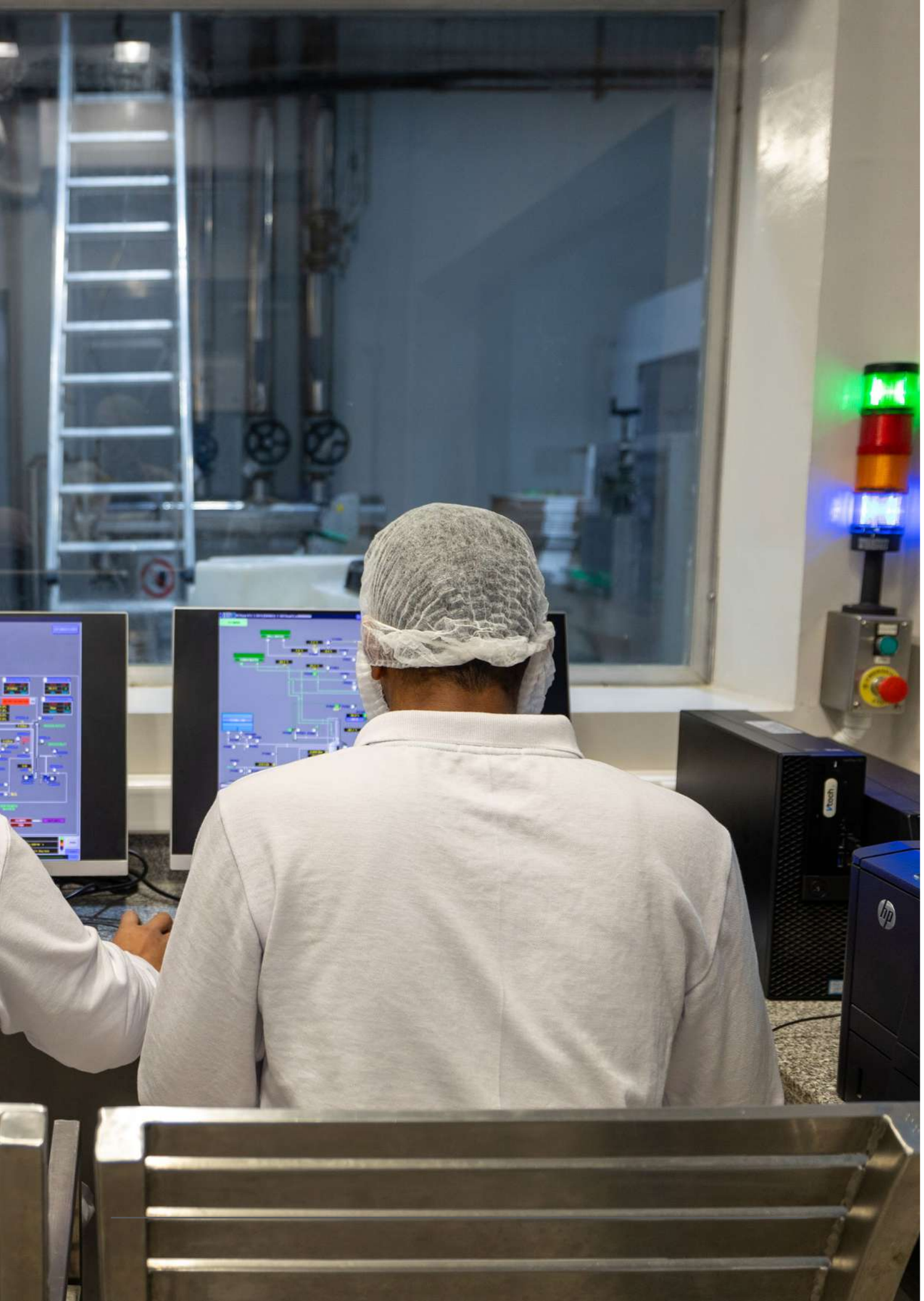
	2021 (BY)	2023	2024
Scope 1. Direct Emissions	**18,973**	**19,370**	**19,747**
Stationary Combustion (Diesel generators)	17,515	18,775	19,362
Stationary Combustion (Diesel machinery)	1,458	596	386
Scope 2. Indirect Emissions	**25,807**	**25,903**	**26,837**
Purchased energy (location-based)	25,807	25,903	26,837
Purchased energy (market-based)	25,807	25,903	26,837
Total Scope 1 and 3 Emissions	2021 44,780 $mtCO_2e$	2023 45,273 $mtCO_2e$	2024 46,585 $mtCO_2e$
Scope 3. Indirect Emissions	**49,658**	**51,396**	**111,707**
CAT 1 : Purchased goods and services – Farming goods	39,697	36,445	57,033
CAT 1 : Purchased goods and services – Local farms	–	1,134	1,556
CAT 2 : Capital Goods	2,961	4,120	8,855
CAT 3 : Fuel- and energy related activities (not included in scope 1 or scope 2)	820	955	1,021
CAT 4: Upstream transportation and distribution & WTT	6,181	8,742	10,001
CAT 5 : Waste generated in operations	–	–	33,241
Total Scope 1, 2 and 3 Emissions	2021 94,439 $mtCO_2e$	2023 96,669 $mtCO_2e$	2024 158,290 $mtCO_2e$
Reduced Emissions	**13**	**15**	**34**

Our expanded Scope 3 coverage now captures previously unaccounted emissions sources, with Category 12 (added in 2024) representing **30%** of total Scope 3 emissions following Category 2's inclusion in 2023. This year, Al-Dawleya tripled on-site solar generation to **73,320 kWh** in 2024 (from **23,184 kWh** in 2023), significantly boosting renewable capacity.

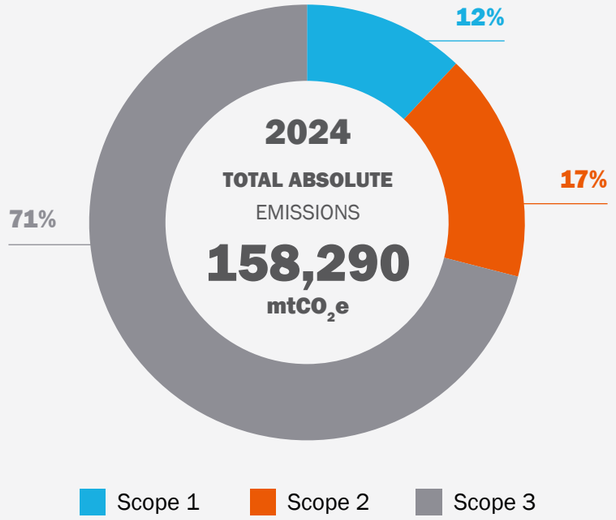
Al-Masreya leads production output with **71,612 $mtCO_2e$** absolute emissions but demonstrates optimal efficiency at **41.7 $kgCO_2e$/ton**, Al-Dawleya follows closely with strong performance **(39,041 $mtCO_2e$ at 44.8 $kgCO_2e$/ton)**. However, Al-Marwa despite lower absolute emissions (**22,432 $mtCO_2e$**), its disastrous carbon intensity (**304.5 $kgCO_2e$/ton**) makes it 7.3 times less efficient than Al-Masreya. Similarly, Egyfoods combines high emissions (**24,441 $mtCO_2e$**) with poor efficiency **(120.9 $kgCO_2e$/ton)**, while Assiut, though smallest in scale (**764 $mtCO_2e$**), operates at concerning intensity **(167.3 $kgCO_2e$/ton).**

MANFACTURING ACTIVITIES EMISSIONS SUMMARY PER SCOPE AND ACTIVITY, 2024 ($mtCO_2e$)

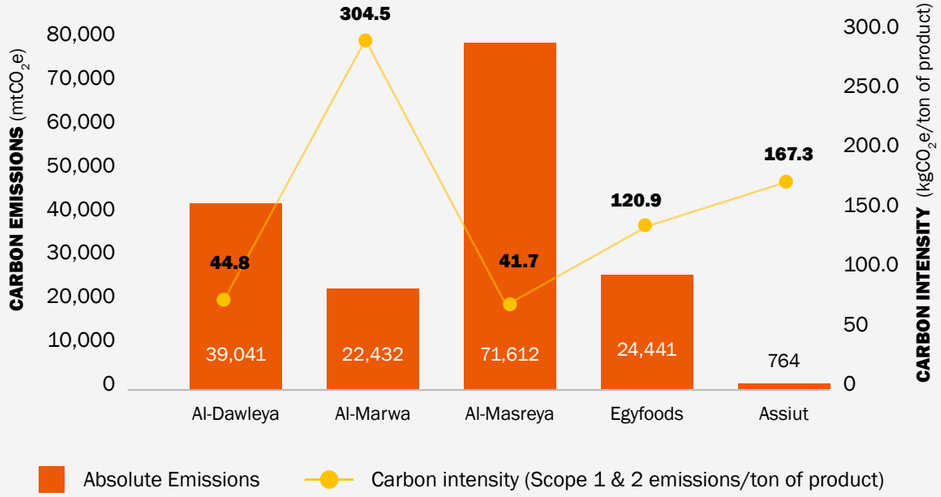




MANUFACTURING TOTAL EMISSIONS ($mtCO_2e$)



MANUFACTURING ABSOLUTE EMISSIONS AND CARBON INTENSITIES, 2024



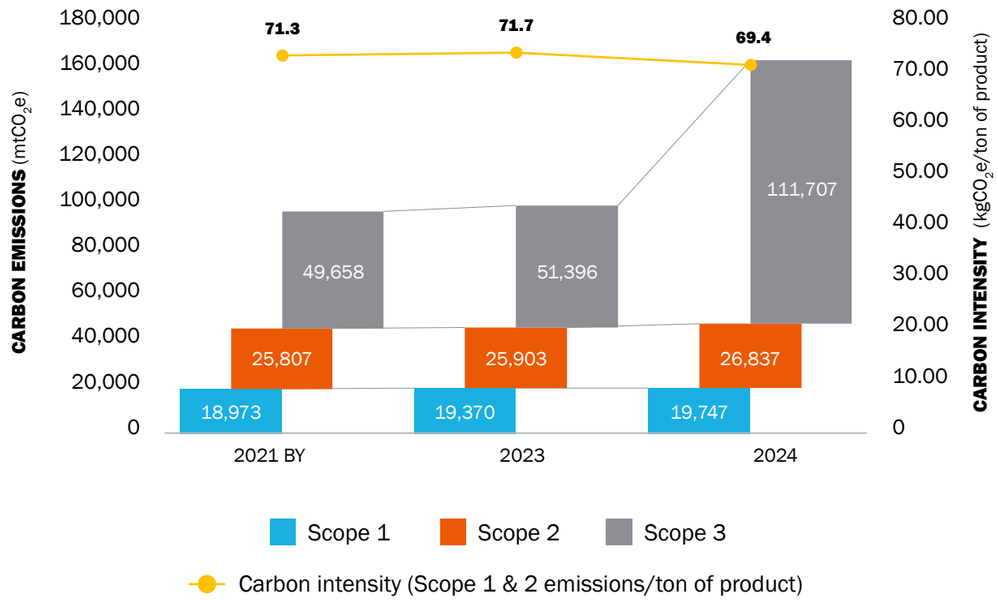
MANUFACTURING EMISSIONS SUMMARY YOY

Total emissions grew **67.6%** since 2021 (BY), rising from **94,438** to **158,291 mtCO_2e**. This was overwhelmingly driven by Scope 3 emissions, which more than doubled (**124.9%**, from **49,658 to 111,707 tCO_2e**) and now represent **70.5%** of the 2024 footprint (vs. **52.6%** in BY).

Scope 1 rose modestly (**4.1%** from BY), while Scope 2 increased **4.0%** from BY but shows recent acceleration (**3.6%** YoY to 2024. Combined Scopes 1 and 2 now contribute just **29.5**% of total emissions (down from **47.4%** in BY).

Despite rising emissions, production efficiency improved, as 2024 intensity **(69.4 kgCO_2e/ton)** dropped **2.7%** from BY **(71.3)**. This demonstrates output grew faster than emissions – likely through operational optimizations.

MANUFACTURING EMISSIONS AND CARBON INTENSITY TRENDS OVER THE YEARS



How are our factories pioneering low-carbon operations ?

Al-Marwa

Initiative	Strategic Alignment	Description	Quantified Impact
LED Lighting Upgrade	Energy efficiency in building	500 halogen lamps (400W each) replaced with 140W LED lamps, enabling lighting to operate at roughly 50% of the normal electrical load.	260W saved per lamp; total savings of ~130 kW when all lights are in use.
Water Recycling Pump Installation	Waste reduction and material circularity	Implemented a pump to capture, filter, and reuse water from storage tank cleaning operations, minimizing freshwater withdrawal and reducing wastewater generation.	500 m^3 of water reused monthly, saving ~10,500 EGP per month (21 EGP/m^3).
Power Factor Panel Overhaul	Energy efficiency in production processes	Refurbished and recalibrated power factor panels to reduce apparent power demand and current draw, minimizing electrical leakage and transmission losses.	Power factor improved by 15%, lowering electricity consumption.
Ammonia Compressor Overhaul	Energy efficiency in production processes	Conducted a full mechanical overhaul of the ammonia compressor, including replacing bearings and seals, recharging ammonia gas, and optimizing operating schedules to reduce motor run-time.	Reduced running hours for ammonia motor, cutting electricity consumption (kWh savings under tracking).
Gas Consumption Monitoring	Energy efficiency in production processes	Installed a precision gas meter to monitor and analyze boiler consumption, enabling proactive efficiency checks, preventing operation without production, and identifying opportunities for gas savings.	Improved control over gas usage; reduced losses (exact savings to be monitored).
Automatic Boiler Softener Installation	Energy efficiency in production processes	Introduced a fully automated softening system to prevent mineral scaling in boiler pipes, ensuring optimal heat transfer and reducing the energy required for water heating.	Lower gas consumption in burners due to improved thermal efficiency.
Pipe Insulation Project	Energy efficiency in production processes	Applied high-performance insulation to process piping to minimize thermal losses, improve temperature retention, and reduce the operational load on boilers and chillers.	Lower gas and electricity usage from reduced equipment running hours (quantification under monitoring).

EgyFoods

Initiative	Strategic Alignment	Description	Quantified Impact
Pasteurizer Speed Optimization	Energy efficiency in production processes.	Adjusted pasteurizer operational settings to lower motor speed during circulation cycles, reducing energy demand while maintaining product quality and process integrity.	2% reduction in electricity usage for total pasteurization consumption.
Compressor Load Management	Energy efficiency in production processes.	Modified compressor control parameters to minimize motor speed and current draw when the unit is unloaded, reducing unnecessary electricity consumption.	3% reduction in electricity usage for total air compressor consumption.
Ice Water Recovery System	Energy efficiency in production processes.	Implemented a closed-loop return system to recover and reuse ice water, eliminating the need for drainage and lowering both water and energy usage.	0.5% reduction in electricity usage for total ammonia compressor consumption.
Air Source Optimization	Energy efficiency in production processes.	Introduced a control mechanism to select between closed- and open-loop air intake depending on operating conditions, optimizing airflow for minimal energy demand.	2% reduction in electricity usage for total HVAC consumption
LED Lighting and Motion Sensor Upgrade	Energy efficiency in buildings.	Replaced existing lighting with LED units and installed occupancy sensors to ensure lighting and air conditioning operate only when spaces are in use.	1% reduction in electricity usage for total lighting consumption.

