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GREENHOUSE GAS REPORT 2024

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Grupo Rotoplas S.A.B. DE C.V.

Executive Summary

Grupo Rotoplas S.A.B. de C.V. (hereinafter referred to as Rotoplas) is a company with extensive experience in the design and commercialization of solutions for water storage, conveyance, purification, and treatment. It operates under a corporate strategy that integrates principles of sustainability and environmental responsibility.

Rotoplas prepared its Greenhouse Gas (GHG) emissions inventory for fiscal year 2024, estimating scopes 1, 2, and 3 emissions in accordance with the GHG Protocol standard.

In 2024, Rotoplas reported scope 1 and 2 emissions totaling 35,671 tons of carbon dioxide equivalent (tCO_2e), and a carbon intensity of 0.38 tCO_2e per ton of resin and metal processed (t.RM. P.).

Both indicators reflect reductions of 11% in total emissions and 12% in carbon intensity compared to the year 2023 (see figures 1 and 2).

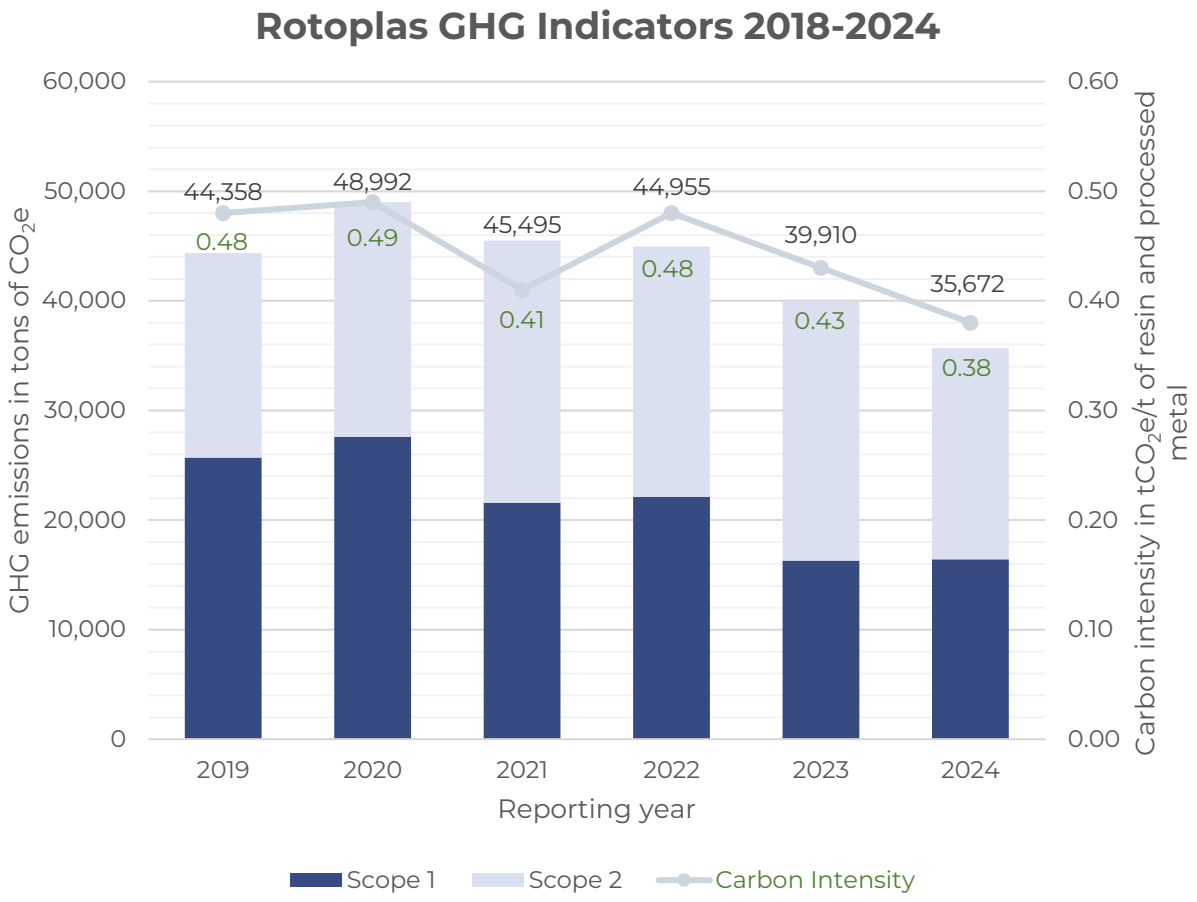

Figure 1. Rotoplas Scope 1 and 2 GHG Indicators 2018-2024

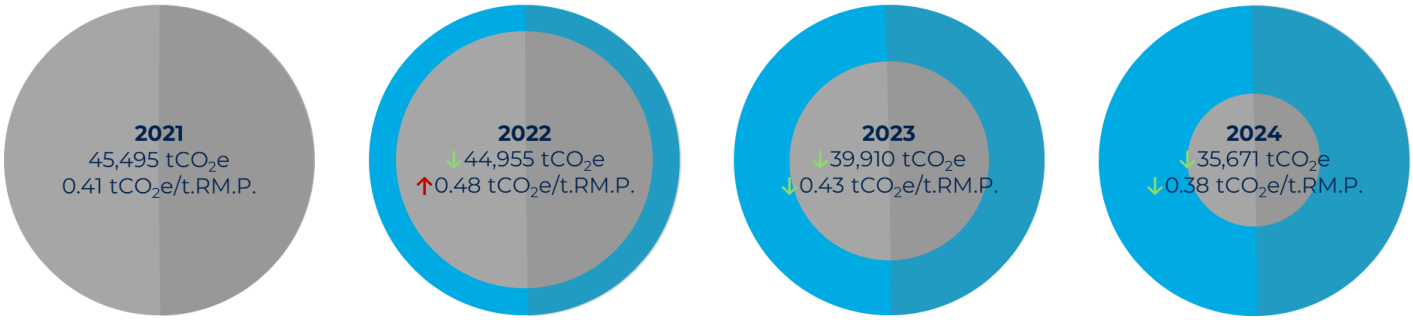

Figure 2. Rotoplas scope 1 and 2 emissions over time

Rotoplas' scope 3 emissions were approximately 277,120 tCO_2e, as detailed in Table 1, which presents the breakdown by scope 3 category.

Scope 3 categories		Emissions in tCO_2e	% contribution
Upstream	Category 1. Goods and products acquired	57,279	21%
	Category 2. Capital goods	4,644	2%
	Category 3. Fuel and energy-related activities	2,666	1%
	Category 4. Upstream transportation and distribution	24,998	9%
	Category 5. Waste generated in operations	359	<1%
	Category 6. Business travel	567	<1%
	Category 7. Employee commuting	4,997	2%
	Category 8. Upstream leased assets	Not applicable	0%
Downstream	Category 9. Downstream transportation and distribution	Not applicable	0%
	Category 10. Processing of sold products	Not applicable	0%
	Category 11. Use of sold products	172,807	62%
	Category 12. End-of-life treatment of sold products	8,254	3%
	Category 13. Downstream leased assets	Not applicable	0%
	Category 14. Franchises	Not applicable	0%
	Category 15. Investments	548	<1%
Total		**277,120**	**100%**

Table 1. Scope 3 emissions by category

Scope 3 emissions decreased by 25% compared to 2022, primarily due to improvements in the calculation methodology for Category 11, which incorporated enhanced traceability of thermotank units sold and more accurate usage patterns.

Category 11 remains the largest contributor to scope 3 emissions, accounting for 62% of the total.

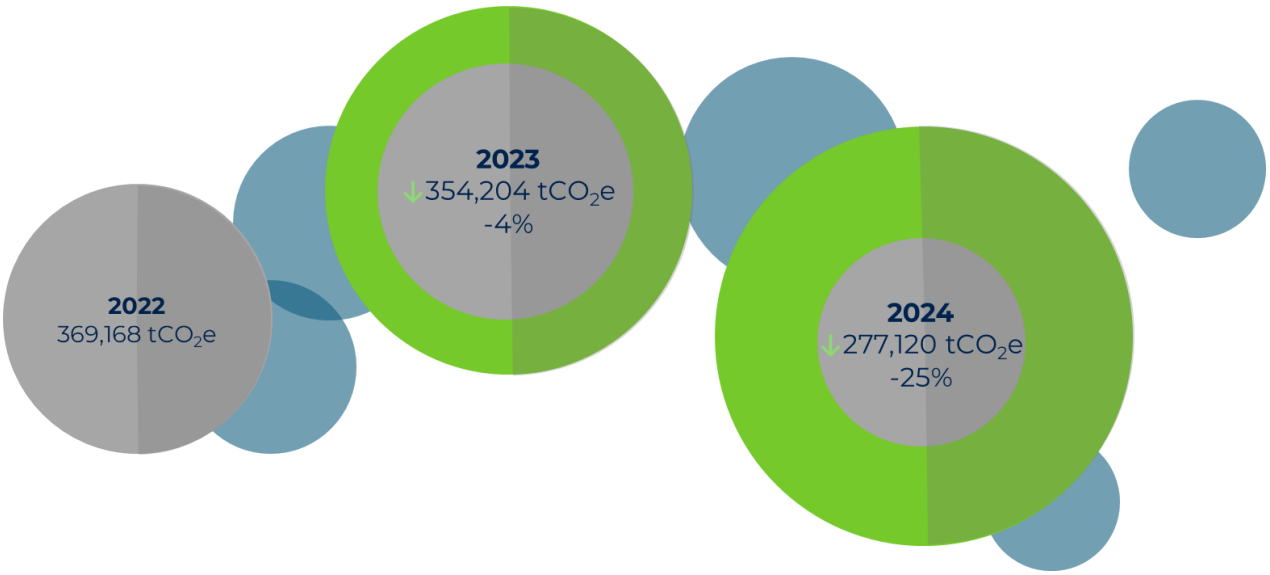

Figure 3. Rotoplas scope 3 emissions over time

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Glossary

Climate Action: Any policy, measure, or program aimed at reducing greenhouse gas emissions, building resilience to climate change, or supporting and financing those objectives (Acción Climática Latinoamericana, 2016).

Scope 1: Also referred to as direct emissions, these are emissions from sources that are owned or controlled by the reporting organization (GHG Protocol, 2024).

Scope 2: Also referred to as indirect emissions, these are emissions generated from the production of electricity, heat, steam, or cooling purchased by a company to operate its activities (GHG Protocol, 2024).

Scope 3: Scope 3 emissions include all other indirect greenhouse gas emissions that occur in an organization's value chain. These emissions result from the organization's activities but occur from sources not owned or directly controlled by it (GHG Protocol, 2024).

Climate Change: Any significant change in the Earth's climate system that persists for decades or longer. It may occur due to natural causes or because of human activity and is the most evident manifestation of climate change (INECC, 2018).

Activity Data: Data referring to fuel consumption, input quantities for production, product quantities, electricity consumption, etc. (SEMARNAT, 2021).

Carbon Intensity: The amount of greenhouse gas emissions expressed in carbon dioxide equivalent, per unit of economic activity or production (National Grid, 2022).

Greenhouse Gas Inventory: A quantified listing of greenhouse gas emissions and the corresponding emission sources associated with a specific organization (WRI & WBCSD, 2005).

Pre-verification: An independent assessment of the reliability (considering integrity and accuracy) of a greenhouse gas inventory (WRI & WBCSD, 2005).

Materiality Threshold: A concept used in the verification process, typically to determine whether an error or omission constitutes a material discrepancy. It should not be considered insignificant for the definition of a complete inventory (WRI & WBCSD, 2005).

Significance Threshold: A qualitative or quantitative criterion used to define a significant structural change in a greenhouse gas inventory (WRI & WBCSD, 2005).

Well to tank (WTT): The analysis of emissions, energy use, and other environmental impacts occurring from the extraction (well) or primary energy source to the vehicle or equipment fuel tank, excluding the actual use of the fuel (Wang, 2004).

Acronyms

C&GHG: Compounds and greenhouse gases.
CDP: Carbon Disclosure Project.
DCs: Logistics Distribution Center.
DEFRA: Department for Environment, Food and Rural Affairs, UK.
EEIO: Environmentally extended input-output.
GHG: Greenhouse Gases.
INECC: Instituto Nacional de Ecología y Cambio Climático.
IPCC: Intergovernmental Panel on Climate Change.
MS: Mobile sources.
RENE: Registro Nacional de Emisiones.
SBTi: Science Based Targets Initiative.
SEMARNAT: Secretaría de Medio Ambiente y Recursos Naturales.
SS: Stationary sources.
TCFD: Task Force on Climate-related Financial Disclosures

USEPA: Environmental Protection Agency, United States.

WBCSD: World Business Council for Sustainable Development
WRI: World Resources Institute
WTT: Well to Tank

Units

$MXN: Mexican pesos.
$USD: US dollars.
CH_4: Methane.
CO: Carbon monoxide.
HFCs: Hydrofluorocarbons.
Kg: Kilogram.
l: Liters.
m^3: Cubic meters.
N_2O: Nitrous oxide.
PFCs: Perfluorocarbons.
SF_6: Sulphur hexafluoride.
SP: Suspended particles.
t: Ton.
tCO_2: Ton of carbon dioxide.
tCO_2e: Ton of carbon dioxide equivalent.
TOC: Total organic carbon.
VOC: Volatile organic compounds.

Introduction

The development of corporate greenhouse gas (GHG) inventories is a strategic tool for environmental management, climate risk identification, and strengthening sustainability-related decision-making. In this context, Grupo Rotoplas S.A.B. de C.V., a company with over four decades of experience in the water sector and presence across Latin America and the United States, has maintained an ongoing commitment to the measurement, monitoring, and reporting of its emissions.

During the reporting year 2024, Rotoplas developed its GHG emissions inventory for scopes 1 and 2, in accordance with the GHG Protocol Corporate Accounting and Reporting Standard (WRI & WBCSD, 2005). In line with its policy of continuous improvement and transparency, the company engaged e3 Consultora to carry out a limited technical review of these scopes, with the objective of assessing data traceability, methodological consistency, and the integrity of the reported results.

Figure 4. Rotoplas, Mexico's leading water storage tank

As a complementary effort, e3 Consultora was responsible for estimating the emissions corresponding to scope 3, in accordance with the methodological framework established by the Corporate Value Chain (Scope 3) Accounting and Reporting Standard (WRI & WBCSD, 2011), considering the applicable categories based on the organization's activities, products, and services.

This document presents the consolidated results of both processes: the technical review of scopes 1 and 2, and the development of the scope 3 emissions inventory. It includes the analysis of information sources, quantification criteria, results by type of emission, and a set of

recommendations aimed at strengthening Rotoplas' GHG management strategy.

Project objective

The objective of this report is to document the results of Rotoplas' greenhouse gas (GHG) emissions inventory for the reporting year 2024, in accordance with the guidelines established by the GHG Protocol Corporate Accounting and Reporting Standard.

The inventory includes the quantification of direct emissions (scope 1), indirect emissions from electricity consumption (scope 2), and other indirect emissions along the value chain (scope 3), to provide a robust technical foundation for strategic decision-making, climate target monitoring, and the identification of reduction opportunities.

The analysis covers Rotoplas' relevant operations across its various geographic locations and integrates operational data provided by the company, recognized emission factors, and criteria for traceability, completeness, and methodological consistency. Emphasis is placed on scope 3, due to its significance in the organization's emissions profile and its connection to products, suppliers, and logistics processes.

General context and scopes considered in the inventory

The structure of the inventory is based on the need to capture the operational and geographic complexity of Rotoplas, as well as its connection to an extensive value chain. In this context, the analysis was carried out following a comprehensive coverage approach, incorporating the three scopes defined by the GHG Protocol (see Figure 5):

- Scope 1, which includes direct emissions generated from sources controlled by the organization.
- Scope 2, which accounts for indirect emissions associated with the consumption of purchased electricity.
- Scope 3, which comprises significant indirect upstream and downstream emissions related to purchased goods and services, logistics processes, product use, end-of-life treatment, among others.

The inclusion of all three scopes not only aligns with international standards, but also reflects a strategic sustainability vision, allowing the organization to understand and manage its climate impacts beyond direct operations.

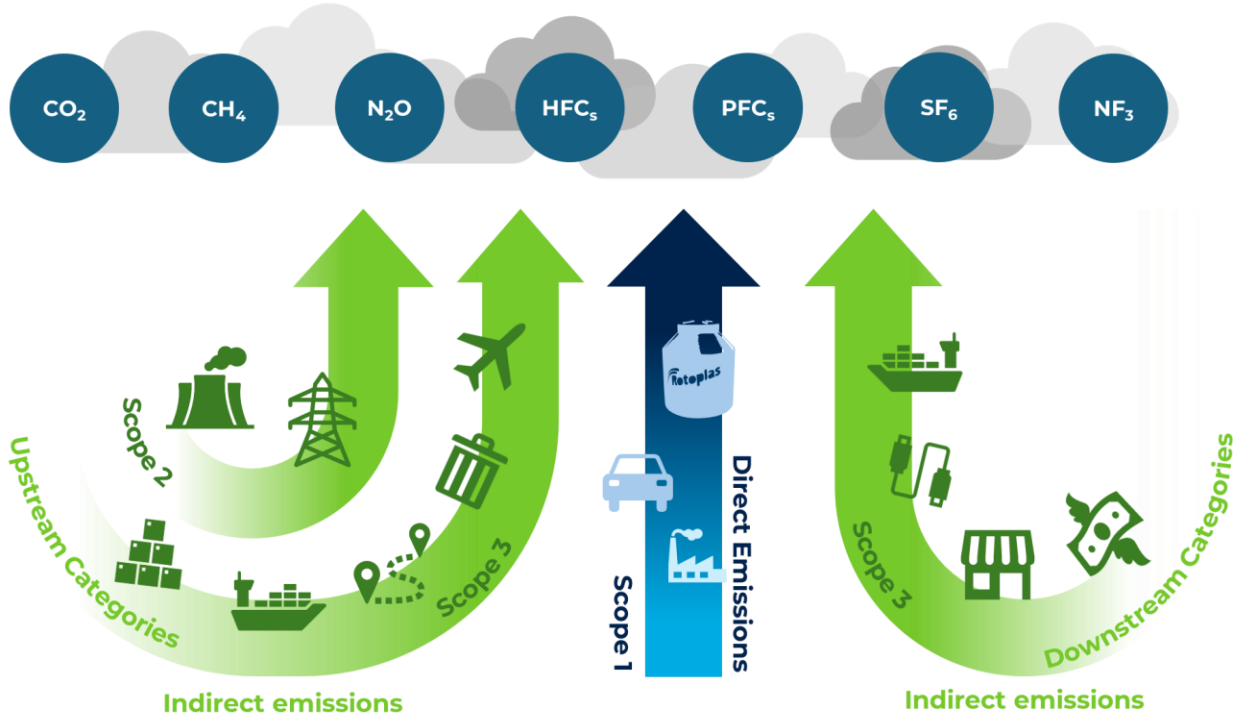


Figure 5. GHG emissions scopes

Methodological criteria and frameworks used

The development of the inventory was based on international methodological frameworks, ensuring comparability, consistency and transparency of the results. The main references used were:

- *Scope 1 & 2 GHG Inventory Guidance*
- *GHG Protocol Corporate Accounting and Reporting Standard*
- *Corporate Value Chain (Scope 3) Accounting and Reporting Standard*
- *IPCC Supplementary Technical Papers, National and International Emission Factor Bases (such as IEA, DEFRA, USEPA).*

Calculations were based on primary data from Rotoplas, supplemented with reliable secondary information in cases where direct traceability was unavailable. Updated emission factors were applied, and methodological assumptions and inclusion/exclusion criteria by category were documented.

Control approach and operational boundaries

To define the boundaries of the inventory, the operational control approach was adopted, as established by the GHG Protocol. Under this approach, the inventory includes operations where Rotoplas has the authority to implement

environmental policies and control operational flows, encompassing production facilities, administrative offices, distribution centers, and proprietary stores.

Operational boundaries were determined based on the relevance of each emission source, prioritizing those with the highest potential impact on the corporate carbon footprint. For scope 3, ten categories proposed by the standard were evaluated and selected according to their relevance to Rotoplas' business model.

This methodology ensures that the inventory accurately reflects the emissions under the organization's responsibility and serves as a foundation for strategic decision-making in the decarbonization of its operations and value chain.

Rotoplas operates through various business models focused on the manufacture and commercialization of water storage, conveyance, and purification products, as well as irrigation and water treatment services for various industries (see Figure 6).