Al-Masreya

Initiative	Strategic Alignment	Description	Quantified Impact
Duplex Water Softener Upgrade	Energy efficiency in production processes	Upgraded to a high-capacity duplex water softener with automatic regeneration cycles to ensure uninterrupted softening, prevent boiler scaling, and maintain optimal heat transfer efficiency.	Continuous operation prevents mineral buildup, improving boiler performance and reducing gas consumption (quantification under monitoring).
Boiler Thermal Insulation Enhancement	Energy efficiency in production processes	Applied industry-standard insulation materials to reduce excessive heat loss, improve thermal efficiency, and lower fuel requirements during steam generation.	Reduction in heat loss from boilers; measurable decrease in gas consumption (exact % under review).
Power Factor Improvement – Phase 2	Energy efficiency in production processes	Implemented the second phase of power factor optimization, enhancing electrical efficiency and reducing current draw across multiple low-voltage panels.	1% reduction in electricity consumption compared to 2023 baseline.
Gas Consumption Reduction Program	Energy efficiency in production processes	Installed precision steam flow meters for each boiler to monitor usage, replaced insulation on boilers and steam pipes, and upgraded steam traps to reduce thermal losses and improve operational efficiency.	1.8% reduction in gas consumption compared to 2023 baseline.
Used Oil Recovery Partnership	Waste reduction and material circularity	Established a take-back program for used homogenizer lubricants, enabling recovery, refining, and reuse to minimize environmental impact and reduce reliance on virgin oil.	1.8% reduction in gas consumption compared to 2023 baseline.

Al-Dawleya

Initiative	Strategic Alignment	Description	Quantified Impact
Used Oil Recovery Partnership	Waste reduction and material circularity	Established a take-back program for used homogenizer lubricants, enabling recovery, refining, and reuse to minimize environmental impact and reduce reliance on virgin oil.	Reduction in gas consumption compared to 2023 baseline (exact % under review).
Solar Carport Expansion	Low-carbon energy generation	Increased installed solar capacity to offset grid electricity consumption, further reducing Scope 2 emissions.	Tripling on-site solar generation to 73,320 kWh by expanding PV panels on car shade structures, avoiding new land use, cutting grid reliance, and doubling last year's emissions reduction to 34 $mtCO_2e$.
Boiler #2 Insulation Upgrade	Energy efficiency in production processes	Replaced degraded insulation to prevent radiant heat loss, improving boiler efficiency and lowering gas consumption.	1% reduction in natural gas consumption; ~76,000 EGP in annual savings.
High-Efficiency Steam Trap Replacement	Energy efficiency in production processes	Upgraded steam traps to eliminate live steam leaks, recover condensate, and return it to the feedwater system, reducing fuel demand.	0.5% reduction in natural gas consumption; ~110,000 EGP in annual savings.
Re-use cooling water from sugar pumps	Water Sustainability	Implement a system to capture and recycle cooling water from sugar pumps, reducing fresh water demand and minimizing wastewater discharge.	450 m^3/month water saved.

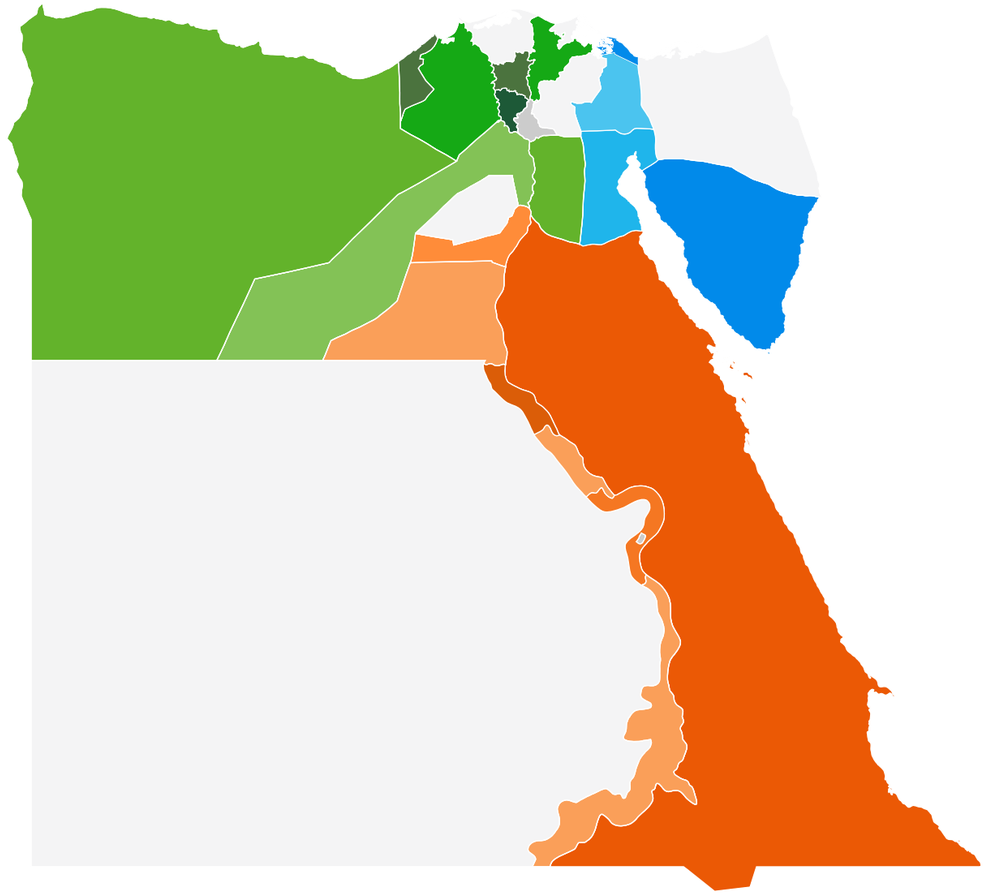
DISTRIBUTION CENTERS

As the backbone of Juhayna's vertical integration, TIBA operates one of Egypt's most extensive F&B logistics networks. Its fleet of ~1,000 multi-temperature vehicles and 29 distribution centers enable seamless nationwide coverage, serving 136,000+ retail outlets with precision.

Warehouses

671,040 tons of products

50 Juhayna-owned heavy-duty trucks deliver finished products to the Tiba which then distributes them to a network of 29 strategically positioned distribution centers.



Exports

Juhayna exports 9,540 tons of products to 40 countries via container shipping.

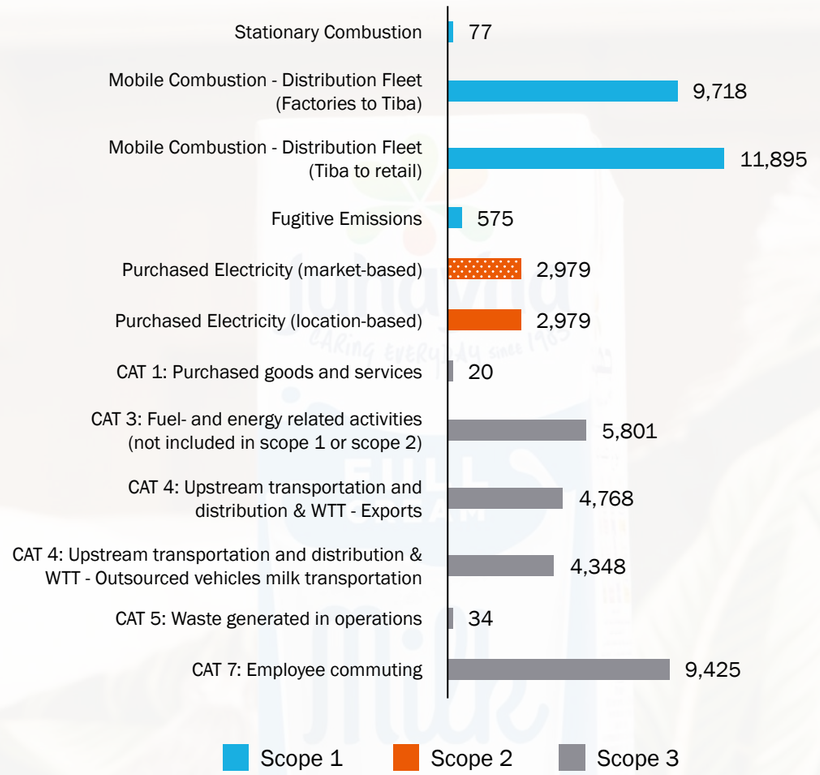
Retail Centers

Finished products are distributed to 136,000 retail outlets nationwide by Juhayna's fleet of 988 light-duty trucks.

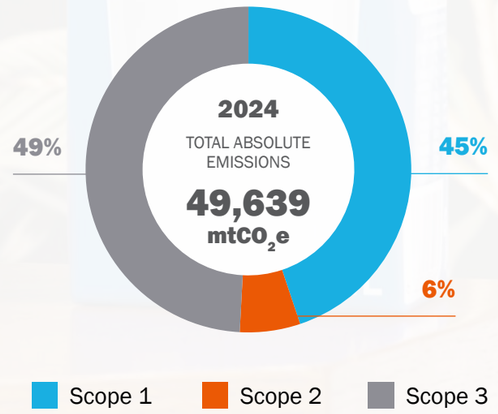
DISTRIBUTION EMISSIONS

	2021 (BY)	2023	2024
Scope 1. Direct Emissions	**16,290**	**21,021**	**22,265**
Stationary Combustion	88	87	77
Mobile Combustion – Distribution Fleet (Factories to Tiba)	4,027	9,357	9,718
Mobile Combustion – Distribution Fleet (Tiba to Retail)	11,667	11,534	11,895
Fugitive Emissions	465	43	575
Scope 2. Indirect Emissions	**2,785**	**2,882**	**2,979**
Purchased energy (location-based)	2,785	2,882	2,979
Purchased energy (market-based)	2,785	2,882	2,979
Total Scope 1 & 2 Emissions	2021 **19,075** $mtCO_2e$	2023 **23,092** $mtCO_2e$	2024 **25,244** $mtCO_2e$
Scope 3. Indirect Emissions	**12,248**	**18,624**	**24,395**
CAT 1: Purchased Goods and Services	73	23	20
CAT 3: Fuel and energy-related activities (not included in scope 1 or scope 2)	3,673	5,119	5,801
CAT 4: Upstream transportation and distribution & WTT – Exports	–	337	4,768
CAT 4: Upstream transportation and distribution & WTT – Outsourced vehicles milk transportation	–	4,278	4,348
CAT 5: Waste generated in operations	53	44	34
CAT 7: Employee commuting	8,449	8,824	9,425
Total Scope 1, 2 and 3 Emissions	2021 **31,323** $mtCO_2e$	2023 **42,526** $mtCO_2e$	2024 **49,639** $mtCO_2e$

DISTRIBUTION CENTERS ACTIVITIES EMISSIONS SUMMARY, 2024 ($mtCO_2e$)



DISTRIBUTION CENTERS TOTAL EMISSIONS, 2024 ($mtCO_2e$)



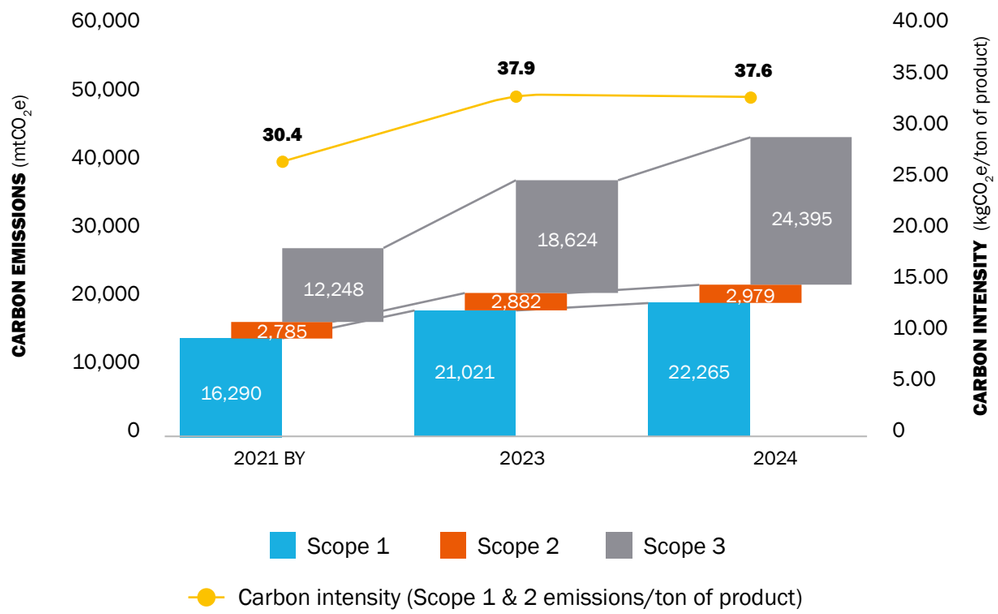
DISTRIBUTION EMISSIONS SUMMARY YOY

Distribution centers account for just **4.3%** of Juhayna's total emissions. Despite this small share, Scope 1 emissions rose sharply, up **36.7%** from the base year and a further **5.9%** from the previous year.

Scope 2 emissions from purchased electricity remained relatively stable, increasing by **7%** compared to the base year and by a more modest **3.4%** year-on-year in 2024. Scope 3 emissions showed the most significant change, nearly doubling **(+99%)** from the base year. This sharp rise is largely attributable to the absence of upstream emissions in the base year due to data limitations. When comparing only Category 4 (upstream transportation and distribution) to the base year, emissions still rose by 98%, driven primarily by increased exports.

Carbon intensity climbed from **30.4 kgCO_2e/tons** in 2021 to a peak of **37.9** in 2023, before a slight decline to 37.6 in 2024. This small drop occurred despite production increasing by **6.8%** between 2023 and 2024 **(from 631,145 tons to 671,040 tons)**. The moderation in intensity indicates that efficiency gains in 2024 helped offset the emissions growth linked to higher output.

DISTRIBUTION EMISSIONS AND CARBON INTENSITY TRENDS, YOY



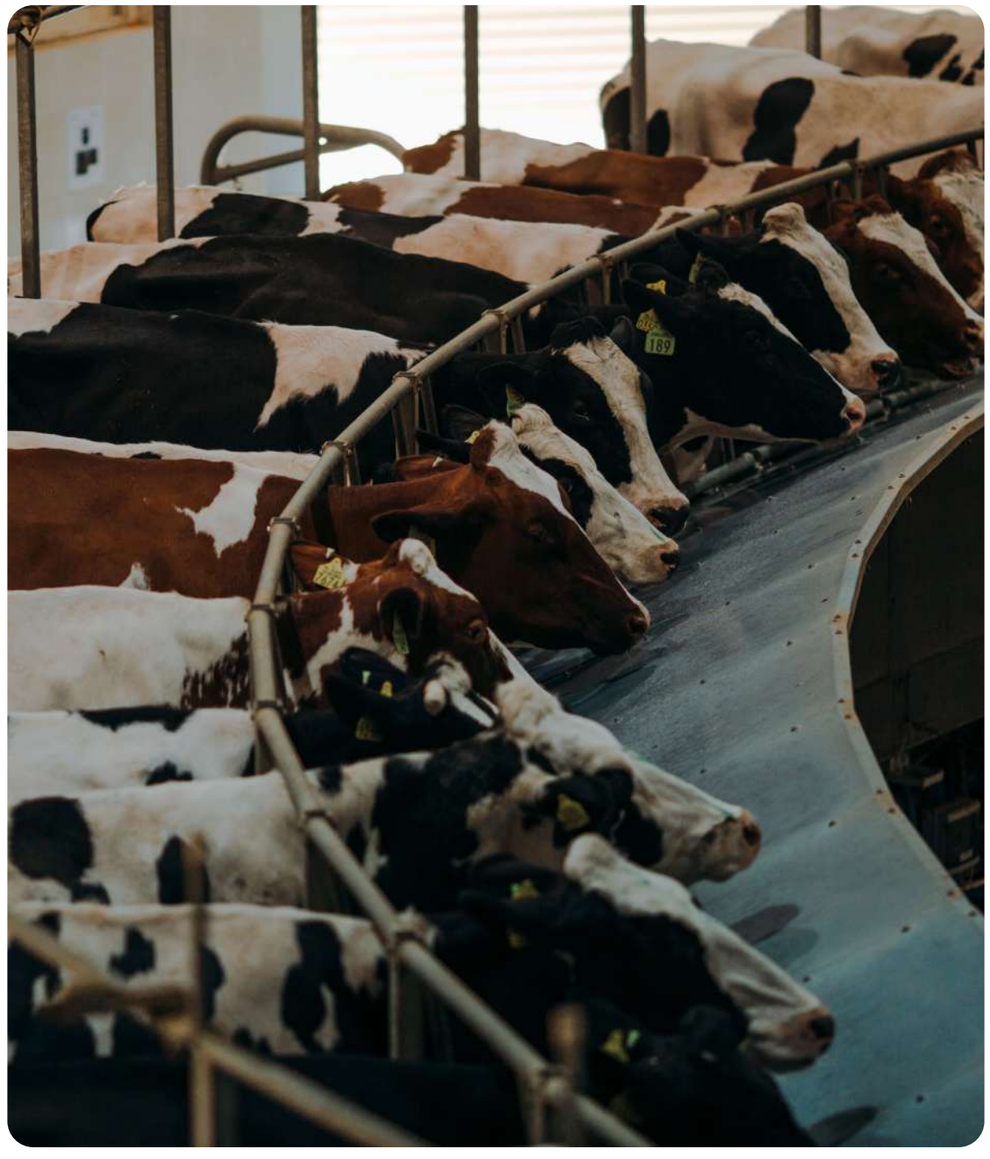
HEADQUARTERS

	2021 (BY)	2023	2024
Scope 1. Direct Emissions	**234**	**209**	**194**
Mobile Combustion	234	209	194
Scope 2. Direct Emissions	**101**	**116**	**112**
Purchased energy (location-based)	101	116	112
Purchased energy (market-based)	101	116	112
Total Scope 1 & 2 Emissions	2021 335 $mtCO_2e$	2023 325 $mtCO_2e$	2024 305 $mtCO_2e$
Scope 3. Indirect Emissions	**482**	**577**	**619**
CAT 1 : Purchased goods and services	4	5	5
CAT 3 : Fuel- and energy-related activities (not included in scope 1 and scope 2)	59	61	76
CAT 5 : Waste generated in operations	7	8	8
CAT 6 :Business Travel	–	25	48
CAT 7 : Employee commuting + WTT	412	479	483
Total Scope 1, 2 and 3 Emissions	2021 817 $mtCO_2e$	2023 902 $mtCO_2e$	2024 925 $mtCO_2e$