Figure 6. Rotoplas Business Models

Analysis period and base year

This greenhouse gas (GHG) emissions inventory corresponds to the operational period from January 1 to December 31, 2024, and includes all relevant emission

sources under the operational control approach defined by Rotoplas for its operations across Latin America and the United States.

The year 2022 has been established as the base year for comparison purposes, as it represents the first reporting cycle with a consolidated methodological structure and sufficient data traceability. Since then, the inventory has undergone a progressive process of technical enhancement, incorporating improvements in data quality, source inclusion criteria, and depth of analysis—particularly with respect to scope 3 emissions.

This continuous refinement has enabled a more accurate representation of the organization's emissions profile, strengthening the ability to evaluate year-over-year variations more robustly and to support strategic decision-making based on evidence.

The use of a common base year not only facilitates the monitoring of climate targets but also enables seamless integration with international frameworks such as the Science Based Targets initiative (SBTi), CDP, and TCFD, contributing to Rotoplas' positioning as a company committed to the responsible management of its carbon footprint.

Rotoplas GHG emissions report – Reporting year 2024

During the reporting year 2024, Rotoplas estimated a total of 35,671.78 tons of carbon dioxide equivalent (tCO_2e) corresponding to its direct emissions (scope 1) and indirect emissions from electricity consumption (scope 2). Additionally, indirect emissions associated with its value chain (scope 3) were calculated at 277,119.60 tCO_2e, in accordance with the guidelines set forth by the GHG Protocol.

Table 2 presents the general parameters of the inventory, including the methodology used, the period analyzed, the consolidation approach, and the emissions reported for each scope. All data was collected under the operational control approach, covering all operations where Rotoplas exercises direct environmental management.

#	Description	Results	
1	Name or corporate name	Grupo Rotoplas S.A.B. de C.V.	
2	Verification year	2024	
2.1	Reporting period covered	01/01/2024 – 12/31/2024	
3	Estimation methodology	ISO 140064-1:2015	( )
		ISO 140064-1:2018	( )
		RENE	( )
		GHG Protocol	(**X**)

#	Description	Results		
4	Consolidation approach	Equity interest		( )
		Financial control		( )
		Operational control		(**X**)
4	Scope 1 emissions identification	Yes (**X**)	No ( )	
4.1	Total Scope 1 Emissions Reported	16,422.96	tCO_2e	
5	Scope 2 emissions identification	Yes (**X**)	No ( )	
5.1	Total Scope 2 Emissions Reported	19,248.81	tCO_2e	
6	Scope 3 emissions identification	Yes (**X**)	No ( )	
6.1	Total Scope 3 Emissions Reported	277,119.60	tCO_2e	
7	GHG Inventory Exclusions	Yes ( )	No (**X**)	
		Facilities		( )
		Operations		( )
		Emissions		( )
8	Direct CO_2 emissions from biogenic combustion (tCO_2)	*Not applicable*		

Table 2. General data from the Rotoplas 2024 GHG emissions report

Regarding the gas composition, table 3 presents the breakdown of emissions by type of greenhouse gas for each of the three scopes.

Emissions reporting year 2024							
Emissions	**Total (tCO_2e)**	**CO_2 (t)**	**CH_4 (t)**	**N_2O (t)**	**HFCs (t)**	**PFCs (t)**	**SF_6 (t)**
Scope 1	16,422.96	16,393.85	0.70	0.03	0.00	0.00	0.00
Scope 2	19,248.81	0.00	0.00	0.00	0.00	0.00	0.00
Scope 3	277,119.60	0.00	0.00	0.00	0.00	0.00	0.00

Table 3. 2024 Rotoplas Greenhouse Gas Emissions Data

Table 4 documents the values corresponding to the base year 2022, which was selected as it represents the first reporting cycle with a consolidated methodological structure and sufficient data traceability. Since then, the inventory has undergone a continuous process of technical enhancement, incorporating the best practices in data collection, emission factor selection, and source analysis. This refinement has significantly improved the quality of the information and the representativeness of the corporate emissions profile.

2022 Base Year Emissions							
Selected Base Year				2022			
Emissions recalculation policy				Yes (**X**)	No ( )		
Policy Description			Provided there is better data quality				
Significant update change				Greater than 10%			
Base year emissions	**Total (tCO_2e)**	**CO_2 (t)**	**CH_4 (t)**	**N_2O (t)**	**HFCs (t)**	**PFCs (t)**	**SF_6 (t)**
Scope 1	22,331.92	22,048.58	0.03	0.01	0.00	0.00	0.00
Scope 2	22,693.74	0.00	0.00	0.00	0.00	0.00	0.00
Scope 3	369,168.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 4. 2022 Base Year GHG Data

Figure 7 presents the comparison of Rotoplas' greenhouse gas (GHG) emissions between the base year 2022 and the reporting year 2024, broken down by scope. The results show a reduction across all three scopes, reflecting the effects of operational improvements, methodological updates, and enhanced data traceability.

Scope 1 emissions decreased from 22,332 tCO_2e to 16,423 tCO_2e, representing a 26% reduction. In the case of Scope 2, emissions fell from 22,694 tCO_2e to 19,249 tCO_2e, a 15% decrease. Scope 3 emissions, which account for the largest share of the inventory, were reduced from 369,168 tCO_2e in 2022 to 277,120 tCO_2e in 2024, equivalent to a 25% reduction.

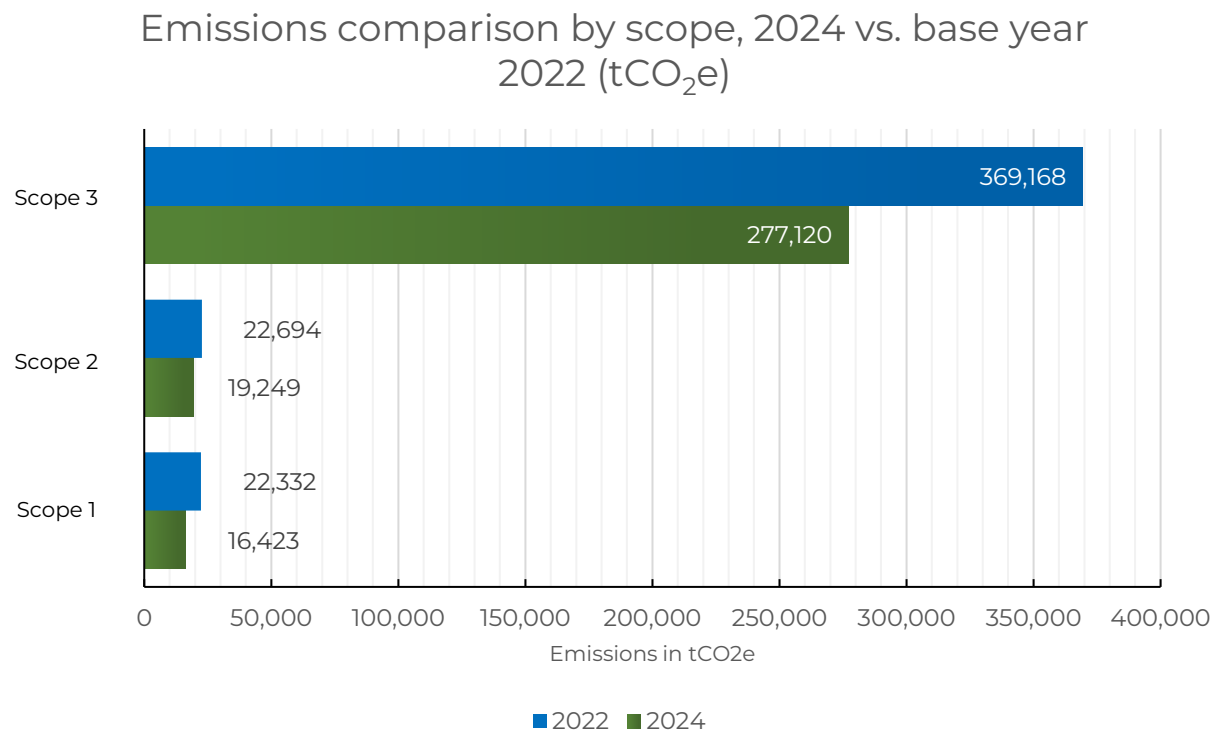


Figure 7. Comparison of emissions in the reporting year vs. base year

Chapter 1. Results of the Scope 1 and 2 GHG Emissions Inventory

This chapter presents the results obtained from the pre-verification of Rotoplas' scope 1 and 2 emissions. The emissions reported after the recalculation of scopes 1 and 2 amounted to 35,672 tCO_2e (see Figure 8).

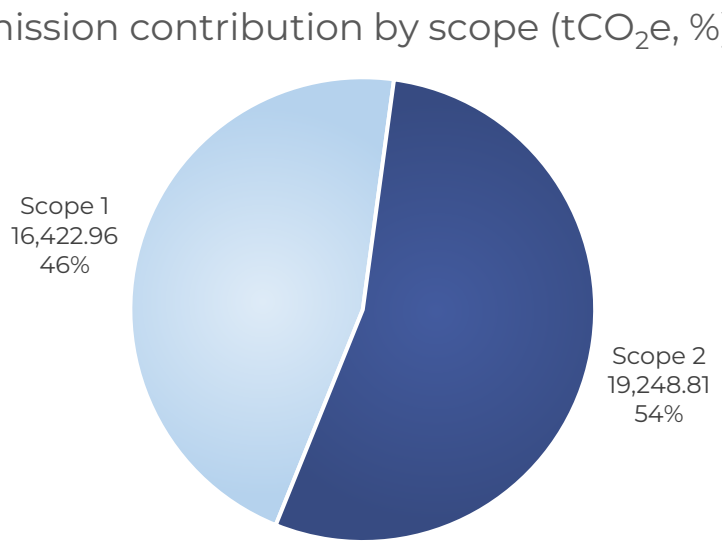


Figure 8. Rotoplas Scope 1 & 2 Emissions 2024

Verification entity information

As part of this process, e3 Consultora served as the technical party responsible for reviewing the inventory. Below are the general details associated with the verification.