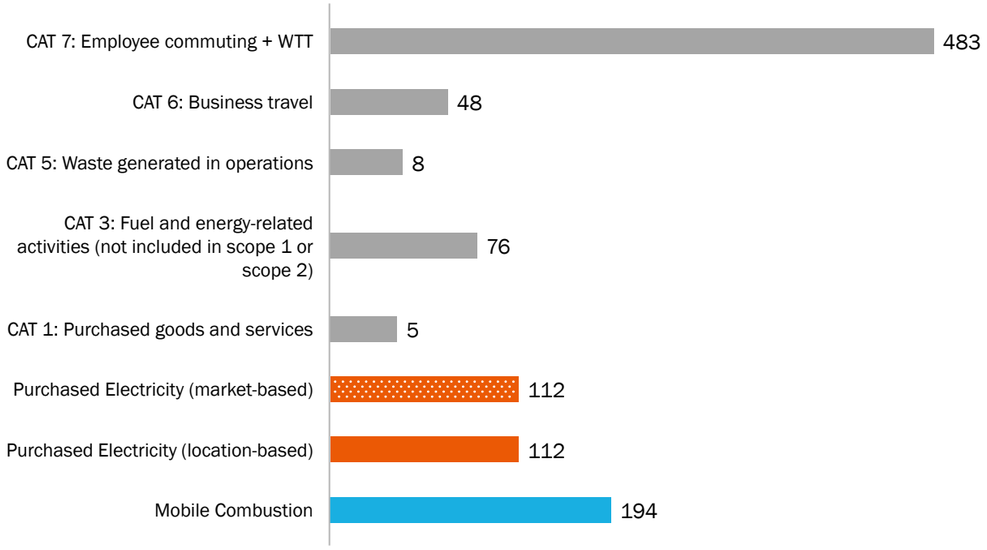
Headquarters operations contribute only **0.08%** of Juhayna's total emissions, reflecting lower energy demands compared to the energy-intensive factories and dairy farms where production processes dominate emissions.

Despite this small overall share, headquarters emissions rose **13%** from the BY and **2.4%** year-over-year, primarily driven by employee commuting (Category 7), which accounts for **53%** of the total, and mobile combustion **(23%)**.

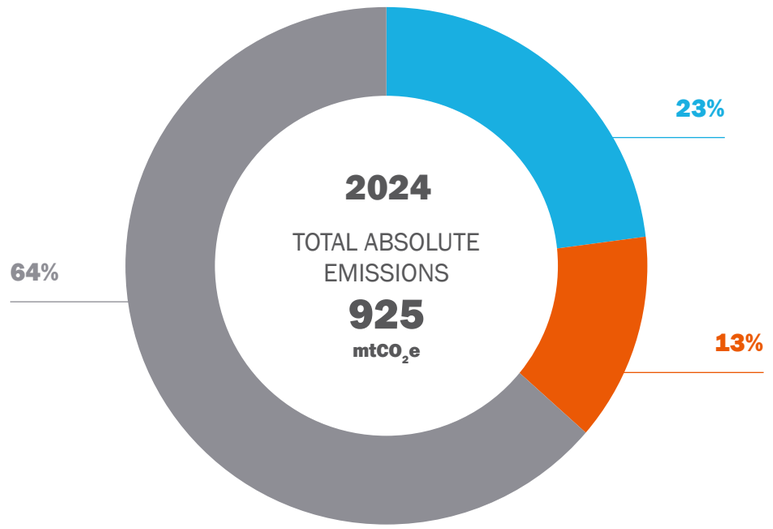
Divergent trends emerge across emission scopes, while Scope 1 **(194 $mtCO_2e$)** sustained reductions, declining **17.1%** from BY and **7.2%** year-over-year, Scope 2 showed mixed results, increasing **10.9%** from BY but decreasing **3.4**% from the prior year, and Scope 3 remains the only growing category, with persistent increases of **28.4%** from BY and **7.3%** year-over-year.



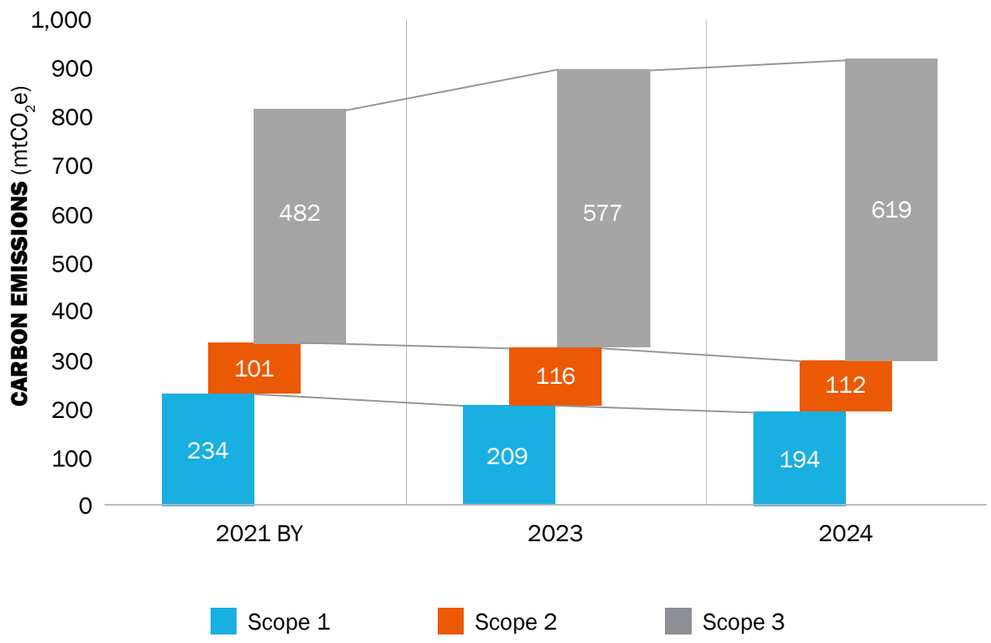
HEADQUARTERS EMISSIONS SUMMARY, 2024 ($mtCO_2e$)



HEADQUARTERS TOTAL EMISSIONS ($mtCO_2e$)



HEADQUARTERS EMISSIONS OVER THE YEARS



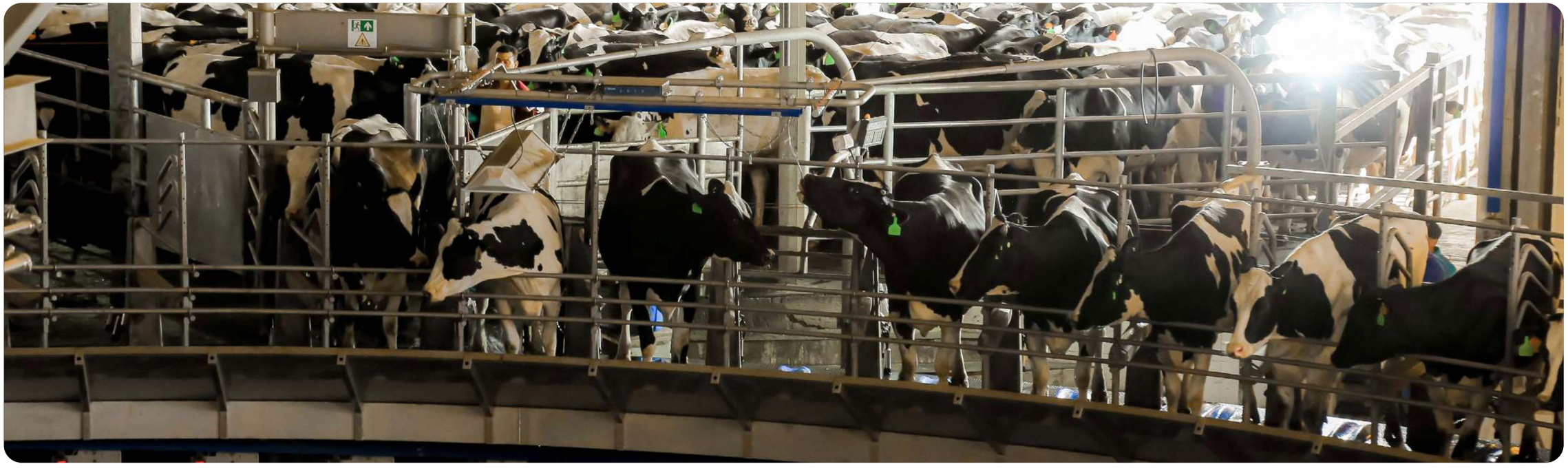
CFP RESULTS SUMMARY

SCOPE 1 DIRECT EMISSIONS ($mtCO_2e$)

		2021 BY	2023	2024	Share (%)	Scope (%)
Stationary combustion	On-site diesel fuel burning	14,375	10,687	5,397	0.46%	8%
	On-site natural gas consumption	17,603	18,765	19,296	1.66%	
Mobile combustion	Owned vehicles diesel fuel burning	15,990[1]	21,095[1]	21,736	1.87%	
	Owned vehicles petrol fuel burning	–	146	132	0.01%	
Fugitive emissions	Refrigerants leakage	1,923	639	960	0.08%	
Agricultural activities	Fertilizers	1,137	966	1,113	0.10%	
	Livestock and manure management	41,030	47,188	48,168	4.15%	
Total Scope 1 ($mtCO_2e$)		**92,058[1]**	**99,486[1]**	**96,802**		

SCOPE 2 INDIRECT EMISSIONS ($mtCO_2e$)

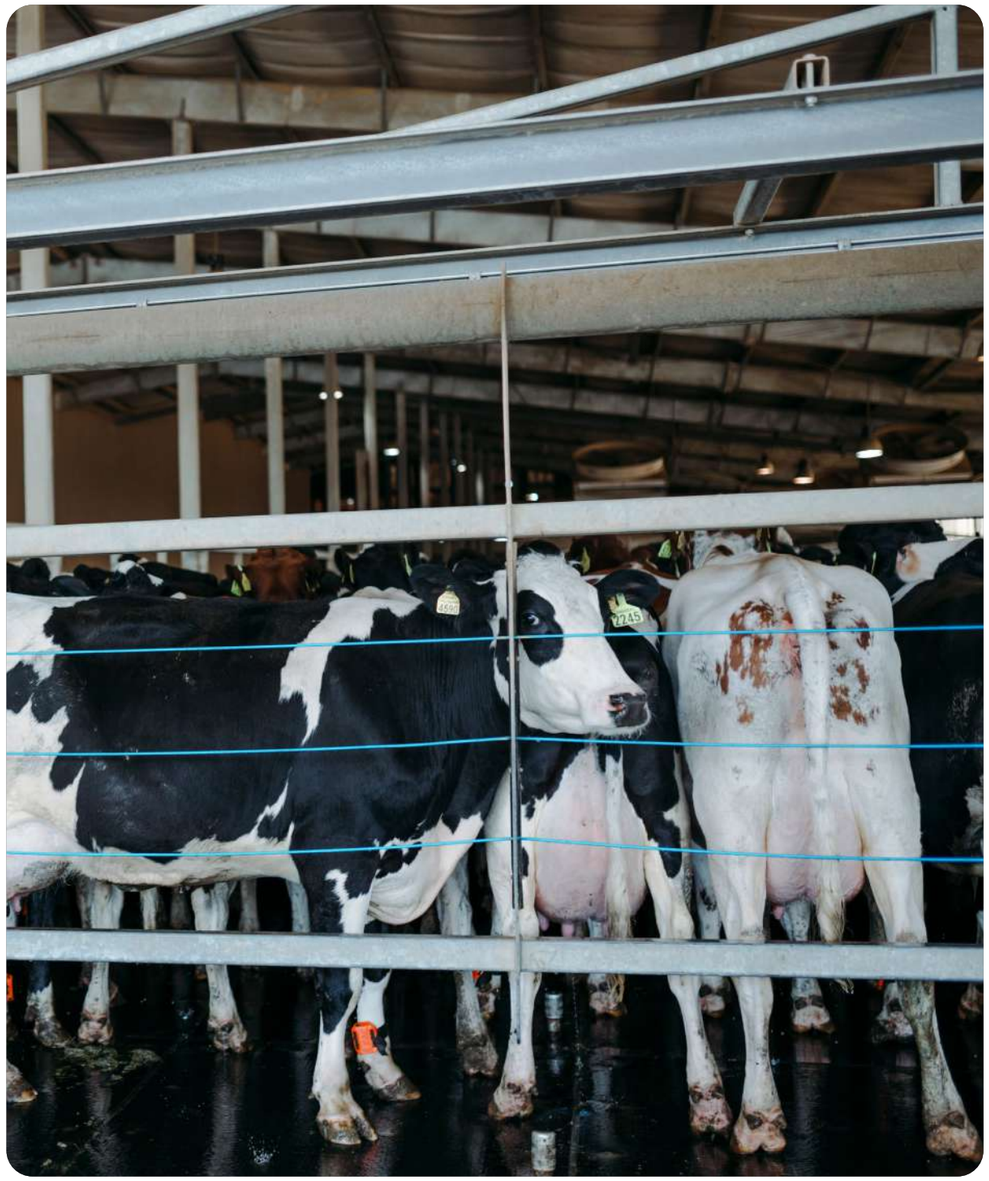
		2021 BY	2023	2024	Share (%)	Scope (%)
Purchased energy	Purchased electricity (Location-based)	28,693	28,900	35,687	3.07%	3%
	Purchased electricity (Market-based)	–	–	31,340	2.70%	
Total Scope 2 ($mtCO_2e$)		**28,693**	**28,900**	**31,340**		
Total Scope 1 & 2 emissions ($mtCO_2e$)		**120,751**	**128,386[2]**	**128,142**		
Scope 1 & 2 carbon intensity ($mtCO_{2e}$/Mil EGP Revenue)		**13.7[1]**	**8.0[1]**	**5.3**		
Scope 1 & 2 carbon intensity ($mtCO_2e$/Mil EGP EBIT)		**98.7[1]**	**57.8[1]**	**25.4**		
Scope 1 & 2 carbon intensity ($kgCO_2e$/ton of product)		**192.2[1]**	**203.4[1]**	**191.0**		

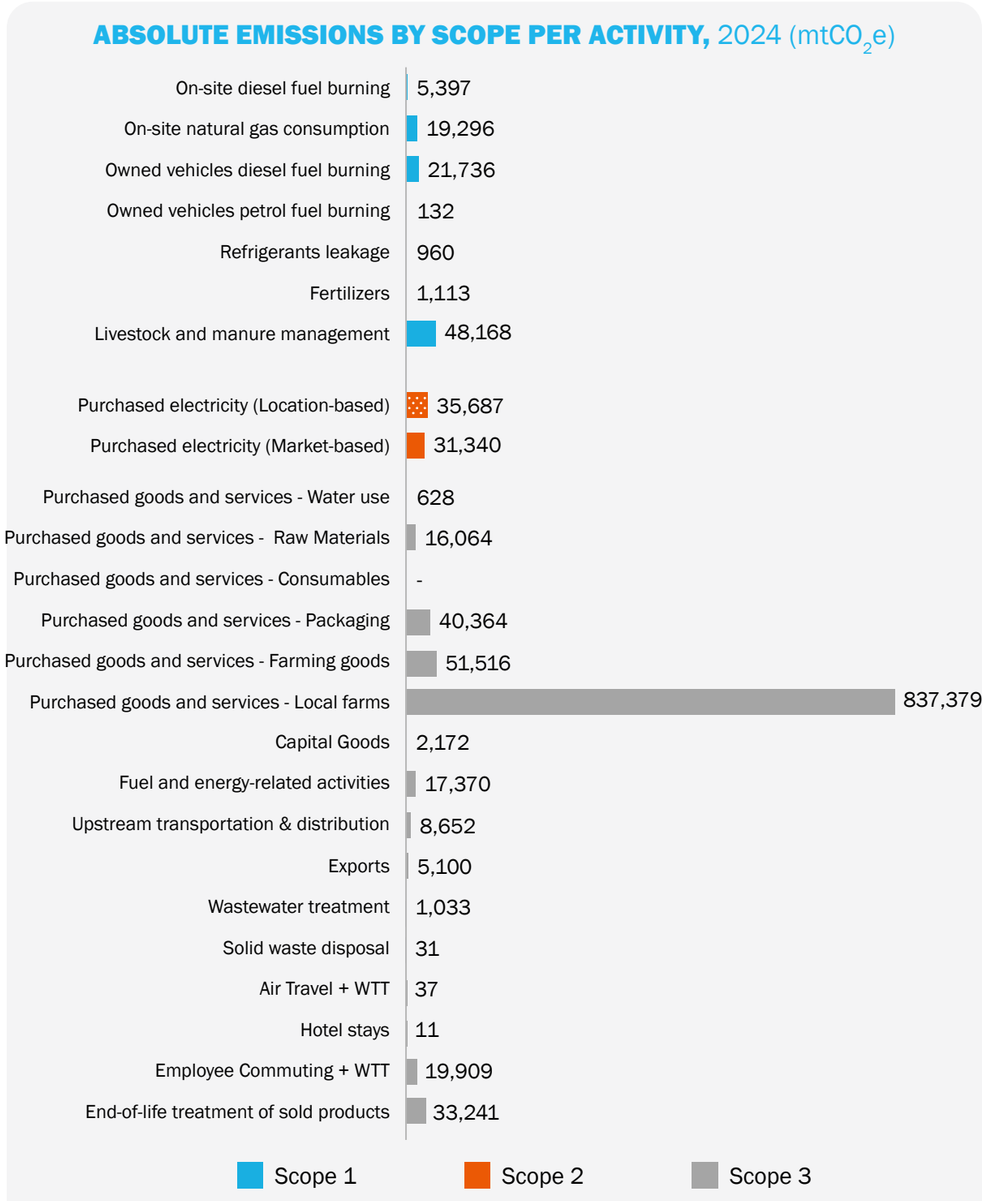


[1] Emissions from Al-Esseila Farm's milk transportation were incorrectly reported under both Scope 1 and Scope 3 (Category 4). These should only appear under Scope 3, Category 4: Upstream Transportation & Distribution.
[2] Planted areas were incorrectly reported in hectares instead of feddans. Carbon sequestration was recalculated using converted units.

SCOPE 3 INDIRECT EMISSIONS ($mtCO_2e$)			2021	2023	2024	Share (%)	Scope (%)
Category 1	Purchased goods and services	Water Use	510	601	628	0.05%	89%
		Raw materials	_	10,473	16,064	1.38%	
		Consumables	_	819	_	_	
		Packaging	39,272	24,584	40,364	3.47%	
		Farming goods	_	15,973	51,516	4.43%	
		Local Farms	835,786	762,165	837,379	72.09%	
Category 2	Capital goods		_	1,522	2,172	0.19%	
Category 3	Fuel and energy-related activities (not included in Scope 1 and 2)	Transmission & Distribution Losses	_	1,246	1,693	0.15%	
		Purchased energy WTT	–	–	6,133	0.53%	
		On-site diesel fuel burning	6,316	2,508	1,266	0.11%	
		On-site natural gas consumption	_	3,075	3,148	0.27%	
		Owned vehicles diesel fuel burning	3,721[1]	4,950[1]	5,097	0.44%	
		Owned vehicles petrol fuel burning	_	38	34	0.00%	
Category 4	Upstream transportation & distribution	Upstream	3,908[1]	6,327[1]	8,652	0.74%	
		Exports	_	337	5,100	0.44%	
Category 5	Waste generated in operations	Wastewater treatment	839	987	1,033	0.09%	
		Solid waste disposal	42	20	31	0.003%	
Category 6	Business travel	Air Travel + (WTT)	_	22	37	0.003%	
		Hotel Stays	_	3	11	0.001%	
Category 7	Employee commuting +WTT		15,041	18,045	19,909	1.71%	
Category 12	End-of-life treatment of sold products		_	_	33,241	2.86%	
Total Scope 3 ($mtCO_2e$)			**905,434[1]**	**853,696[1]**	**1,033,508**		
Total Scope 1,2 & 3 emissions ($mtCO_2e$)			**1,062,185[1]**	**982,082[1]**	**1,161,651**		

REDUCED EMISSIONS			
PV Panels	579	438	34
BIOGENIC CARBON			
Planted trees	520[2]	530[2]	511

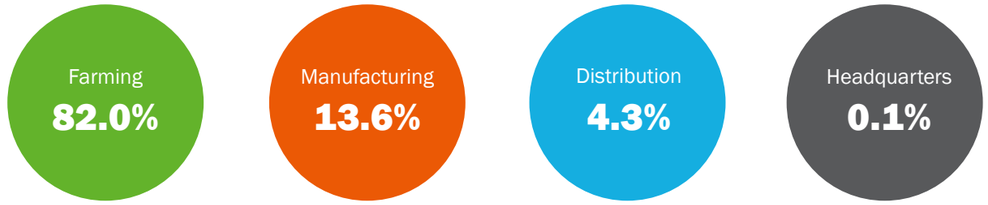




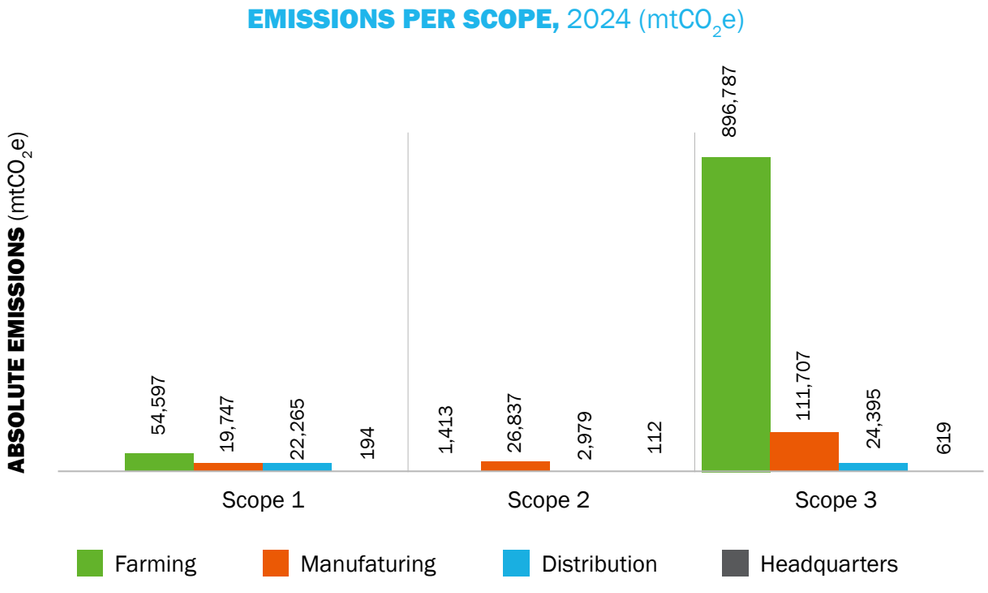
Scope 1 emissions, which account for **8%** of Juhayna's total footprint, increased by **5.2%** from our base year but decreased **2.7%** year-over-year. A significant milestone was achieved in 2024 with our strategic shift to purchasing renewable energy, allowing us to report our Scope 2 emissions using the market-based accounting method for the first time, capturing the specific impact of our renewable energy purchases. Consequently, this strategic transition is responsible for a **12.2%** reduction in our reported market-based Scope 2 emissions for the year, directly demonstrating the positive impact of our investment in clean energy.

Scope 3 increased **14.1%** from BY and accelerated to **21%** year-over-year growth. This rise stems primarily from expanded boundary inclusion of material activities (Categories 2 and 12). To enable accurate future tracking, 2024 has been established as the new Scope 3 base year. Local farms constitute the majority of Juhayna's Scope 3 emissions, accounting for **81%** of this category, and **70%** of Juhayna's total corporate emissions footprint.

By replacing on-site PV with purchased renewables, Al-Esseila Farm slashed **>400 $mtCO_2e$/year** in emissions reductions. Juhayna's current **34 $mtCO_2e$** reduction derives exclusively from Al-Dawleya's **73,320 kWh** solar generation.



Farming operations dominate Juhayna's carbon footprint, contributing **952,797 $mtCO_2e$** (**82.0%** of total emissions). This share is driven by massive Scope 3 emissions **(896,787 $mtCO_2e$)** from agricultural supply chains, alongside significant direct emissions (Scope 1: **54,597 $mtCO_2e$**). Manufacturing represents the second-largest emissions source at **158,291 $mtCO_2e$** (**13.6%** of total), characterized by high Scope 2 emissions **(26,837 $mtCO_2e$)** reflecting energy-intensive factory operations and grid dependency. Distribution accounts for **49,639 $mtCO_2e$ (4.3%)**, with notable Scope 1 emissions **(22,265 $mtCO_2e$)**. Headquarters remains negligible at **925 $mtCO_2e$ (0.08%)**, confirming administrative functions have minimal climate impact.



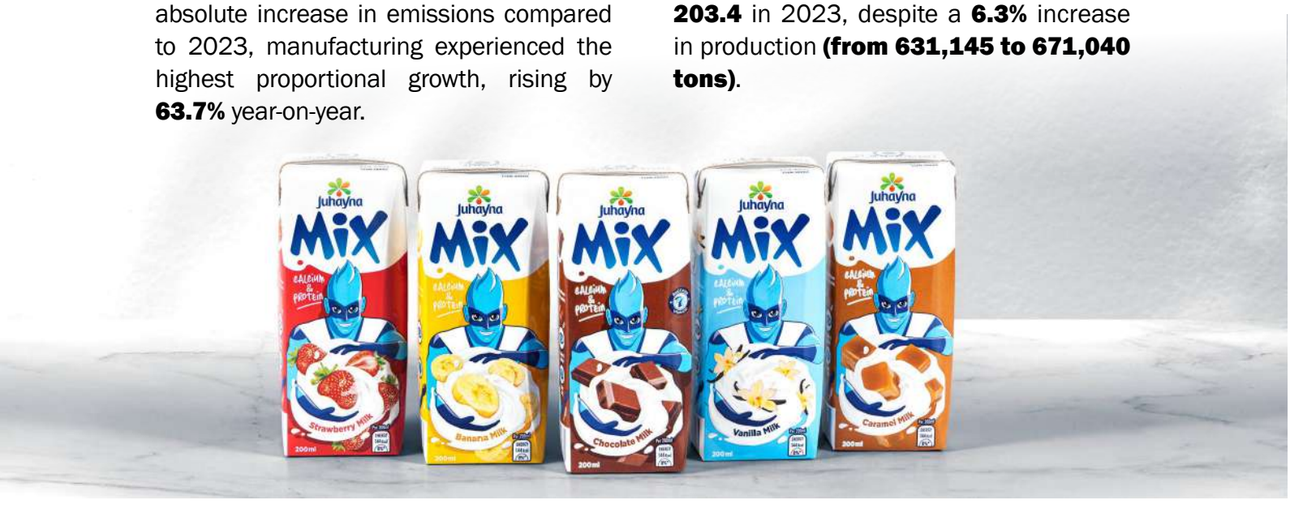
PERFORMANCE EVALUATION

JUHAYNA'S EMISSIONS YOY

SECTOR	EMISSIONS 2021 BY ($mtCO_2e$)	EMISSIONS 2023, $mtCO_2e$	EMISSIONS 2024, $mtCO_2e$	SHARE (%)
FARMING	899,606[1]	841,985[2]	952,797	82.0%
MANUFACTURING	94,438	96,669	158,290	13.6%
DISTRIBUTION	31,323	42,526	49,639	4.3%
HQ	817	902	925	0.1%
TOTAL EMISSIONS	**1,026,185** [1]	**982,082** [2]	**1,161,651**	

In 2024, Juhayna's total emissions reached **1,161,651 $mtCO_2e$**, marking an **18.2% increase** from 2023 and a **13.2% rise** from the 2021 base year. Farming remained the dominant contributor, accounting for **82.0%** of total emissions **(952,797 $mtCO_2e$)**, followed by manufacturing at **13.6% (158,290 $mtCO_2e$)** and distribution at **4.3% (49,639 $mtCO_2e$)**. Emissions from HQ operations were minimal at **0.1% (925 $mtCO_2e$)**. While farming saw the largest absolute increase in emissions compared to 2023, manufacturing experienced the highest proportional growth, rising by **63.7%** year-on-year.

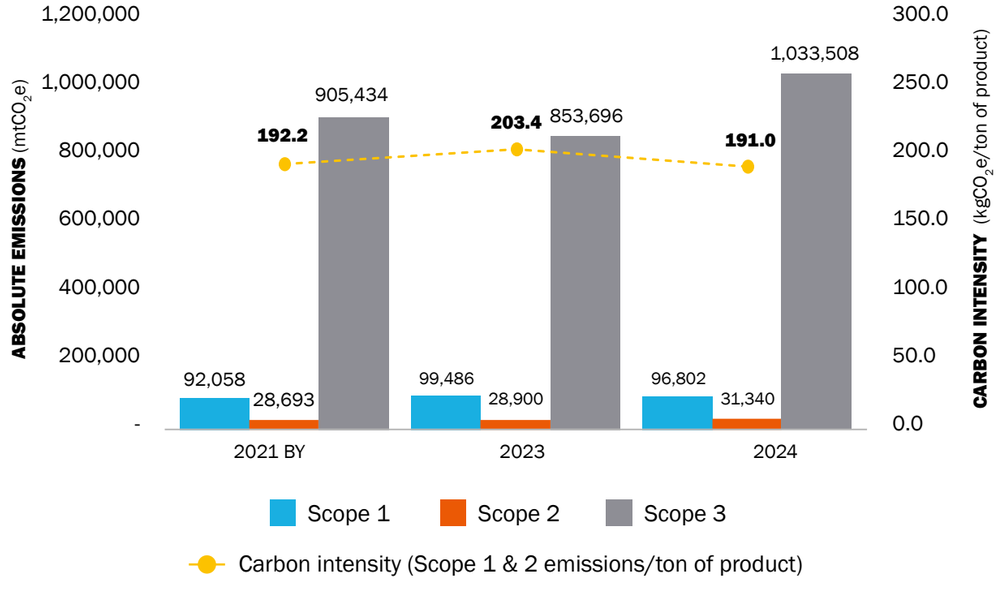
Scope 3 emissions reached **1,033,508 $mtCO_2e$**, a **21.1%** increase from 2023 and a **14.1%** rise from the 2021 base year. Scope 1 emissions decreased slightly to **96,802 $mtCO_2e$**, down **2.7%** from 2023, but still **5.2%** higher than in 2021. Scope 2 emissions from purchased electricity increased to **31,340 $mtCO_2e$**, up **8.4%** year-on-year and **9.2%** above the base year. Carbon intensity fell to **191.0 $mtCO_2e$/ton** in 2024, down from **203.4** in 2023, despite a **6.3%** increase in production **(from 631,145 to 671,040 tons)**.