Data from the third-party verification organization	
Date of verification	03/21/2025
Verifier	e3 Consultora Soluciones Sostenibles; RYM Servicios Ambientales Internacionales
Contact emails	david.parra@e3consultora.com.mx gerardo.rios@e3consultora.com.mx sergio.huerta@e3consultora.com.mx luis.fragoso@e3consultora.com.mx
Phone number	+52 2701 7699
Address	Av. Revolución 1267 floor 19, Colonia Los Alpes Alcaldía Álvaro Obregón, 01010 CDMX
Página web	https://www.e3consultora.com.mx/

Table 5. General data of the third-party verification organization

Verification criteria and standards

The analysis and reproduction of the emissions reported by Rotoplas were conducted based on the methodological criteria adopted by the organization for the development of its inventory. These criteria are grounded in the following methodological frameworks:

- *The GHG Protocol Corporate Accounting and Reporting Standard.*
- *Corporate Value Chain (Scope 3) Accounting and Reporting Standard.*
- *Acuerdo que establece las particularidades técnicas y las fórmulas para la aplicación de metodologías para el cálculo de emisiones de gases o compuestos de efecto invernadero.*
- *Criterios para la verificación de los reportes de Emisiones de Compuestos y Gases de Efecto Invernadero en el marco del Registro Nacional de Emisiones.*

Emission factors, calorific values, and global warming potential

The reproduction of the emissions estimates was based on the technical references and databases used by Rotoplas in the development of its inventory. These include:

- *List of fuels and their calorific values (CONUEE) to be used for the 2024 reporting to the Registro Nacional de Emisiones (RENE).*
- *National electricity emission factors from various geographies (Annex 2).*
- *Acuerdo que establece gases o compuestos de efecto invernadero que se agrupan para efectos de reporte de emisiones, así como sus potenciales de calentamiento.*
- *Emission factors sourced from the GHG Protocol and the World Resources Institute (WRI) databases, based on the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines.*

Verification scope

The technical pre-verification was carried out based on the principles established by the GHG Protocol, considering exclusively the greenhouse gases included in the reported inventory. The analysis covered both direct emissions (scope 1) and indirect emissions from electricity consumption (scope 2), in accordance with the operational sources and activities of Rotoplas.

For the purposes of this exercise, a materiality threshold of 5% was defined, in line with the verification criteria under the RENE framework. This threshold was used as a basis to focus the review and reproduction of emission estimates. The types of emissions and gases included are detailed below (Table 6):

Pre-verification scopes						
Emissions type	Direct emissions from stationary combustion sources					
	Direct emissions from mobile source operations					
	Direct emissions from industrial processes or services					
	Indirect emissions from electricity consumption					
Greenhouse gas type	CO_2	CH_4	N_2O	HFCs	PFCs	SF_6
Allowable materiality threshold	5%					

Table 6. General data on the scope of the pre-verification

The evaluation included a document review, verification of the calculation tools used, and the independent reproduction of emission estimates. The main documents reviewed were:

- 2024 Environmental Indicators Summary.
- BI_ESG_2024.
- Fuel invoices and electricity consumption bills.

The information was provided by the Rotoplas sustainability team, whose contact details are presented below (table 7):

Responsible	Position	Contact
Raúl Maganda Méndez	*ESG Environmental Head*	*rmaganda@rotoplas.com*
Guillermo Mijail Punzo Suazo	*Sustainability Manager*	*gpunzo@rotoplas.com*

Table 7. Rotoplas contact information

Control Approach

For the reporting year 2024, the operational control approach was adopted, including facilities over which Rotoplas exercises direct management in terms of operations and environmental compliance.

The inventory covers operations in eight countries, encompassing various types of facilities, including manufacturing plants, distribution centers, corporate offices, and retail outlets. Table 8 presents the full list of facilities included within the coverage of Rotoplas' business units in 2024.

Country	Installation type	Installation name
México	Facility	Anáhuac

Country	Installation type	Installation name
		Golfo
		Guadalajara
		Ixtapaluca
		León Rotomoldeo – Soplo
		León Rotopinsa
		Lerma
		Mérida
		Mochis
		Monterrey Compuestos
		Monterrey Rotomoldeo
		Tuxtla
	Corporate	RSA
		Virreyes
Argentina	Facility	Loma Hermosa
		Pilar
		Pilarica
		San Martín
Nicaragua	Facility	Nicaragua
Perú	Facility	Perú
Honduras	CEDIS	CEDIS Honduras
Guatemala	CEDIS	CEDIS Guatemala
Costa Rica	CEDIS	CEDIS Costa Rica
Estados Unidos	Stores	Tiendas Estados Unidos

Table 7. Facilities that make up the Rotoplas GHG emissions estimation and reporting

Analysis period

This report documents the results of the limited technical pre-verification of Rotoplas' greenhouse gas emissions inventory, corresponding to operations carried out during the reporting year 2024, covering the period from January 1 to December 31.

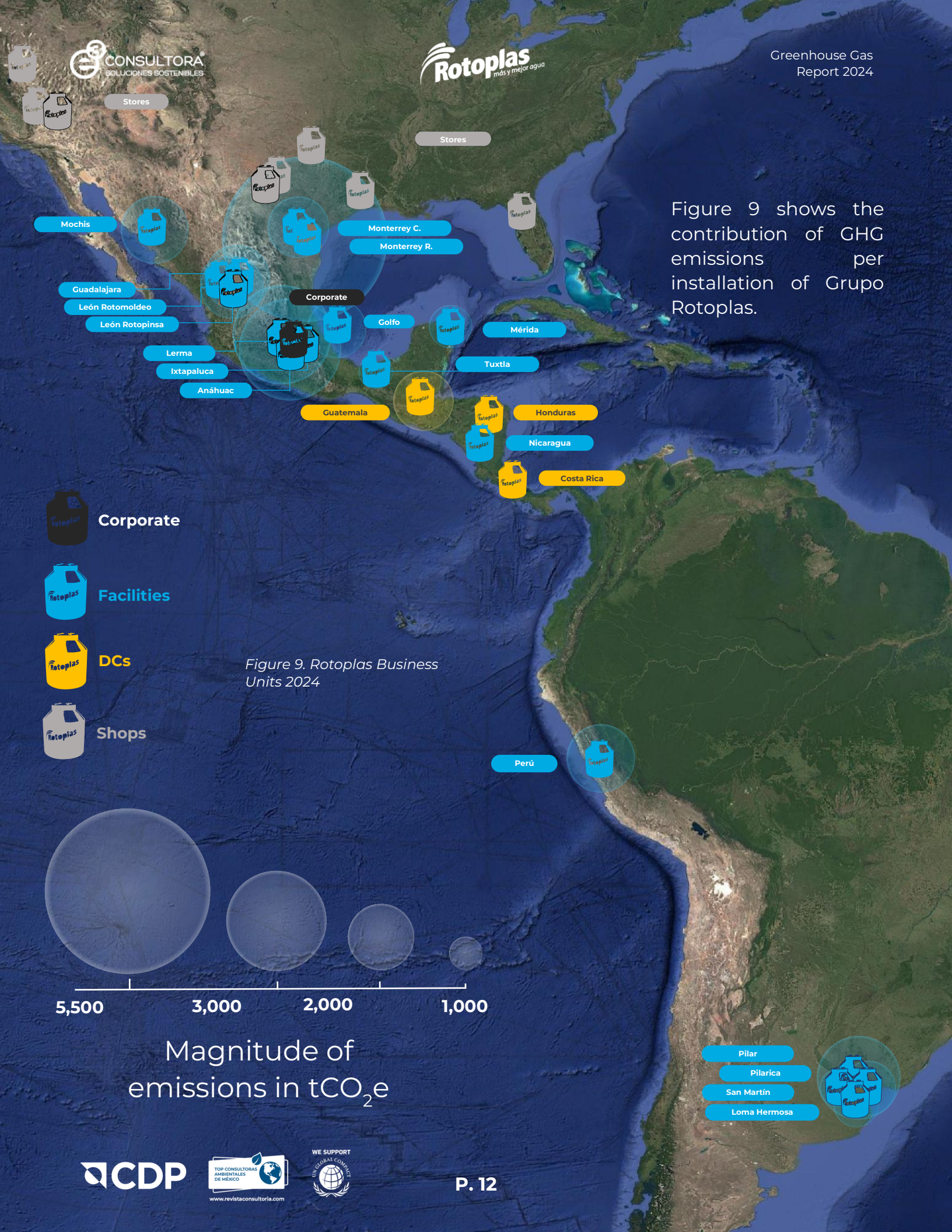


Figure 9 shows the contribution of GHG emissions per installation of Grupo Rotoplas.

Figure 9. Rotoplas Business Units 2024

2024 GHG emissions calculation – Scopes 1 and 2

As part of the pre-verification process, the emissions calculations of Rotoplas' 2024 inventory were evaluated, with particular attention given to sources that exceeded the 5% materiality threshold. For these sources, the same emission factors, calorific values, and global warming potentials defined by the organization were applied.

The validation process included remote sessions with Rotoplas' sustainability team, who provided details on the allocation of emissions by facility and addressed comments related to input data, conversion methods, and exclusion criteria. This ensured the correct identification and correspondence between sources, locations, and reported scopes.

Table 9 presents the breakdown of emissions by country and scope, along with their relative contribution to the corporate inventory. Figure 10 illustrates the graphical representation of emissions by country contribution.

Country	Scope 1 emissions (tCO_2e)	Scope 2 emissions (tCO_2e)	Total	Percentage contribution
Mexico	9,528.34	15,127.19	24,655.53	69%
Peru	1,832.72	215.32	2,048.04	6%
Argentina	2,895.85	3,791.27	6,687.12	19%
Honduras	0.00	4.65	4.65	<1%
Costa Rica	0.00	0.72	0.72	<1%
Nicaragua	383.86	0.00	383.86	1%
United States	0.00	90.62	90.62	<1%
Guatemala	1,772.44	28.75	1,801.21	5%
Total	**16,413.21**	**19,258.53**	**35,671.74**	**100%**

Table 8. GHG emissions reported by Rotoplas

In addition, a documentary review was carried out for the input data supporting the most significant emission sources. A representative sample equivalent to 80% of all fuel invoices and electricity consumption receipts was selected, focusing on the sources with the highest impact. This review made it possible to verify the traceability of the data used in the estimations, as well as the consistency between recorded values and the calculations performed.