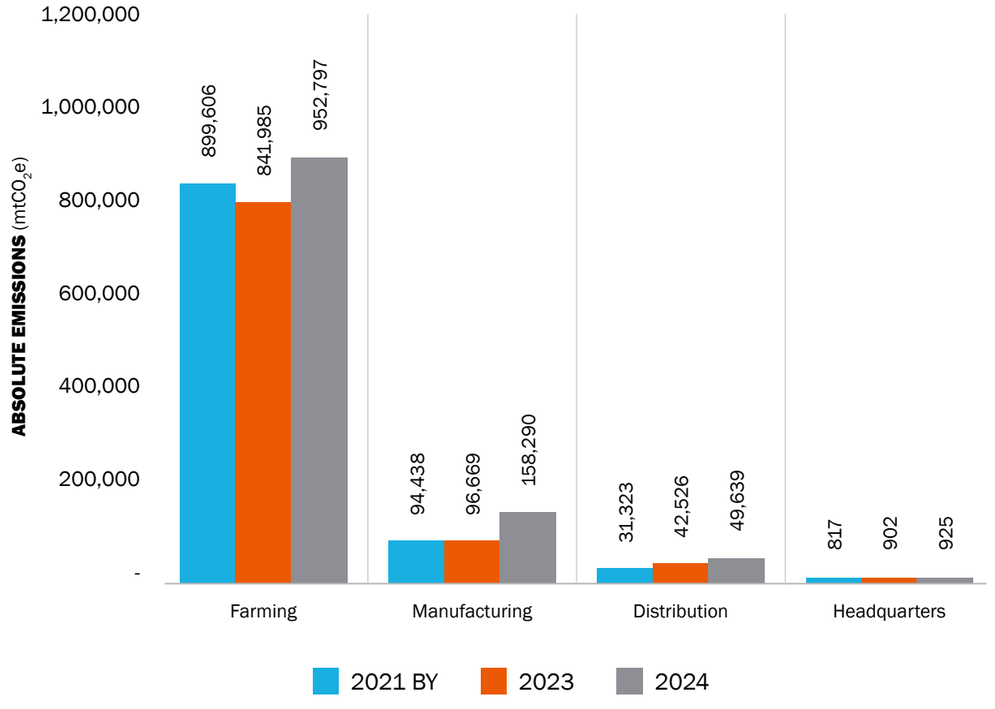
[1] Emissions from Al-Esseila Farm's milk transportation were incorrectly reported under both Scope 1 and Scope 3 (Category 4). These should only appear under Scope 3, Category 4: Upstream Transportation & Distribution.

[2] Al-Esseila farm's milk transportation emissions were reclassified from Scope 1 to Category 4: upstream transportation after identifying vehicles were outsourced, not Juhayna-owned.

YOY ABSOLUTE EMISSIONS AND CARBON INTENSITY



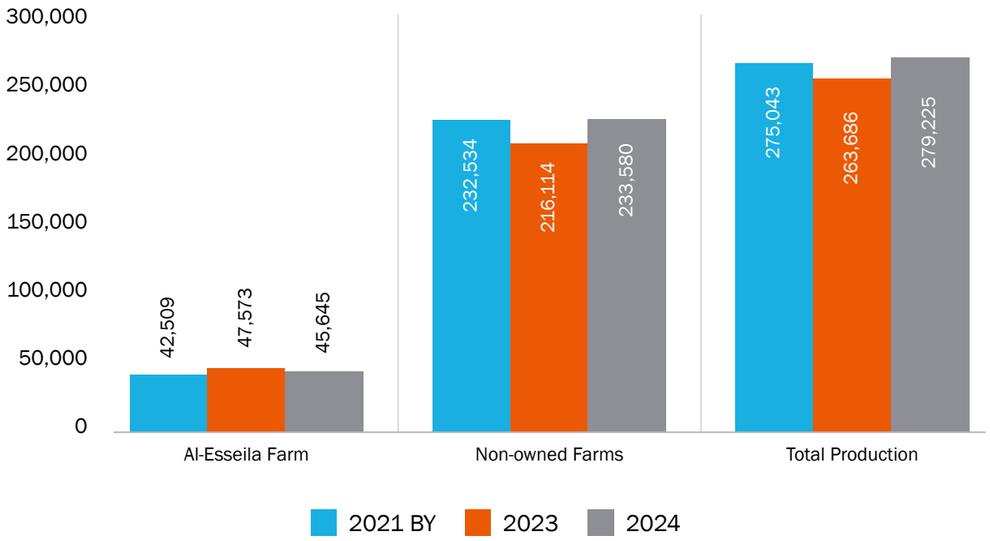
YOY ABSOLUTE EMISSIONS BY SECTOR



OUTPUT PRODUCTION YOY

FARMS

JUHAYNA MILK PRODUCTION (tons)



	Milk Production (tons)			
FACILITY	**2021 BY**	**2023**	**2024**	**INDICATOR**
AL-ESSEILA FARM	42,509	47,573	45,645	**7.4% increase**
NON-OWNED FARMS	232,534	216,114	233,580	**0.4% increase**
TOTAL PRODUCTION	**275,043**	**263,686**	**279,225**	**1.5% increase**

NON-OWNED FARMS

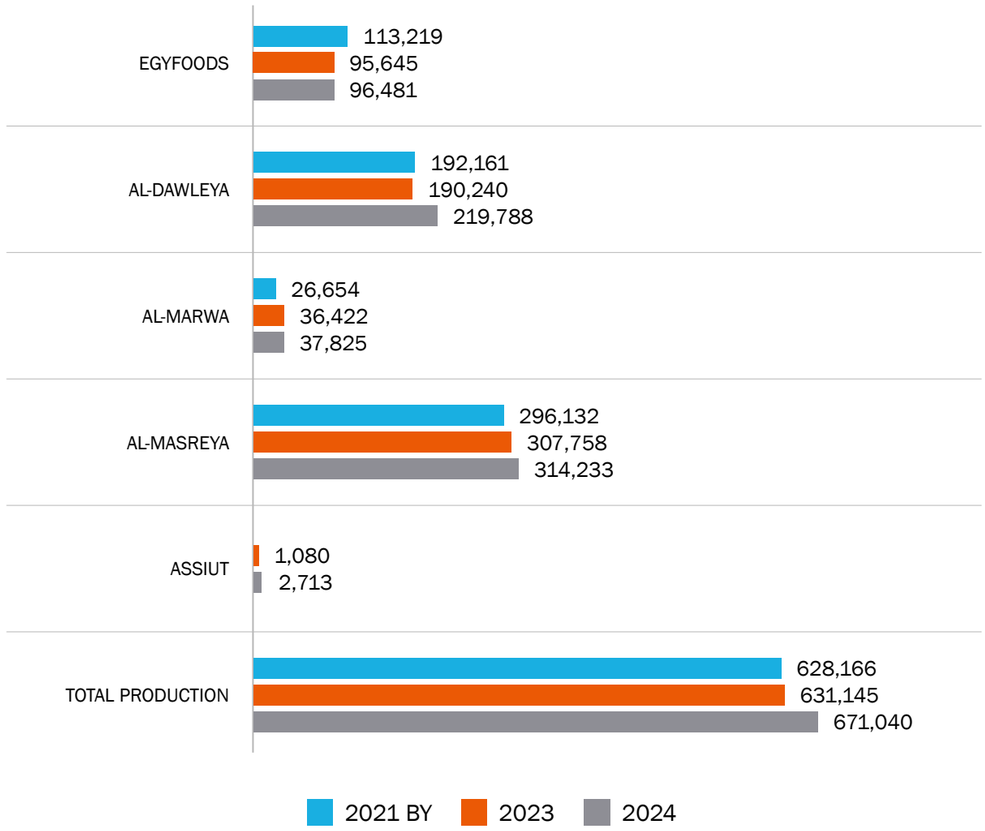
Achieved **7.4% growth** versus base year, though with a **4.1% increase** from prior year output

AL-ESSEILA FARM

Demonstrated stable **0.4%** base year growth with stronger **8.1%** year-over-year improvement

FACTORIES

JUHAYNA FACTORIES PRODUCTION (tons)



	Juhayna Production (tons)			
FACILITY	**2021 BY**	**2023**	**2024**	**INDICATOR**
EGYFOODS	113,219	95,645	96,481	**14.8% decrease**
AL-DAWLEYA	192,161	190,240	219,788	**14.4% increase**
AL-MARWA	26,654	36,422	37,825	**41.9% increase**
AL-MASREYA	296,132	307,758	314,233	**6.1% increase**
ASSIUT	–	1,080	2,713	**–**
TOTAL	**628,166**	**631,145**	**671,040**	**6.8% increase**

CARBON INTENSITY

Between the 2021 base year and 2024, emissions intensity per revenue dropped significantly, with a **61.3%** decrease relative to revenue and a **74.3%** decrease relative to EBIT, reflecting improved carbon efficiency in financial terms. However, emissions intensity per ton of product fell only slightly by **0.6%**. In terms of absolute emissions, Scope 1 rose by **5.2%**, Scope 2 by **9.2%**, and combined Scope 1 and 2 by **6.1%**. Scope 3 emissions increased sharply by **14.1%**, driving a total emissions increase of **13.2%** from the base year.

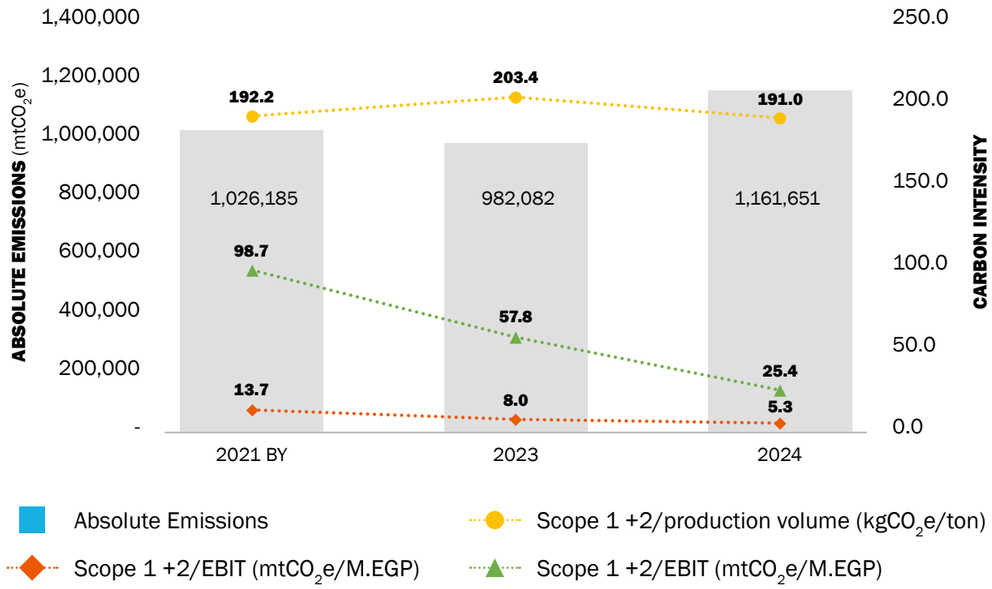
Juhayna's Carbon Emissions Intensity, YOY

EMISSIONS INTENSITY ($mtCO_2e$/M.EGP)				
	2021 BY	**2023**	**2024**	**INDICATOR**
REVENUE	13.7	8.0	5.3	**61.3% decrease**
EBIT	98.7	57.8	25.4	**74.3% decrease**

EMISSIONS INTENSITY ($kgCO_2e$/ton of product)				
	2021 BY	**2023**	**2024**	**INDICATOR**
	192.2	203.4	191.0	**0.6% decrease**

ABSOLUTE EMISSIONS ($mtCO_2e$)				
	2021 BY	**2023**	**2024**	**INDICATOR**
SCOPE 1	92,058	99,486	96,802	**5.2% increase**
SCOPE 2	28,693	28,900	31,340	**9.2% increase**
SCOPE 2 + 1	120,751	128,386	128,143	**6.1% increase**
	2021	**2023**	**2024 BY**	**INDICATOR**
SCOPE 3	905,434	853,696	1,033,508	-
TOTAL	**1,026,185**	**982,082**	**1,161,651**	-

YOY ABSOLUTE EMISSIONS AND CARBON INTENSITY

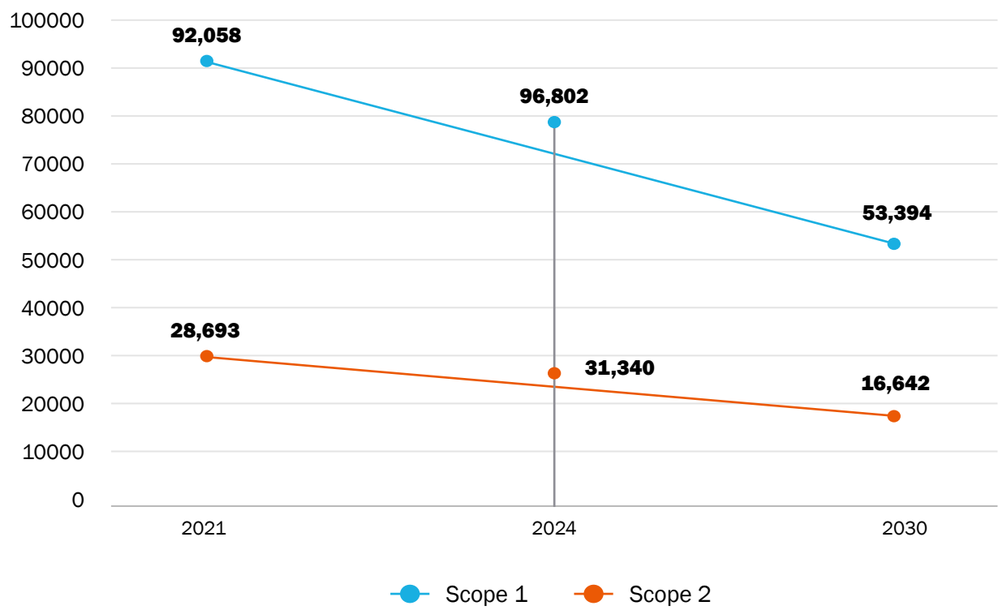


REDUCTION TARGETS

Juhayna is committed to a **42%** reduction target for combined Scope 1 and 2 (market-based) GHG emissions by 2030, using 2021 as the base year. However, the 2024 reporting data reveals that instead of decreasing, emissions have risen across both categories. Scope 1 emissions increased by **5.2% (from 92,058 to 96,802 mtCO_2e)**, while Scope 2 (market-based) emissions grew by **9.2% (from 28,693 to 31,340 mtCO_2e)**. As a result, the organization has only achieved **12%** of its Scope 1 reduction target and **22%** of its Scope 2 target.

	Base Year 2021	**Target Year** 2030	**Reporting Year** 2024	**Target Reduction** %	**Status** (% of target achieved)
Scope 1 ($mtCO_2e$)	92,058	53,394	96,802	42%	12%
Scope 2 (market-based ($mtCO_2e$)	28,693	16,642	31,340	42%	22%
Scope 1 + 2 ($mtCO_2e$)	120,751	70,036	128,143	42%	15%

ABSOLUTE EMISSIONS REDUCTION TARGET



BENCHMARKING

2024 CDP DISCLOSURE CYCLE CLIMATE CHANGE QUESTIONNAIRE

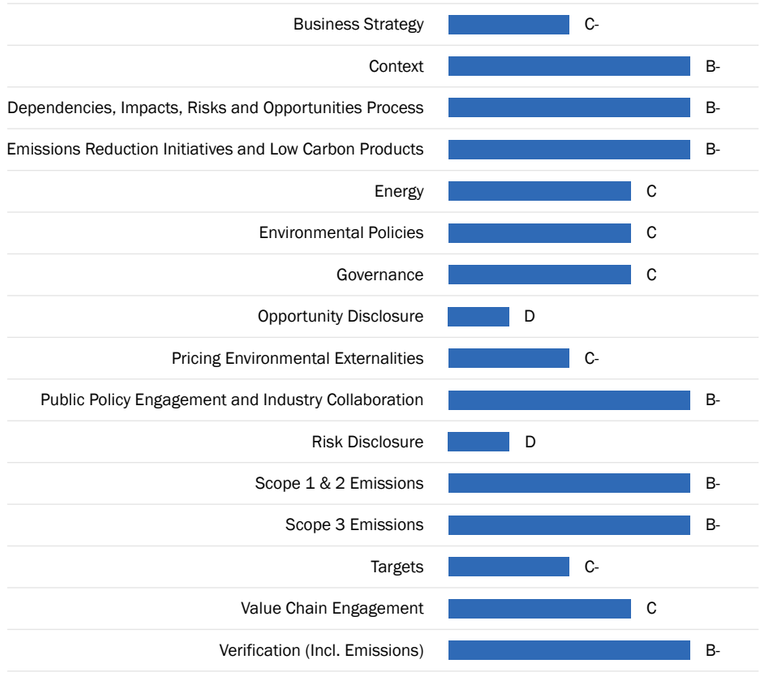
The 2024 CDP reporting cycle reflected a broader industry trend of stricter scoring, with Juhayna's Climate Change score moving to a **"D"** under the new, more rigorous methodology. This elevated benchmark underscores our opportunity to deepen the integration of climate action into our core business strategy. While our current emissions targets meet CDP's baseline requirements, we are now evaluating them to identify pathways for greater ambition. We are fully committed to adapting our approach to meet these evolving standards and are focused on demonstrating strengthened performance in the next reporting cycle.

In water security, Juhayna maintained its **"B-" score**, confirming our established management practices. This result reinforces the foundation of our water stewardship while highlighting our continued journey toward leadership in this critical area. We are dedicated to building on this progress through targeted initiatives and continuous improvement.

CDP CLIMATE CHANGE SCORES PER CATEGORY, 2024

D

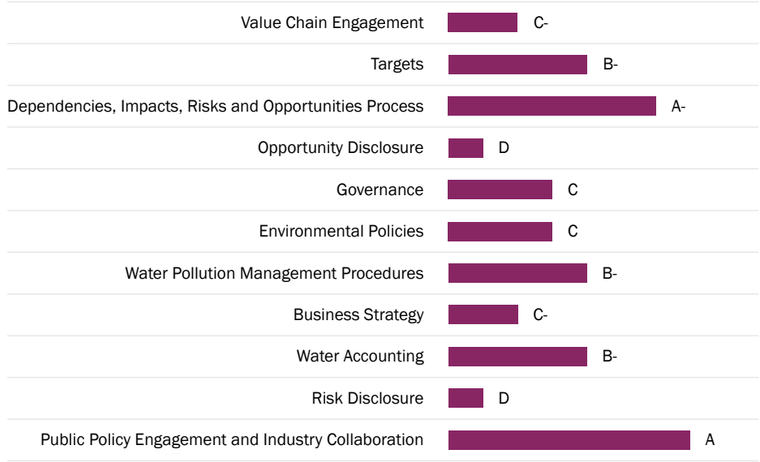
CDP Score
Climate Change



CDP WATER SCORES PER CATEGORY, 2024

B-

CDP Score
Water



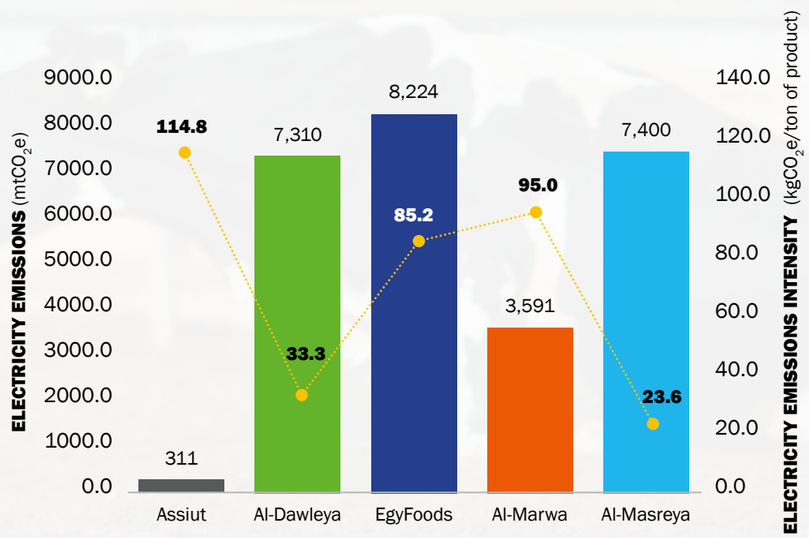
INTERNAL BENCHMARKING

Besides assessing our business' performance externally, we also strive to track and improve our performance internally. Therefore, an internal benchmarking is conducted, considering Scope 1 and 2 emissions of our manufacturing, and distribution sectors.

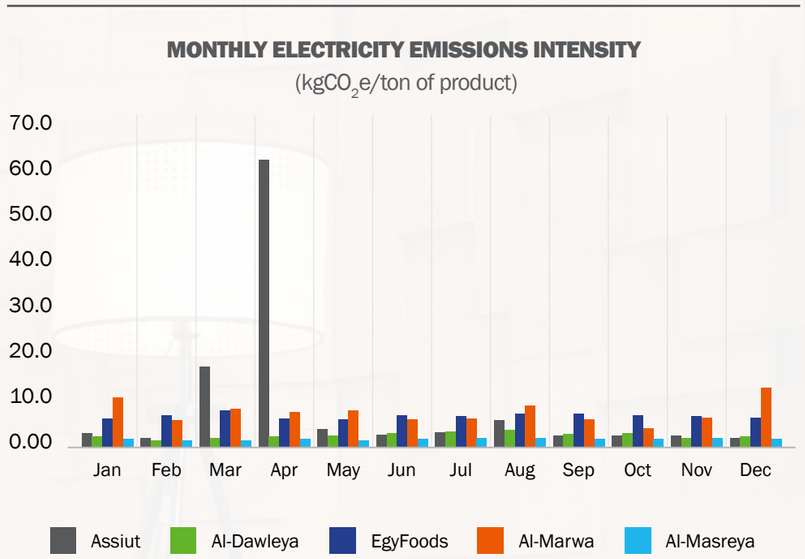
A MANUFACTURING

ELECTRICITY

TOTAL ELECTRICITY EMISSIONS AND CARBON INTENSITY



Electricity emissions intensity ($kgCO_2e$ per ton of product) was used to evaluate operational efficiency across factories. Al-Masreya Factory, with the highest annual production **(314,233 tons)** achieved the lowest electricity intensity at **23.6 $kgCO_2e$/ton**, demonstrating how scale of production optimizes energy use. Al-Dawleya showed moderate efficiency **(33.3 kgCO2e/ton)** given its significant output **(219,788 tons)**, Conversely, Assiut Factory, operating seasonally with minimal output **(2,713 tons)**, reported the highest intensity at **114.8 $kgCO_2e$/ton, 4.9 times higher** than Al-Masreya, while EgyFoods and Al-Marwa with intensities above **85 $kgCO_2e$/ton** emerged as priority decarbonization targets. To address these hotspots, we recommend leveraging Al-Masreya's best practices group-wide.



To deepen our efficiency analysis, we examined monthly electricity emissions intensity ($kgCO_2e$/ton).

Al-Masreya maintained industry-leading consistency **(1.57–2.21 $kgCO_2e$/ton)**, demonstrating year-round operational excellence despite peak production volumes. Al-Dawleya showed remarkable stability **(1.57–3.82 $kgCO_2e$/ton)**, validating its moderate annual intensity **(33.3 $kgCO_2e$/ton)** despite high output.

Assiut exhibited extreme volatility, with an April spike of **64.21 $kgCO_2e$/ton**, a direct consequence of seasonal operation inefficiencies during high-demand periods. EgyFoods and Al-Marwa displayed concerning consistency in higher ranges **(6.24–8.42 and 4.28–13.43 $kgCO_2e$/ton, respectively)**, confirming their status as priority decarbonization targets.

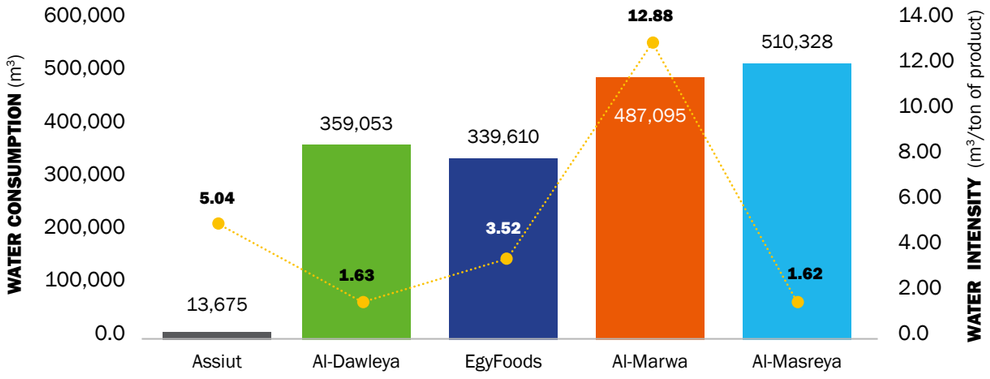
Monthly Purchased Electricity Emissions Intensity ($kgCO_2e$/ton of product)

	LOWEST		HIGHEST	
ASSIUT	Dec	2.30	Apr	64.21
AL-DAWLEYA	Feb	1.57	Aug	3.82
EGYFOODS	Apr	6.24	Mar	8.42
AL-MARWA	Oct	4.28	Dec	13.43
AL-MASREYA	Mar	1.57	Aug	2.21

Peak vulnerability Stability models

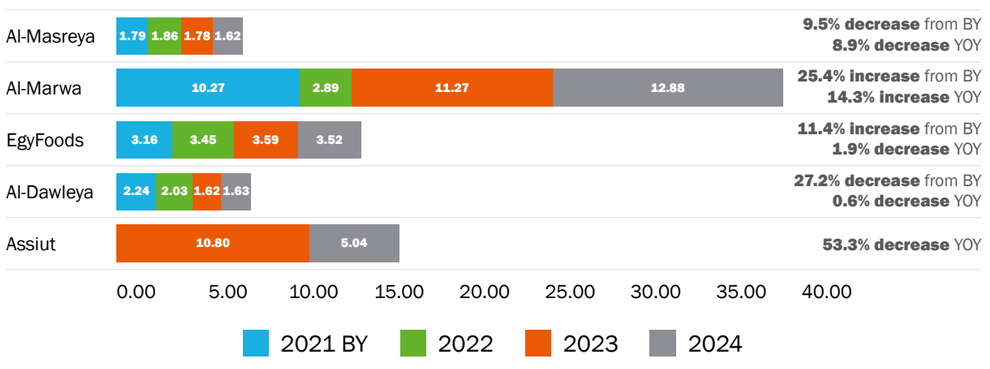
WATER

TOTAL WATER CONSUMPTION AND INTENSITY

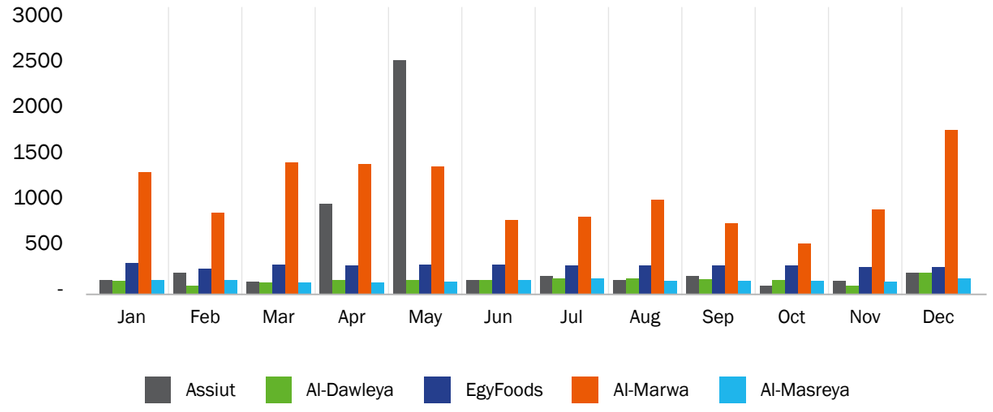


Water intensity (m^3 per ton of product) is a critical KPI for Juhayna, reflecting resource efficiency in water-intensive processes like cleaning, pasteurization, and processing. **Al-Masreya Factory** exemplifies operational excellence, achieving industry-leading dual-resource efficiency despite peak production volume **(314,233 tons)**. Its water intensity **(1.62 m³/ton)** and electricity emissions **(23.6 kgCO_2e/ton)** set sector benchmarks, demonstrating that scale enables optimization. Remarkably, Al-Masreya matches Al-Dawleya's water efficiency **(1.63 m³/ton)** while producing **43%** more output. However, the other facilities require interventions to address efficiency gaps. **Al-Marwa (12.88 m³/ton)** consumes **8 times** more water per ton than Al-Masreya, signaling critical inefficiencies that necessitate a comprehensive water audit. **EgyFoods (3.52 m³/ton)** underperforms despite mid-scale production **(96,481 tons)**, indicating fundamental process optimization opportunities. **Assiut (5.04 m³/ton)** shows disproportionate intensity for its limited output (2,713 tons), demanding immediate infrastructure assessment to identify leaks or outdated equipment.

WATER INTENSITY, YOY (m^3/ton of product)



MONTHLY WATER INTENSITY (m^3/thousand ton of product)



Al-Masreya maintains a consistent intensity year-round **(113–163 m³)**. Its December peak **(163 m³)** remains **42%** below Al-Dawleya's highest month and **90%** lower than Al-Marwa's extreme values. Al-Dawleya and EgyFoods show moderate but unstable performance. Al-Dawleya fluctuates significantly **(76–223 m³)**, peaking in December. EgyFoods operates within a narrower band **(266–315 m³)**. However, two critical hotspots demand urgent intervention. Al-Marwa exhibits dangerous volatility **(527–1,760 m³)**, with December intensity soaring to **1,760 m³**, which is **11 times** higher than Al-Masreya's average, while simultaneously recording the factory's highest electricity **intensity (13.43 kgCO_2e/ton)** in the same month. This dual December surge confirms critical inefficiencies during high-demand periods. Assiut suffers acute seasonal breakdowns, particularly in May **(2,502 m³)** where intensity spikes to **35 times** its October low **(76 m³)**. Operational risks are concentrated in specific periods, particularly Al-Marwa's December vulnerability and Assiut's May crisis.