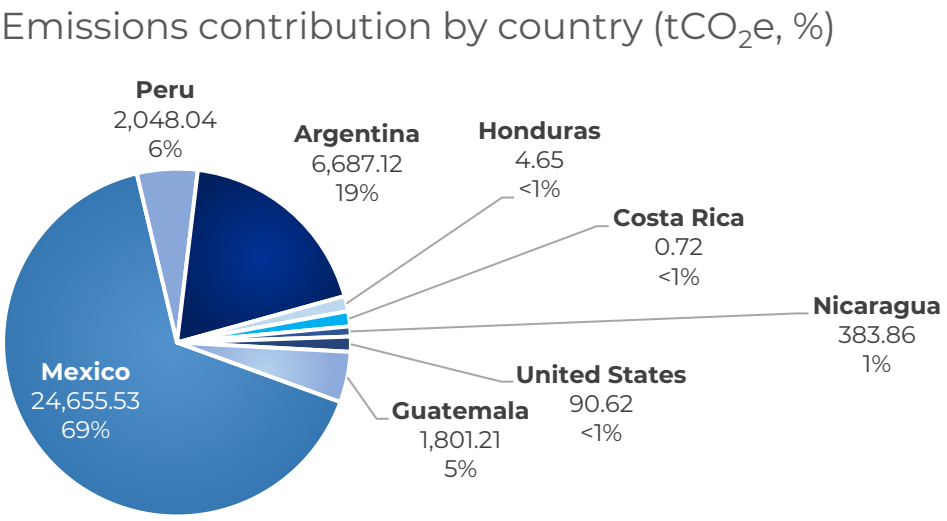


Figure 10. Emissions contribution by country

2024 Pre-verification results – Scopes 1 and 2

As part of the technical analysis, the emissions reported by Rotoplas were compared with the results obtained through the independent review conducted by e3 Consultora. The objective was to identify potential differences by country and by scope, as well as to assess their relevance in terms of materiality.

Table 10 presents the results of this comparison, highlighting the differences between the datasets.

Country / Scope	Reported emissions in tCO_2e		Materiality |%|
	Grupo Rotoplas	e3 Consultora	
Mexico Scope 1	9,528.33	9,540.45	0.13
Mexico Scope 2	15,127.19	15,127.19	0.00
Argentina Scope 1	2,895.85	2,895.83	0.00
Argentina Scope 2	3,791.26	3,781.55	0.26
Peru Scope 1	1,832.71	1,830.37	0.13
Peru Scope 2	215.32	215.32	0.00
Guatemala Scope 1	1,772.44	1,772.45	0.00
Guatemala Scope 2	28.75	28.76	0.00
Honduras Scope 1	--	--	0.00
Honduras Scope 2	4.65	4.65	0.00
Costa Rica Scope 1	--	--	0.00
Costa Rica Scope 2	0.72	0.72	0.00
Nicaragua Scope 1	383.85	383.86	0.00

Country / Scope	Reported emissions in tCO_2e		Materiality |%|
	Grupo Rotoplas	e3 Consultora	
Nicaragua Scope 2	--	--	0.00
United States Scope 1	--	--	0.00
United States Scope 2	90.62	90.62	0.00
Total	**35,671.74**	**35,671.78**	**0.001**

Table 10. Materiality obtained by country and scope

The differences identified between the values reported by Rotoplas and those obtained by e3 Consultora were mostly minimal and attributable to rounding adjustments or marginal variations in the input data used.

The discrepancy between both estimates was 0.001%, a value that falls below the technical significance threshold defined for this exercise. Table 11 presents the consolidated summary of emissions by organization and scope type.

Company	Scope 1 emissions (tCO_2e)	Scope 2 emissions (tCO_2e)	Total Scope 1 & 2 Emissions (tCO_2e)
Grupo Rotoplas	16,413.21	19,258.53	35,671.74
e3 Consultora	16,422.96	19,248.81	35,671.78
		Materiality |%|	**0.001**

Table 9. Total materiality of the GHG pre-verification 2024

The following table shows the breakdown of greenhouse gas emissions estimated by e3 Consultora, by gas type.

2024 Rotoplas Emissions, recalculated by e3 Consultora							
Emissions	Total (tCO_2e)	CO_2 (t)	CH_4 (t)	N_2O (t)	HFCs (t)	PFCs (t)	SF_6 (t)
Scope 1	16,422.96	16,393.85	0.71	0.04	0.00	0.00	0.00
Scope 2	19,248.81	0.00	0.00	0.00	0.00	0.00	0.00

Table 10. GHG emissions data, recalculation e3 Consultora

Scope 1 emissions accounted for 46% of Rotoplas' total emissions, while Scope 2 contributed 54%. Within Scope 1, stationary sources represented 97% of emissions, with the remaining percentage attributed to mobile sources. In the case of Scope 2, location-based emissions made up 96% of the total, while the remaining 4% corresponded to market-based emissions. Figure 11 illustrates the contribution by activity.

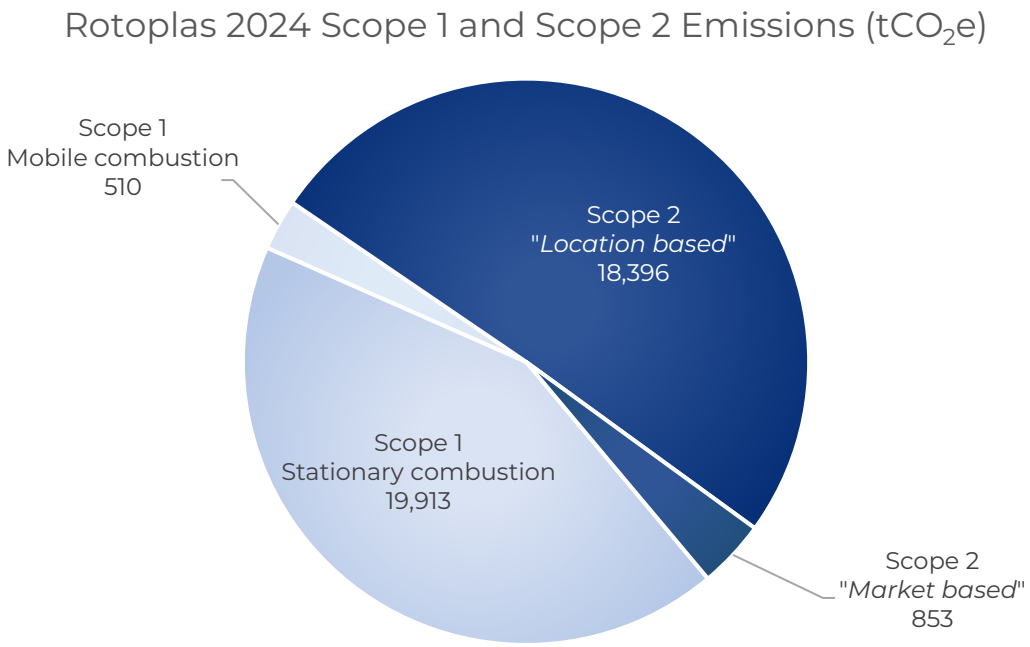


Figure 10. Rotoplas scope 1 and 2 emissions by activity

Limited verification of air pollutants – 2024

Rotoplas estimated the quantity of air pollutants emitted to the atmosphere from the combustion of fossil fuels. e3 Consultora conducted a limited technical pre-verification of both the estimation process and the results obtained. Table 12 below presents the emissions of air pollutants by country where fossil fuel consumption was reported.

Criterion pollutant	Mexico	Central America	Argentina	Peru	Totals
tCO	3.48	1.57	0.77	0.49	**6.30**
tNOx	11.38	4.70	2.77	1.75	**20.61**
tSOx	0.07	0.03	0.02	0.01	**0.12**
tPM10	0.07	0.03	0.02	0.01	**0.12**
tPM2.5	0.03	0.01	0.01	0.005	**0.06**
tCOV	0.67	0.26	0.15	0.10	**1.18**

Table 11. Air pollutants emissions 2024

The review of the criteria pollutant estimations did not reveal any material discrepancies that require reporting. The calculation details for the air pollutants can be found in Annex 3.

Chapter 2. Results of the Scope 3 GHG emissions inventory

This chapter presents the results of the estimation of indirect greenhouse gas (GHG) emissions associated with scope 3, in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. For the reporting year 2024, ten applicable categories were evaluated based on Rotoplas' business model and operational activities.

The total estimated scope 3 emissions amounted to 277,120 tCO_2e, distributed across both upstream and downstream sources within the value chain. Figure 12 illustrates the relative contribution of each category, highlighting the significance of those associated with the use of sold products and the procurement of goods.

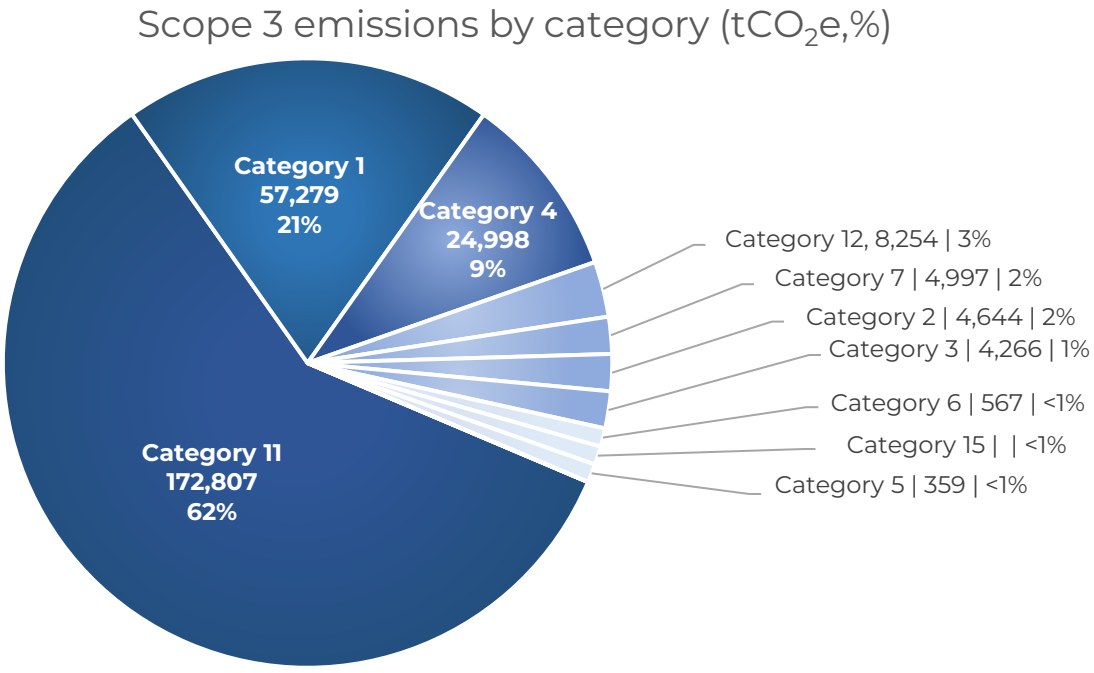


Figure 11. Contribution of scope 3 emissions by category

Categories 8, 9, 10, 13, and 14 were classified as not applicable in this inventory cycle, as they are not related to Rotoplas' current operational activities and showed no recorded activity or material relevance during the reporting period. This exclusion is aligned with the GHG Protocol's materiality principle, which allows for the omission of categories deemed non-significant or that do not generate attributable emissions.