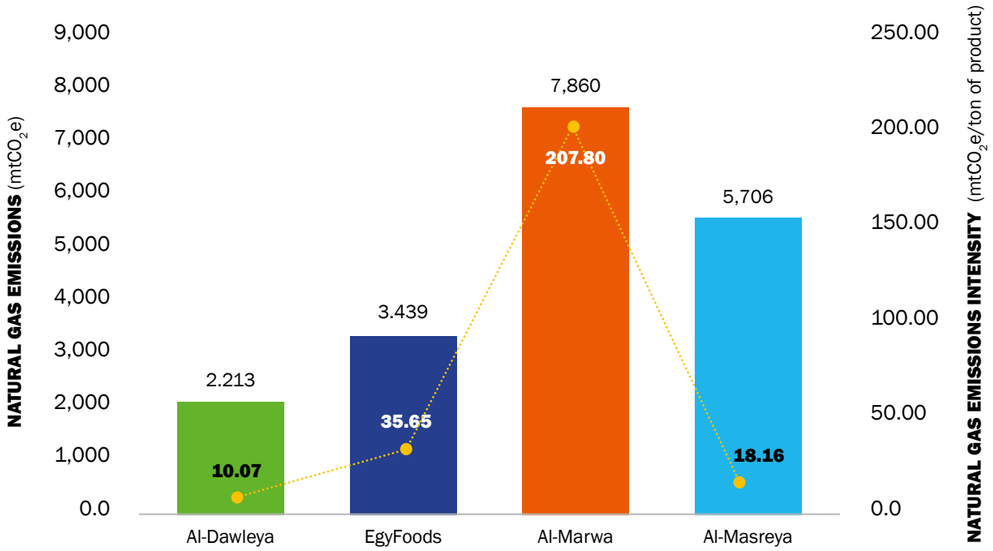
Monthly Water Intensity (m^3/thousand ton of product)

	LOWEST		HIGHEST	
ASSIUT	Oct	76	May	2,502
AL-DAWLEYA	Nov	76	Dec	223
EGYFOODS	Feb	266	Jan	315
AL-MARWA	Nov	527	Dec	1,760
AL-MASREYA	Apr	113	Dec	163

Peak vulnerability Stability models

NATURAL GAS

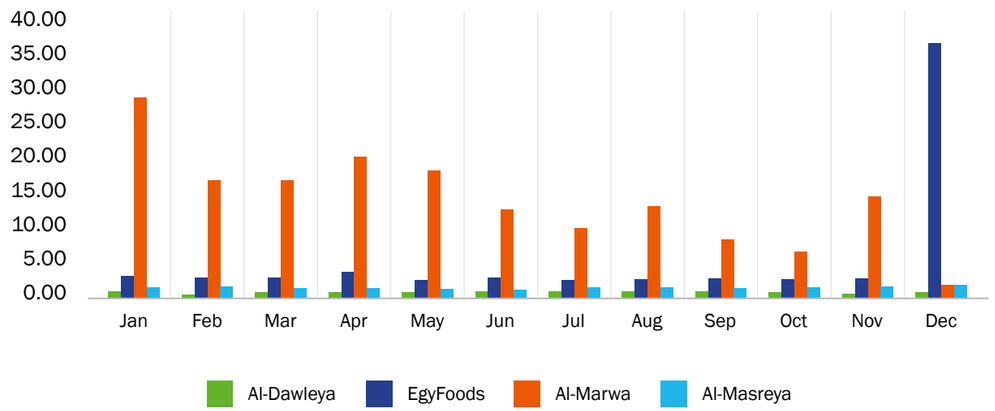
TOTAL NATURAL GAS EMISSIONS AND CARBON INTENSITY



Natural gas consumption is a critical environmental metric for industrial facilities due to its direct impact on operational emissions. Al-Masreya again exemplifies operational excellence. Despite being the largest producer by far **(314,233 tons)**, it maintains a relatively low carbon intensity **(18.16 $kgCO_2e$/ton)**. Similarly, Al-Dawleya demonstrates the lowest carbon intensity **(10.07 $kgCO_2e$ per ton produced)**, emitting only **2,213 $kgCO_2e$** despite a production volume of 219,788 tons. This positions it as the most efficient factory in terms of natural gas.

In contrast, Al-Marwa emerges as a significant outlier, reporting both the highest absolute natural gas emissions **(7,860 $mtCO_2e$)** and the highest carbon intensity per ton of product **(207.80 $kgCO_2e$/ton)**, figures starkly disproportionate to its relatively low production volume **(37,825 tons)**, suggesting possible operational flaws. In addition, EgyFoods shows notable inefficiency, it produces the smallest volume **(96,481 tons)** but exhibits high carbon intensity **(35.65 $kgCO_2e$/ton)**. This drives disproportionately large emissions **(3,439 $kgCO_2e$)** for its output level, exceeding Al-Dawleya's emissions despite producing less than half the volume.

MONTHLY NATURAL GAS INTENSITY ($kgCO_2e$/thousand ton of product)



Al-Dawleya demonstrates exceptional consistency and efficiency, maintaining the lowest intensity in every month **(range: 0.51–1.00 $kgCO_2e$/ton)** with negligible fluctuations. This stability, coupled with an industry-leading annual average **(0.83)**, positions it as the benchmark for operational excellence in terms of natural consumption. Al-Masreya also exhibits strong performance, sustaining low intensity **(1.13–1.91)** despite its massive production scale. Its minor December peak **(1.91)** remains well-controlled and is **20X** lower than Al-Marwa's worst month.

Conversely, EgyFoods shows exhibits operational inefficiency, with all monthly intensities exceeding **2.57 $kgCO_2e$/ton**, and no sign of seasonal improvements Similarly, Al-Marwa, exhibits extreme volatility **(6.87–37.29)**. Its December spike **(37.29$kgCO_2e$/ton)**, is **38X** worse than Al-Dawleya's February low, and its December intensity alone exceeds EgyFoods' entire monthly average. While July-October hinted at potential fixes, the November-December collapse reveals unresolved vulnerabilities, likely tied to equipment malfunctions or uncontrolled leaks during high-demand periods.

Monthly Natural Gas Emissions Intensity ($kgCO_2e$/ton of product)

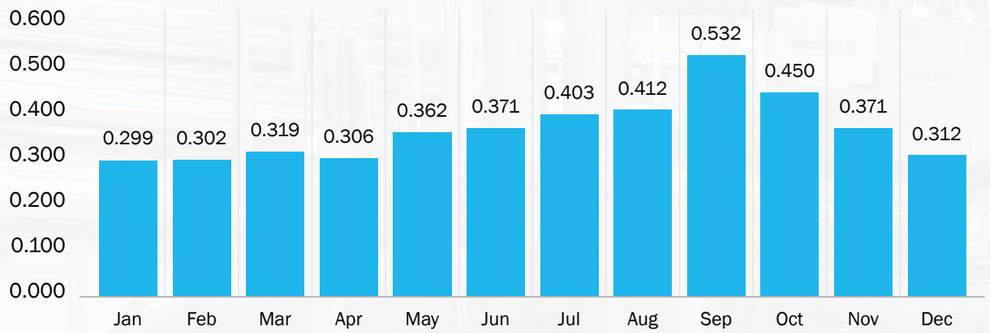
	LOWEST		HIGHEST	
AL-DAWLEYA	Feb	0.51	Aug	1.00
EGYFOODS	May	2.57	Apr	3.74
AL-MARWA	Oct	6.87	Dec	37.29
AL-MASREYA	Jun	1.13	Dec	1.91

Peak vulnerability Stability models

B DISTRIBUTION

ELECTRICITY

MONTHLY ELECTRICITY EMISSIONS INTENSITY ($kgCO_2e$/ton of product)

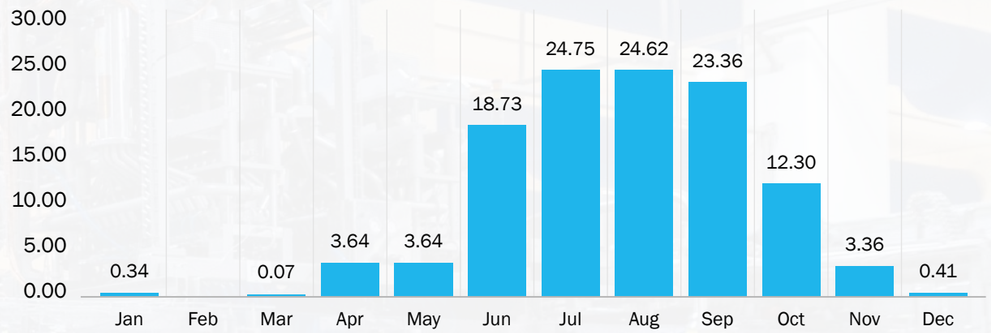


The disribution centers exhibit significant seasonal electricity intensity volatility, with emissions rising **78%** from January's efficient baseline **(0.299 $kgCO_2e$/ton)** to September's operational peak **(0.532 $kgCO_2e$/ton)**. A prolonged summer inefficiency cycle persists from May through October, where the 6-month average intensity **(0.418 $kgCO_2e$/ton)** exceeds winter performance **(0.311 $kgCO_2e$/ton)** by **32%**, indicating systemic warm-weather vulnerabilities.

Monthly Electricity Emissions Intensity ($kgCO_2e$/ton of product)				
	LOWEST		HIGHEST	
Warehouses	Jan	0.299	Sep	0.532

NATURAL GAS

MONTHLY NATURAL GAS EMISSIONS INTENSITY (gCO_2e/ton of product)

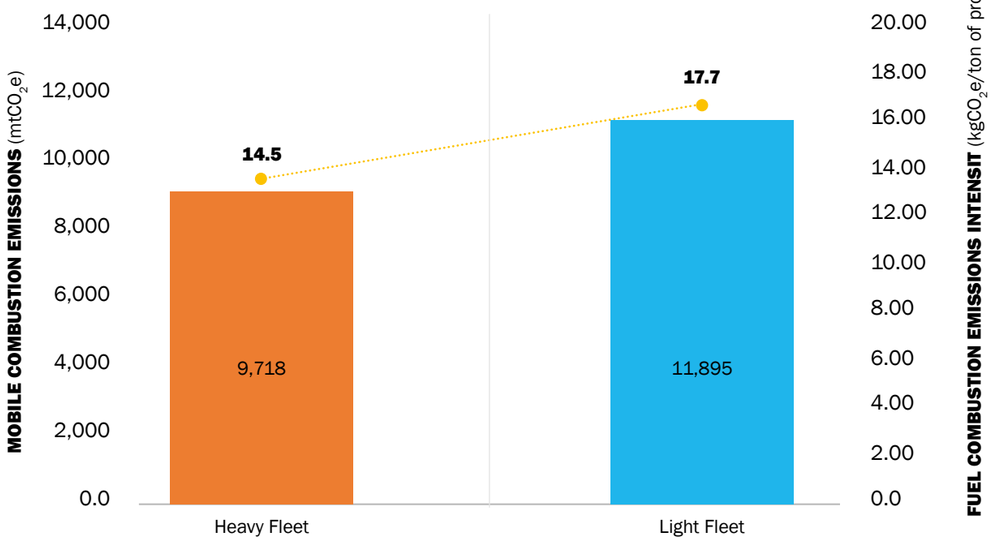


The distribution centers exhibit seasonal variance in natural gas emissions intensity, revealing general operational inefficiencies. Winter months demonstrate near-optimal efficiency, notably March **(0.07)**, and December **(0.41)**, suggesting well-controlled baseline operations during cooler periods. However, this stability collapses dramatically in summer. Emissions rise from March **(0.07)** to April **(3.64)**, then escalate to the peaks of **24.75** in July and **24.62** in August. This prolonged high-emission phase (June-October average of **19.55 gCO_2e/ton**) indicates severe combustion inefficiencies or uncontrolled methane leaks during cooling demand periods. The February 0.00 reading requires immediate validation to rule out meter errors.

Monthly Natutal Gas Emissions Intensity (gCO_2e/ton of product)				
	LOWEST		HIGHEST	
Warehouses	Mar	0.07	Jul	25.75

MOBILE COMBUSTION - DISTRIBUTION FLEET

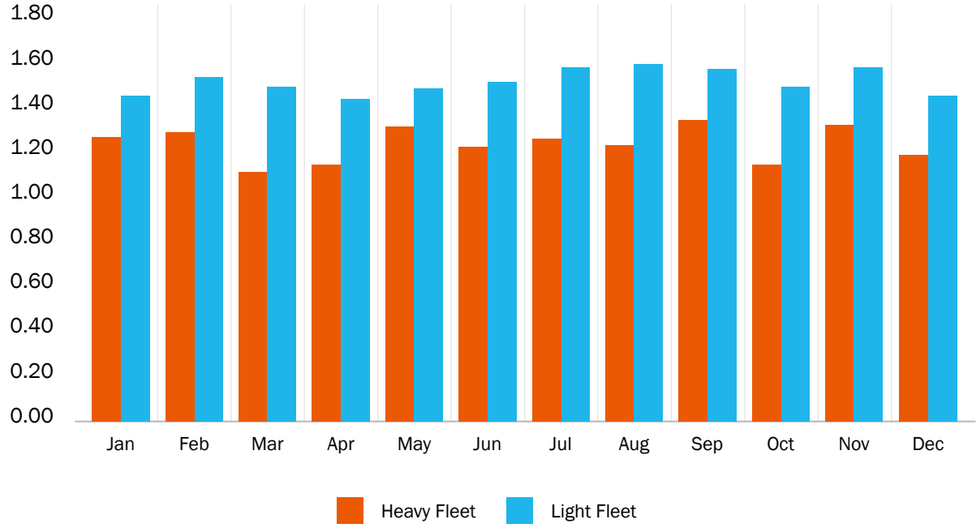
TOTAL MOBILE COMBUSTION EMISSIONS AND CARBON INTENSITY



Heavy Fleet operations (factory-to-distribution center transport) demonstrate relatively optimized performance with **9,718 mtCO$_2$e** total emissions and a carbon intensity of **14.5 kgCO$_2$e/ton** transported. Conversely, Light Fleet operations (distribution center-to-retail) exhibit a higher environmental impact, generating **11,895 mtCO$_2$e** (**22%** more emissions than Heavy Fleet) at an intensity of **17.7 kgCO$_2$e/ton** (**22%** higher per ton transported).

MONTHLY MOBILE COMBUSTION EMISSIONS INTENSITY

(kgCO$_2$e/ton of product)



For the heavy fleet emissions intensity ranges narrowly from **1.08 kgCO$_2$e/ton (March)** to **1.31 kgCO$_2$e/ton (September)** , a minimal **21%** variance across seasonal demands. Even September's modest 1.31 peak is only **8%** above the annual average **(1.20)**. for the light fleet, no month falls below **1.40 kgCO$_2$e/ton**, and the average annual intensity of **1.48 kgCO$_2$e/ton is 22%** higher than Heavy Fleet, peaking at **1.56 (August)** and **1.54 (July)**.

Monthly Mobile Combustion Emissions Intensity (kgCO$_2$e/ton of product)				
	LOWEST		HIGHEST	
Heavy Fleet	Mar	1.08	Sep	1.31
Light Fleet	Apr	1.40	Apr	1.56

DECARBONIZATION PLAN

ENERGY AND WATER EFFICIENCY AUDIT AND MANAGEMENT SYSTEM

STATUS

All factories have comprehensive energy efficiency audits and management systems in place and are certified under ISO 50001 standards.

Water Management Initiatives Across Factories:

- **Updated Water Usage Mapping:** Detailed mapping of water use across all operational areas ensures efficient tracking and identification of high-consumption processes.
- **Digital Monitoring:** Advanced water flowmeters integrated with SCADA systems allow precise, real-time monitoring of water consumption, enabling prompt adjustments for efficiency.
- **Optimized Cleaning Practices:** Low-flow hoses and enhanced cleaning protocols are implemented to minimize water use during daily operations, contributing to significant reductions.
- **Water Reuse and Recycling:** Condensate water is repurposed for various processes, including washing and boiler feed, reducing the need for fresh water and enhancing overall water efficiency.
- **Ongoing Monitoring and Improvements:** Continuous observation of water consumption at key points ensures targeted action and ongoing optimization efforts, even where formal water management systems are not yet established.

CLIMATE-RELATED INCENTIVE PROGRAM DEVELOPMENT

STATUS

Set specific, measurable climate goals for emissions, water, and energy reduction across departments and facilities. Develop financial and non-financial rewards tailored to employees, suppliers, and partners, such as bonuses, recognition, or exclusive contracts. Implement resource efficiency targets for each facility, with incentives for achieving reductions in energy and water use. Regularly track and report on achievements, sharing success stories to motivate continuous improvement.