Table 14 presents a summary of the methodologies applied for each category analyzed, based on their position within the value chain and the availability of specific, estimated, or expenditure-based data.

Scope 3 Category		S3 Methodology
Upstream	Category 1. Goods and products acquired	Provider-Specific Method - Hybrid Method
	Category 2. Capital goods	Expenditure-based method
	Category 3. Fuel and energy-related activities	Average Data Method
	Category 4. Upstream transportation and distribution	Fuel-Based Method - Expenditure-Based Method
	Category 5. Waste generated in operations	Vendor-Specific Method - Average Data Method
	Category 6. Business travel	Expenditure-based method
	Category 7. Employee commuting	Average Data Method
	Category 8. Upstream leased assets	Not applicable
Downstream	Category 9. Downstream transportation and distribution	Not applicable
	Category 10. Processing of sold products	Not applicable
	Category 11. Use of sold products	Method for the Direct Use Phase
	Category 12. End-of-life treatment of sold products	Specific Method for Each Waste Type - Average Data Method
	Category 13. Downstream leased assets	Not applicable
	Category 14. Franchises	Not applicable
	Category 15. Investments	Average Data Method

Table 12. Scope 3 estimation methodologies by category

Compared to the previous year, scope 3 emissions showed a 22% reduction, primarily attributable to methodological improvements in Category 11 (Use of Sold Products). This improvement included more accurate traceability of commercialized thermotanks, differentiated by type and usage patterns, based on international references such as those from the World Health Organization (WHO) and Instituto Nacional de Estadística y Censos (INDEC) de Argentina.

In addition, Category 15 related to emissions from investments was incorporated for the first time, following Rotoplas' participation in Irrivan, a company specialized in irrigation products and technical consulting for irrigation systems.

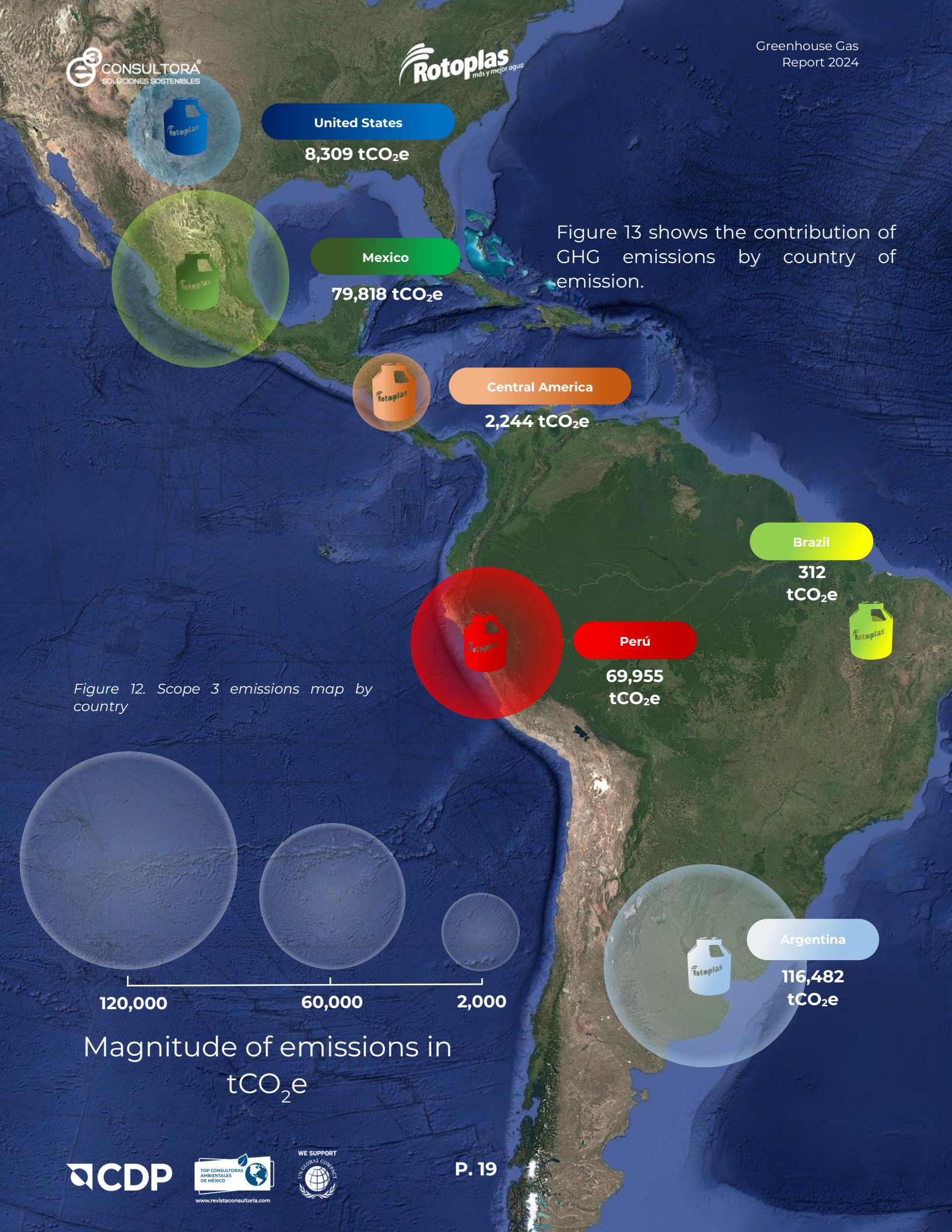


Figure 13 shows the contribution of GHG emissions by country of emission.

Figure 12. Scope 3 emissions map by country

Scope 3 GHG Inventory Results

Category 1. Goods and services purchased

Category 1 of scope 3 includes emissions derived from the acquisition of goods and services by Rotoplas. A hybrid methodology was applied for its estimation, combining approaches based on supplier-specific data and extended input-output (EEIO) economic factors. Category 1 emissions were 57,279 tCO_2e, representing 20% of scope 3 emissions in fiscal year 2024.

For critical suppliers, the supplier-specific methodology was used, which integrates carbon intensity factors per unit of product purchased. The supplier-specific methodology emissions estimate accounted for 17% of total emissions in category 1. The rest of the inflows (83%) were estimated using the expenditure methodology, which considers the economic amount in U.S. dollars ($USD) and the EEIO factors corresponding to the purchasing sector.

Within the emissions from the purchase of standard goods, the plastic and rubber products sector were the one with the largest contribution, with 88% of the total emissions from goods, due to the acquisition of inputs such as resins, polyethylene, random polypropylene, *masterbatches* and plastic components (pipes and filters), the main raw materials of Rotoplas' portfolio. It is followed by sectors such as metal products, glass, paper and others. Table 15 presents the breakdown by the purchasing sector.

Standard Goods Purchasing Sector	Emissions in tCO_2e	Percentage contribution
Plastic and rubber products	39,625.32	88%
Primary metals and their derivatives	1,918.42	4%
Glass products and their derivatives	1,640.23	4%
Paper and cardboard products	915.53	2%
Food and beverages and tobacco products	517.55	1%
Chemicals	299.40	1%
Apparel and leather and related products	108.25	<1%
Total	**45,024.70**	**100%**

Table 13. Category 1 emissions by purchasing sector

In terms of services, the largest contribution corresponds to the professional, scientific and technical services sector, mainly through the hiring of specialized consultants. It is followed by the civil works category, linked to masonry projects and minor adaptations in the Rotoplas' facilities. Table 16 details the emissions by type of service purchased.

Service Sector	Emissions in tCO_2e	Percentage contribution
Various professional, scientific and technical services	4,272.69	35%
Civil works	3,876.55	31%
Land transport (freight services)	1,219.91	10%
Publishing industries, except internet (includes software)	1,066.02	9%
Maintenance	708.56	6%
Administrative and support services (surveillance)	477.05	4%
Rental and leasing services and lessors of intangible assets	453.54	4%
Electricity, gas and water supply (Gas not reported in S1 and S2)	105.87	<1%
Legal Services	73.81	<1%
Total	**12,118**	**100%**

Table 14. Category 1 emissions by type of service

Table 17 presents the breakdown between the emissions associated with the purchase of standard goods and those linked to contracted services. Together, purchased goods accounted for 78% of the emissions in this category, while services accounted for the remaining 22%.

Category 1	Emissions in tCO_2e	% contribution
Standard Goods Purchased	44,084	78%
Services Purchased	12,254	22%
Total	**57,279**	**100%**

Table 15. Category 1 emissions by activity

The emission factors and carbon intensities used for this category are taken from sectoral and supplier databases and can be found in annex 4 to this report.

Category 2. Capital goods

Scope 3 category 2 includes emissions associated with the acquisition of capital goods, understood as long-lasting physical assets used in the organization's operational processes (e.g., machinery, equipment, or furniture). The estimation was carried out using an expenditure-based methodology, which considered the amount invested and the emission factors associated with the relevant sector, according to EEIO databases.

All entries (100%) were assessed using this approach. As a result, emissions were estimated at 4,644.04 tCO_2e, representing 2% of Rotoplas' total scope 3 emissions for the reporting year 2024.

Table 18 shows the breakdown of emissions by type of capital good acquired during the period. The category of machinery accounted for 55% of the emissions in this category, followed by electrical equipment and appliances, with 38%.

Capital Goods Purchasing Sector	Emissions in tCO_2e	% contribution
Machinery	2,550.65	55%
Electrical equipment, appliances and components	1,752.93	38%
Furniture & related products	252.38	5%
Computer and electronic products	88.09	2%
Total	**4,644.04**	**100%**

Table 18. Category 2 emissions by purchasing sector

The emission factors used for this category were selected based on the type of good acquired and the corresponding economic sector and can be consulted in annex 4 of this report.