WASTE MANAGEMENT PLAN AND OPERATING SYSTEM

STATUS

Waste Management Initiatives Across Factories:

- **Comprehensive Waste Management Plan:** A structured waste management plan is in place, with clear procedures for waste segregation starting at the source using recycling bins across the facilities.
- **Approved Recycling Partnerships:** Existing contracts with government-certified, environmentally approved suppliers ensure that waste is managed and disposed of responsibly, adhering to regulatory standards.
- **Systematic Waste Classification:** Waste is separated and classified effectively within the plant, starting from designated recycling stations, to streamline the recycling process and enhance waste sorting efficiency.
- **Reuse and Recovery Initiatives:** Operations and quality teams conduct risk assessments to identify opportunities for waste reuse and material recovery, minimizing landfill contributions and promoting sustainable practices.

DESIGN, ADOPT AND IMPLEMENT A REFRIGERATE LEAKAGE REDUCTION PROGRAM

STATUS

Cooling System Optimization Initiatives Across Factories:

- **Ammonia Refrigerant Usage:** Cooling systems across all facilities utilize ammonia as the primary refrigerant, prioritizing energy efficiency and minimizing environmental impact.
- **Integration of Absorption Chillers:** Absorption chillers operating with a brine solution are implemented, enhancing the cooling process while further optimizing resource efficiency and sustainability.

COMPANY FLEET VEHICLE EFFICIENCY

STATUS

Implement routine inspections and maintenance to guarantee that the vehicles in the transportation fleet are operating effectively in terms of fuel consumption.

Optimized the fill rate of vehicles to ensure they are optimally loaded for each vehicle.

ESG DATA MANAGEMENT SYSTEM

STATUS

Develop a tailored ESP platform and training and capacity building.

CORPORATE CULTURE

STATUS

Introduce environmental culture through training and capacity-building programs.

ANALYSIS OF EMPLOYEE COMMUTING

STATUS

Design, adopt and implement employee commuting data collection and analysis system.

SUSTAINABILITY POLICIES

STATUS

Introduce and adopt sustainability policies for all Juhayna's activities, with commitment to practices and standards to promote environmentally and socially responsible operations, including developing low-carbon business travel policy.

GREEN BUILDING GUIDELINES

STATUS

Develop and adopt green building guidelines incl. refurbishment of buildings such as insulation, draught proofing, efficient lighting and lighting control, HVAC operational parameters and control, external/internal shading optimization, daylight and occupancy sensors and building energy and water efficiency and management.

Occupancy sensors installed in some common areas in the HQ.

LOWER EMISSIONS SOURCES OF ENERGY

STATUS

- **Natural Gas for Boiler Operations:** Natural gas is utilized for boiler operations at El Marwa, Dawleya, and El Masreya, reducing greenhouse gas emissions compared to conventional fuel sources.
- **Solar Heating Systems:** El Marwa has adopted solar heaters as a sustainable alternative to gas heaters, reducing its reliance on natural gas and enhancing energy efficiency.
- **On-Grid Solar Panels:** Dawleya has installed an on-grid solar panel system in the car parking area, generating 14.28 kW of renewable energy, which helps decrease the facility's carbon footprint.

SUPPLY CHAIN DECARBONIZTION AND CLIMATE RESILIENCE PROGRAM

STATUS

Implement program for supply chain decarbonization and climate resilience, including but not limited to training and capacity-building webinars and workshops, carbon footprint analysis, adoption of regenerative agriculture, resource efficiency, and environmental management system in accordance with ISO 140001.

Annex

DEFINITIONS & TERMINOLOGY

Reduced emissions	Reduced emissions refer to emissions that are prevented from being released into the atmosphere. At Juhayna, photovoltaic (PV) systems are employed at Al-Esseila Farm and Al-Dawelya Factory, helping to avoid emissions that would have otherwise resulted from using diesel generators and the electricity grid for power generation.
Base year	A base year is a reference year in the past with which current emissions can be compared. To maintain the consistency and comparability with future carbon footprints, base year emissions need to be recalculated when structural changes occur in the company that change the inventory boundary (such as acquisitions or divestments). If no changes to the boundaries of the inventory happen, the base year is not adjusted.
Biogenic carbon	Emissions related to natural carbon cycle and resulting from the combustion, processing, harvesting, fermentation, digesting and decomposition of biological sources and they include CO_2 removal because of afforestation and reforestation.
Carbon footprint	The amount of Carbon Dioxide that an individual, group, or organization lets into the atmosphere in a certain time frame.
CO_2e	Carbon dioxide equivalent or CO_2 equivalent, abbreviated as CO_2e, is a metric used to compare the emissions from various GHGs based on their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.
CO_2e sequestration	The capture and secure storage of carbon that would otherwise be emitted to or remain in the atmosphere.
Direct emissions	Greenhouse gas emissions from facilities/sources owned or controlled by a reporting company, e.g., generators, blowers, vehicle fleets.
Emission factors	Specific value used to convert activity data into greenhouse gas emission values.

Fugitive emissions	Fugitive emissions are emissions of gases or vapors from pressurized equipment due to leaks and other unintended or irregular releases of gases, mostly from industrial activities. Besides the economic cost of lost commodities, fugitive emissions contribute to air pollution and climate change.
GHG protocol	Greenhouse Gas Protocol is a uniform methodology used to calculate the carbon footprint of an organization.
GWP	Global Warming Potential is an indication of the global warming effect of a greenhouse gas in comparison to the same weight of carbon dioxide.
Indirect emissions	Greenhouse gas emissions from facilities/sources that are not owned or controlled by the reporting company, but for which the activities of the reporting company are responsible, e.g., purchasing of electricity.
Kyoto protocol	It operationalizes the United Nations Framework Convention on Climate Change by committing industrialized countries to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets.
Operational boundary	Determination of which facilities or sources of emissions will be included in a carbon footprint calculation.
Organizational boundary	Determination of which business units of an organization will be included in a carbon footprint calculation.
Refrigerant	A refrigerant is a substance or mixture, usually a fluid, used in a heat pump and refrigeration cycle.

Power Purchase Agreement	A Power Purchase Agreement (PPA) is a contractual arrangement in which an organization agrees to purchase electricity directly from an energy producer at a predetermined price over a specified period. PPAs allow organizations to secure a reliable supply of electricity often from renewable sources without owning or operating the generation assets.
Renewable energy	Energy from a source that is not depleted when used, such as wind or solar power.
Scope 1	Direct emissions from sources that are owned or controlled by the reporting entity (i.e., any owned or controlled activities that release emissions straight into the atmosphere).
Scope 2	Indirect emissions associated with the consumption of purchased electricity, heat or steam from a source that is not owned or controlled by the company.
Scope 3	Indirect emissions resulting from other activities that are not covered in scope 1 and 2. This includes transport fuel used by air business travel, and employee-owned vehicles for commuting to and from work; emissions resulting from courier shipment; emissions from waste disposal, etc.

DATA SOURCES & QUALITY

All data is retrieved from Juhayna's Database and is corresponding to activities occurring during 2024. The data quality has been assessed and the unit and resolution of each line of the business are presented below.

● Good — No changes recommended

● Satisfactory — Could be improved

● Weak — Priority area for improvement

Scope	ACTIVITY			DATA		UNITS
DISTRIBUTION CENTERS						
1	**Stationary combustion**	Natural gas	●	37,478		m^3
1	**Mobile combustion**	Transport vehicles	●	Diesel	8,120,423	liters
1	**Fugitive emissions**	Refrigerants leakage	●	HFC134-a	442	kg
2	**Purchased energy**	Purchased electricity	●	6,494		MWh
3	**Purchased goods and services**	Water use	●	55,200		m^3
3	**Transportation & Distribution**	Exports	●	65,902,654		ton.km
		Outsourced vehicles Milk Transportation	●	3,421,889		km
3	**Waste generated in operations**	Wastewater treatment	●	49,680		m^3
		Solid waste disposal	●	325		tons
3	**Employee Commuting**	Employee Commuting +WTT	●	Buses	69,839,810	p.km

Scope	ACTIVITY			DATA		UNITS
HEADQUARTERS						
1	**Mobile combustion**	Passenger vehicles	●	Diesel	23,004	liters
			●	Petrol	56,223	
2	**Purchased energy**	Purchased electricity	●	244		MWh
3	**Purchased goods and services**	Water use	●	13,181		m^3
3	**Waste generated in operations**	Wastewater treatment	●	11,863		m^3
3	**Business travel**	Air travel	●	187,181		p.km
		Hotel stays	●	206		days
3	**Employee commuting**	Employee Commuting + WTT	●	Cars	2,054,400	km
			●	Taxis	158,400	p.km
			●	Buses	157,358	p.km

Scope	ACTIVITY			DATA		UNITS
FARMING						
1	**Stationary combustion**	Diesel used in generators	●	1,595,331		liters
		Diesel used in machinery	●	378,798		
1	**Mobile combustion**	Passenger vehicles	●	Diesel	9,824	liters
		Transport vehicles	●	Diesel	13,285	liters
1	**Agricultural emissions**	Fertilizers	●	778,000		kg
		Enteric Fermentation & Livestock Management	●	7,269		count
			●	Grid	3081	MWh
2	**Purchased energy**	Purchased electricity	●	PPAs	9,476	MWh
3	**Purchased goods and Services**	Purchased materials	●	1,499,564,249		EGP
			●	6,399		USD
3	**Transportation & Distribution**	Exports	●	14,023,757		ton.km
		Farm products distribution	●	18,170,000		ton.km
			●	Diesel	718,200	liters
3	**Capital goods**	Capital goods	●	141,153,590		EGP
3	**Waste generated in operations**	Solid waste disposal	●	41		tons

Scope	ACTIVITY			DATA		UNITS
MANUFACTURING						
1	**Stationary combustion**	Natural gas	●	9,315,083		m^3
		Diesel used in machinery	●	53,669		liters
1	**Fugitive emissions**	Refrigerants leakage	●	HCFC22-/ R22	144	kg
			●	HFC134-a	84	
			●	R410A	12	
2	**Purchased energy**	Purchased electricity	●	58,506		MWh
3	**Purchased goods and Services**	Water use	●	1,709,761		m^3
		Purchased materials	●	2,456,314,999		EGP
			●	123,628,068		USD
3	**Capital goods**	Capital goods	●	702,785,006		EGP
3	**Waste generated in operations**	Wastewater treatment	●	1,538,785		m^3
		Solid waste disposal	●	4,002		tons
3	**Employee Commuting**	Employee Commuting + WTT	●	Buses	74,107,158	p.km
3	**End-of-life treatment of sold products**	End-of-life treatment of sold products	●	140,187		tons
	Reduced emissions	PV Panels	●	73,320		kWh

RELAVANCY & EXCLUSIONS

The following table describes the GHG emissions sources that were excluded from Juhayna's GHG inventory due to several reasons, including: lack of data, and data that is beyond Juhayna's operation and control and hence considered technically infeasible to attain. The exclusion rationale per activity has also been specified.

#	ACTIVITY	DESCRIPTION	EMISSIONS ($mtCO_2e$)	STATUS
1	**Purchased goods and services**	Water consumption, raw material sourcing, packaging production, farming goods from company-owned farms, and emissions from our network of local supplier farms.	945,952	Relevant, calculated
2	**Capital goods**	Embodied carbon in Juhayna's owned assets, including machinery and vehicles, etc.	2,172	Relevant, calculated
3	**Fuel and energy-related activities (not included in Scope 1 and 2)**	Well-to-tank emissions from purchased energy, grid losses, and upstream fuel supply chain losses	17,370	Relevant, calculated
4	**Upstream transportation and distribution**	Emissions from milk/fruit transport to factories and exports.	13,752	Relevant, calculated
5	**Waste generated in operations**	Solid waste disposal and wastewater treatment emissions.	1,063	Relevant, calculated
6	**Business travel**	Air, land travel, and hotel stays (including WTT emissions).	48	Relevant, calculated
7	**Employee commuting**	Emissions from employee travel to work.	19,909	Relevant, calculated
8	**Upstream leased assets**	Juhayna does not have any upstream leased assets.	NA	Not relevant, explanation provided
9	**Downstream transportation & distribution**	Emissions from retailer storage are considered immaterial due to the shelf-stable nature of the product portfolio, which negates the need for energy-intensive cold storage.	NA	Not relevant, explanation provided
10	**Processing of sold products**	Juhayna products are ready-to-consume; no further processing required.	NA	Not relevant, explanation provided
11	**Use of sold products**	Emissions from product use (e.g., refrigeration) are dependent on consumer behavior and external appliance efficiency, over which Juhayna has no control. The majority of our products are shelf-stable, making this category immaterial to our total GHG footprint.	NA	Not relevant, explanation provided
12	**End of life treatment of sold products**	Emissions of end of life treatment processes of Juhayna's sold products.	33,241	Relevant, calculated
13	**Downstream leased assets**	Juhayna does not have any downstream leased assets to any third parties..	NA	Not relevant, explanation provided
14	**Franchises**	Not relevant to Juhayna's business model; hence it has been excluded.	NA	Not relevant, explanation provided
15	**Investments**	Not relevant to Juhayna's business model; hence it has been excluded.	NA	Not relevant, explanation provided

QUALITY ASSURANCE STATEMENT

To the **Juhayna** Board of Directors',

We have been appointed by **Juhayna** to conduct carbon footprint calculations pertaining to **Juhayna's** operational activities for the period **1st of January 2024** to the **31st of December** 2024. The scope extends to Juhayna's two owned farms, as well as the local farms from which Juhayna procures its milk supply. Furthermore, it encompasses the operations of Juhayna's five factories, along with its 29 distribution centers and headquarters building.

AUDITORS' RESPONSIBILITY

In conducting the carbon footprint calculations and assurance, we have adopted the Greenhouse Gas Protocol Guidelines, IPCC Guidelines for Greenhouse Gas Inventories, the global footprint network, and **ISO 14064-1:2018** Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.

100% of emissions by scope are verified as follows:

- Scope 1 (Direct Emissions) : **96,802 mtCO$_2$e**
- Scope 2 (Indirect Emissions): **31,340 mtCO$_2$e**
- Scope 3 (Indirect Emissions): **1,033,508 mtCO$_2$e**
  - Category 1: **945,592 mtCO$_2$e**
  - Category 2: **2,172 mtCO$_2$e**
  - Category 3: **17,370 mtCO$_2$e**
  - Category 4: **13,752 mtCO$_2$e**
  - Category 5: **1,063 mtCO$_2$e**
  - Category 6: **48 mtCO$_2$e**
  - Category 7: **19,909 mtCO$_2$e**
  - Category 12: **33,241 mtCO$_2$e**

It is our responsibility to express a conclusion about the quality and completeness of the primary data collected/ provided by Juhayna. We have performed the following quality assurance/ quality control tasks:

- Several rounds of data requests were performed whenever the received information was not clear;
- All data presented in this report were provided by the reporting entity and revised and completed by our technical teams;
- For data outliers, meetings were held to investigate the accuracy of the data and new data was provided when requested;
- Any gaps, exclusions and/or assumptions have been clearly stated in the report.

CONCLUSION

Based on the aforementioned procedures, nothing has come to our attention that would cause us to believe that **Juhayna's** raw data used in the carbon footprint calculations have not been thoroughly collected, verified, and truly represent **Juhayna's** resource consumption in the reporting period related to all categories/aspects identified in this report. We do not assume and will not accept responsibility to anyone other than **Juhayna** for the provided assurance and conclusion

Dr. Abdelhamid Beshara,
Founder and Chief Executive Officer

MASADER, ENVIRONMENTAL & ENERGY SERVICES S.A.E CAIRO,

November 2025

ABOUT MASADER

Masader is an innovative interdisciplinary consulting, design and engineering sustainability firm based in Cairo, aiming at leveraging positive impact across the MENA region and globally. It specializes in Resource Efficiency, Sustainable Management of Natural Resources and Integrated Sustainability Solutions. Since 2015, Masader has led 100+ projects across the areas of energy, environment, climate change & carbon footprint, circular economy, green building (LEED), as well as corporate sustainability strategies, reporting and certification.

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