Category 3. Fuel- and energy-related activities (Not included in Scope 1 or 2)

Scope 3 category 3 includes upstream emissions associated with the life cycle of purchased fuels and energy, specifically those not accounted for under scopes 1 and 2 such as emissions from extraction, processing, transportation, and distribution.

This calculation followed an average data methodology, using the total amount of fuels and electricity purchased by Rotoplas during 2024. Emissions were estimated using Well-to-Tank (WTT) factors for fossil fuels and specific factors for transmission and distribution (T&D) losses associated with purchased electricity.

Category 3 activities	Emissions in tCO_2e	% contribution
WTT emissions from purchased fuels	2,541.78	95%
WTT emissions and emissions from T&D losses of purchased energy	124,09	5%
Total	**2,665.86**	**100%**

Table 19. Category 3 emissions by activity

The total estimated emissions for this category amounted to 2,665.86 tCO_2e, representing approximately 1% of scope 3 emissions. Table 19 provides a breakdown of emissions by type of activity.

The emission factors used for the estimation of Category 3 emissions can be found in annex 4.

Category 4. Upstream Transportation and distribution

Scope 3 Category 4 includes emissions generated from the transportation and distribution of purchased goods up to the point of delivery at Rotoplas' facilities, excluding any emissions already accounted for under scopes 1 and 2. A hybrid methodology was applied for this estimation, combining a fuel-based approach (88%) with an expenditure-based approach (12%), the latter used in cases where direct activity data was unavailable.

The total estimated emissions for this category were 24,998.18 tCO_2e, representing approximately 9% of total scope 3 emissions. Figure 14 illustrates the distribution of emissions by methodology type and fuel used, with diesel identified as the primary contributor, accounting for 77% of the emissions in this category.

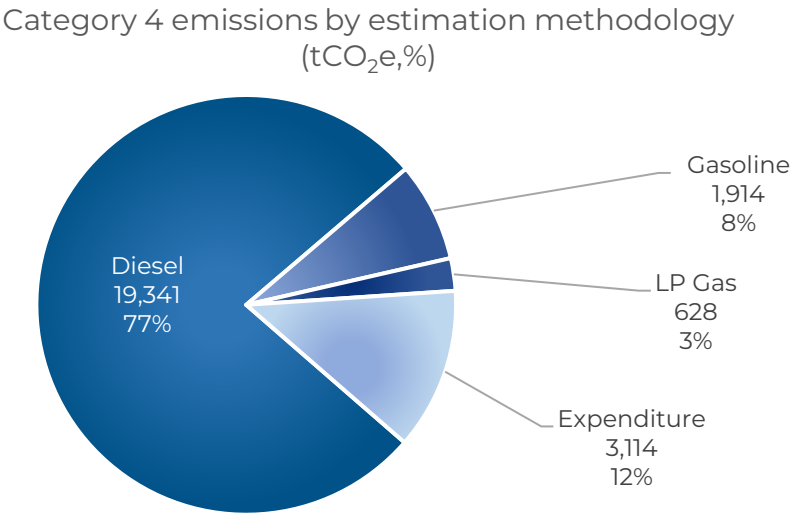


Figure 14. Category 4 emissions by methodology and fuel type.

Table 20 presents the breakdown by country, considering both emissions from fossil fuel consumption and those estimated using the expenditure-based approach. Mexico was the largest contributor, accounting for 69% of emissions in this category, followed by Peru (9%), Argentina (9%), and the United States (7%), the latter exclusively through logistics services reported as expenditure.

Ctry.	Fuel emissions in tCO_2e			Emissions from expenditures in tCO_2e	Total	% contribution
	Diesel	Gasoline	LP Gas			
MEX	13,207.01	1,914.86	627.86	1,477.27	17,227.00	69%

Ctry.	Fuel emissions in tCO_2e			Emissions from expenditures in tCO_2e	Total	% contribution
	Diesel	Gasoline	LP Gas			
ARG	2,273.66	-	-	-	2,273.66	9%
CA	1,479.24	-	-	-	1,479.24	6%
PER	2,381.43	-	-	-	2,381.43	9%
EEUU	-	-	-	1,636.86	1,636.86	7%
Total	**19,341.33**	**1,914.86**	**627.86**	**3,114.13**	**24,998.18**	**100%**

Table 20. Category 4 emissions by country

The emission factors used for the estimation of category 4 emissions can be found in annex 4.

Category 5. Waste generated in operations

Scope 3 category 5 covers emissions associated with the management and disposal of waste generated directly by Rotoplas' operations. A hybrid methodology was applied for this calculation, based on direct data on waste generation from operational sites and average emission factors by type of treatment or final disposal.

In 2024, the estimated emissions for this category were 359.35 tCO_2e, accounting for only 0.13% of total scope 3 emissions a value considered marginal within the organization's emissions profile.

Table 21 presents the types of waste generated, their classification, and the disposal method applied in each case.

Type of waste	Type of arrangement	Generation amount in kg
Municipal solid waste	Final disposal in landfill	641.91
Special handling waste	Recycling and co-processing	984.95
Hazardous waste	Co-processing	116.13
	Total	**1,742.99**

Table 16. Waste generation in Rotoplas operations

In terms of emissions, table 22 shows that final disposal in landfills generates the greatest impact, accounting for 94% of the emissions in this category. Recycling and co-processing contribute significantly less, which is consistent with the emission factors associated with each treatment pathway.

Type of disposition	Emissions in tCO_2e	% contribution
Final disposition	338.39	94%
Recycling	20.87	5%
Co-procesing	0.08	1%
Total	**359.35**	**100%**

Table 17. Category 5 emissions by type of disposal

The emission factors used for the estimation of category 5 emissions can be found in annex 4.

Category 6. Business travel

Scope 3 category 6 includes emissions associated with business travel by Rotoplas' employees, covering air and land transport using external service providers. For this category, an expenditure-based methodology was applied, using consolidated records of transportation tickets and supporting logistics services.

The calculation included air travel, ground transfers via buses and taxis, as well as complementary activities such as rental vehicles used for corporate travel. Accommodation expenses were excluded from this report, as they are considered an optional reporting flow under the GHG Protocol categories and were not prioritized by the organization for this reporting cycle.

Estimated emissions for this category totaled 567.00 tCO_2e, representing 0.20% of total scope 3 emissions a value below 1%, indicating low relative significance within the organization's overall emissions profile.

Table 23 provides a breakdown of emissions by type of business travel activity.

Type of concept	Emissions in tCO_2e	% contribution
Air transport	352.88	62%
Ground transport by bus	9.34	2%
Ground transport in taxis	29.48	5%
Other support activities	175.29	31%
Total reported	**566.99**	**100%**
Accommodation (not reported)	189.91	

Table 18. Category 6 emissions by type of activity

Figure 15 illustrates the percentage contribution of each type of activity. Air travel stands out, accounting for 62% of the emissions, followed by supporting activities, such as vehicle rentals, with 31%. Ground transportation by taxis and buses contributes 5% and 2%, respectively.

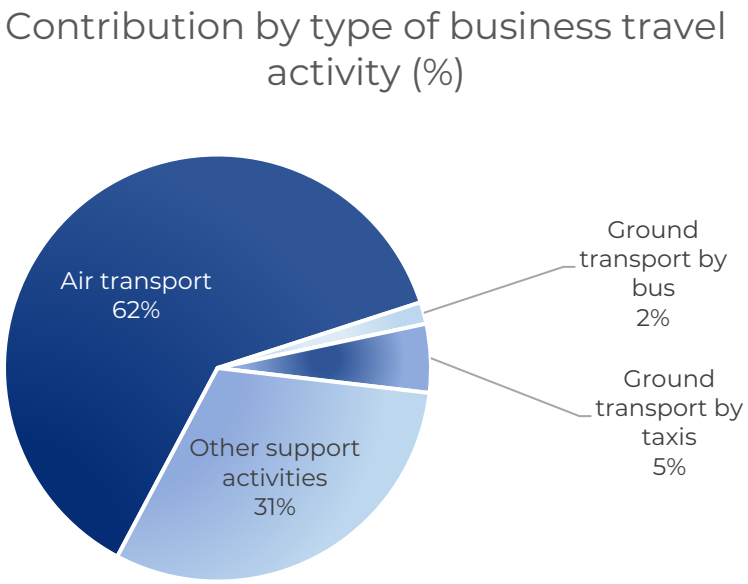


Figure 13. Category 6 emissions by type of activity

The emission factors used for the estimation of category 6 emissions can be found in annex 4.

Category 7. Employee commuting

Scope 3 category 7 includes indirect emissions resulting from employees' daily commuting to their workplaces, excluding the use of company-owned vehicles (which are reported under scope 1). An average data methodology was used for this estimation, considering typical round-trip commuting distances and standard sector-specific emission factors, adjusted by country.

During the reporting year 2024, estimated emissions for this category totaled 4,996.92 tCO_2e, representing approximately 2% of total scope 3 emissions. The calculation was based on the number of direct employees per country, as well as general mobility patterns observed in each region.

Table 24 shows the distribution of emissions by country, with Mexico as the main contributor, accounting for 67% of the category's emissions, followed by Argentina (22%) and Peru (4%). In total, 3,502 employees were considered across Rotoplas' various locations.

Country	Number of collaborators	Total emissions in tCO_2e	% contribution
MEX	2,350	3,353.16	67%
ARG	782	1,115.82	22%

Country	Number of collaborators	Total emissions in tCO_2e	% contribution
PE	144	205.47	4%
GT	84	119.86	2%
EEUU	70	99.88	2%
BR	43	61.36	1%
NI	17	24.26	<1%
HN	5	7.13	<1%
SALV	4	5.71	<1%
CR	3	4.28	<1%
Total	**3,502**	**4,996.92**	**100%**

Table 19. Category 7 emissions by country

The emission factors used for the estimation of category 7 emissions can be found in annex 4.

Category 11. Use of sold products

Scope 3 category 11 includes greenhouse gas emissions associated with the direct use of products sold by Rotoplas during their useful life, provided that these products consume fuel or energy during operation. The estimation was carried out using the direct use-phase method, in accordance with the guidelines of the GHG Protocol.

In the reporting year 2024, this category represented the largest share of scope 3 emissions, with a total of 172,807.20 tCO_2e, equivalent to 62% of the organization's total scope 3 emissions. The estimation was based on the technical specifications of the equipment sold, as well as average end-user usage patterns, including daily operation time, type of energy consumed, and estimated useful life.

Table 25 provides a breakdown of emissions by product sold, distinguishing between direct emissions (included in the GHG inventory) and indirect estimated emissions (not reportable under scope 3, but calculated as reference).

Product sold	Total emissions in tCO_2e	% contribution
Direct use-phase emissions		
Water heaters	164,329.24	95%
Purifiers and dispensers	3,692.42	2%
Pumps	2,065.48	1%
Treatment plants	2,061.14	1%
Thermofusers	658.92	<1%
Total	**172,807.20**	**100%**

Product sold	Total emissions in tCO_2e	% contribution
Indirect use-phase emissions		
Water tanks	24,135.42	
Hydraulic and fusion pipes	4,678.80	
Cisterns	2,596.79	
Total	**31,411.03**	

Table 20. Category 11 emissions per product sold

Thermotanks alone accounted for 95% of the direct emissions in this category and 59% of total scope 3 emissions. These units include both electric models and those that operate on LP gas or natural gas, and their emissions were calculated based on:

- Average hourly energy consumption (as per technical specifications),
- Preferred fuel type by region,
- Average daily usage time (e.g., shower duration),
- Projected product lifespan.

The assumptions, calculations, and sources used for this category are documented in annex 4, table 43 of this report.

Category 12. End-of-life treatment of products sold.

Scope 3 category 12 includes emissions resulting from the treatment of sold products at the end of their useful life, in accordance with life cycle assessment (LCA) principles and the guidelines of the GHG Protocol. A product-specific method was applied for the estimation, using emission factors associated with typical end-of-life processes such as disposal, recycling, or treatment for each product type.

In the reporting year 2024, this category generated a total of 8,254.09 tCO_2e, representing approximately 3% of Rotoplas' total reported scope 3 emissions.

Table 26 presents the breakdown by product type, detailing the number of units sold, the carbon footprint associated with end-of-life treatment per unit, and the relative contribution to the total emissions of this category.

Product Classification	Units sold	End-of-life carbon footprint (kg CO_2/ product use)	Total emissions (tCO_2e)	% contribution per product
Pipes	64,983,427	0.10	6,498.34	79%
Water tanks	1,373,550	0.41	563.16	7%
Cisterns	71,886	16.59	1,192.59	14%
Total	**66,428,863.00**	**17.10**	**8,254.09**	**100%**

Table 21. Category 12 emissions by type of product sold

As shown, the largest contribution comes from the end-of-life treatment of pipes, which accounts for 79% of the emissions in this category, followed by cisterns (14%) and water tanks (7%). These results reflect both sales volumes and the disposal factors associated with each product type, which include processes such as landfilling, partial recycling, or co-processing.

The emission factors applied are documented in annex 4.

Category 15. Investments.

Scope 3 category 15 includes indirect emissions associated with investments made by Rotoplas in other entities in which it holds a financial stake, provided that these emissions have not been previously accounted for under other scopes.

In 2024, an investment was reported in the subsidiary Irrivan, a company specialized in the distribution and sale of irrigation products, as well as technical consulting for the design of irrigation systems in Mexico. To quantify the associated emissions, the average data method was applied, using EEIO factors and considering both Irrivan's annual revenue and the level of financial control exercised by Rotoplas.

Table 27 provides the breakdown of emissions by type of economic activity of the subsidiary.

Irrivan's Activity	Amount of revenue in $USD	EEIO Emission Factor ($kgCO_2e/$USD)	GHG emission in tCO_2e
Sales and distribution of agricultural products	3,570,138.61	0.115	411
Technical Consulting Services	1,530,059.40	0.090	138
		Total	**548**

Table 22. Category 15 emissions by investment activity

The total estimated emissions for this category were 548 tCO_2e, representing 0.20% of total scope 3 emissions.

Scope 3 Emissions by country

With the objective of generating geographic carbon indicators to support strategic decision-making, scope 3 emissions were classified by country and business unit, including the RSA (water treatment) and RIEGGO (comprehensive solutions for the agro-industrial sector) models, both part of Grupo Rotoplas S.A.B. de C.V.

This classification allows for the identification of key emission-generating centers within the value chain and facilitates the design of regionally tailored mitigation strategies.

Table 28 presents the breakdown of emissions by country and business model, both in disaggregated form (by specific business unit) and as a consolidated total by geography. Notably, Argentina accounts for the largest share of scope 3 emissions (42%), followed by Mexico (29%) and Peru (25%), as the regions with the highest impact in terms of indirect emissions.

Geography	Emissions in tCO_2e		Scope 3 contribution	
	Particular	Consolidated	Particular	Consolidated
MEX	76,654.34	79,818.17	28%	29%
RIEGGO	261.59		<1%	
RSA	2,902.24		1%	
ARG	116,486.26	116,486.26	42%	42%
PE	69,956.29	69,956.29	25%	25%
CA	2,237.77	2,237.77	1%	1%
BRA	312.18	312.18	<1%	<1%
EEUU	8,308.78	8,308.78	3%	3%
Total	**277,119.60**	**277,119.60**	**100%**	**100%**

Table 23. Scope 3 emissions by country

Figure 16 shows the percentage distribution of consolidated scope 3 emissions by country, providing a visual representation of the priority geographies in terms of indirect climate impact.

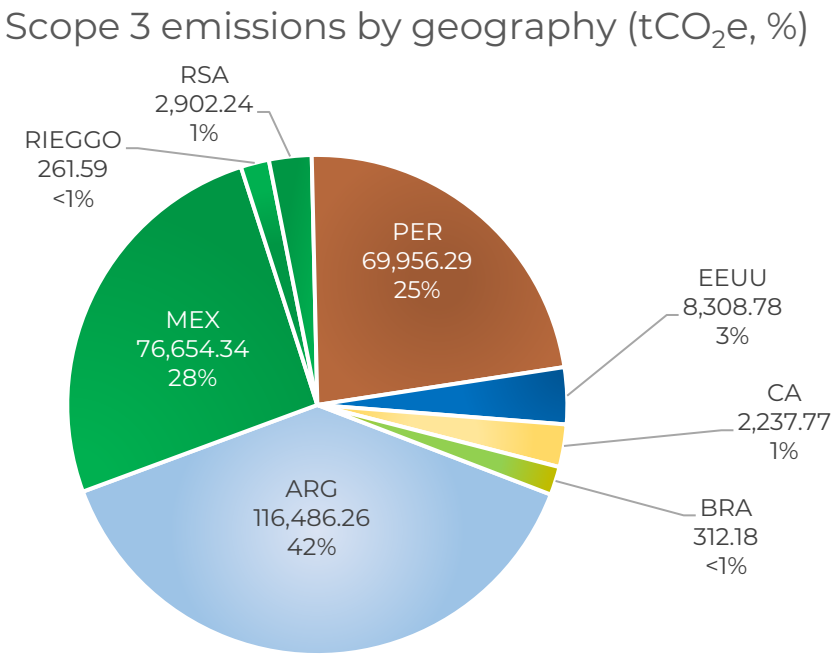


Figure 14. Scope 3 emissions by geography

The data in this section enables a more detailed territorial analysis, allowing for the design of targeted measures related to supply chains, energy consumption patterns, or products distributed in each region.

Conclusions – Scopes 1 and 2

A pre-verification of Rotoplas' 2024 corporate greenhouse gas emissions inventory was conducted, using the same methodology and emission factors applied by the organization. Based on this exercise, the absolute materiality between the calculations performed by Rotoplas and e3 Consultora was determined to be 0.001%, a value below the maximum materiality threshold established under the applied verification criteria. The assurance letter for the GHG emissions verification can be found in Annex 1.

In 2024, Rotoplas' scope 1 and 2 emissions totaled 35,671 tons of carbon dioxide equivalent (tCO_2e), with a carbon intensity of 0.38 tCO_2e per ton of resin and metal processed (t.RM. P.).

Compared to the previous year, Rotoplas achieved an 11% reduction in scope 1 and 2 emissions, and a 12% reduction in carbon intensity per ton of resin and metal processed.

- A total of 749 fuel and energy consumption records were evaluated, representing 100% of the greenhouse gas emissions from Rotoplas S.A.B. de C.V.

- Records from 23 facilities located in Mexico, Argentina, Peru, Costa Rica, Honduras, Nicaragua, and Guatemala were reviewed. The consolidated electricity consumption for the United States was also assessed.

- As a result of the GHG emissions review and verification process, an absolute materiality of 0.001% was calculated.

- The Monterrey Compounds Plant was identified as the facility with the highest contribution to scope 1 and 2 emissions, accounting for 15% of total emissions for these scopes—equivalent to 5,332.49 tCO_2e.

- Scope 1 emissions account for 46% of Rotoplas' total emissions, while Scope 2 emissions represent 54%, corresponding to 16,422.96 tCO_2e and 19,248.81 tCO_2e, respectively.

Limitations of the Pre-verification analysis

The verification of a greenhouse gas (GHG) inventory is a key process to ensure the accuracy, completeness, and transparency of reported data. However, this exercise is not exempt from limitations that may affect the quality of results and the reliability of the final inventory. These limitations may arise from the availability and quality of the information used, as well as from methodological, operational, or human factors that influence the scope and depth of the verification. The main limitations identified in the pre-verification of the Rotoplas inventory are:

- Outdated electricity emission factors in some Central American countries.
- Traceability issues in energy consumption at facilities that share electricity supply from the independent provider Sujío in León.
- Gaps in documentation and storage systems for managing fuel and energy consumption invoices.
- Use of significant figures and approximations in the estimation formulas for GHG values.

Conclusions – Scope 3

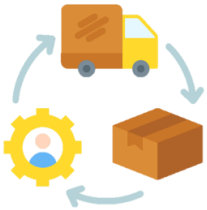
During the 2024 reporting year, Rotoplas conducted the estimation of indirect emissions under the GHG Protocol – Scope 3 standard, covering 10 out of the 15 applicable categories. As a result, a total of 277,120 tons of CO_2 equivalent were quantified, representing a 22% reduction compared to the 2023 period. This decrease is primarily attributed to improved data traceability, methodological updates in the use of sold products category, and the strengthening of the applied calculation bases.

The results analysis reveals a high concentration of emissions in three key categories:

.

- Category 11 – Use of Sold products: Contributed 172,807.20 tCO_2e, equivalent to 62% of total scope 3 emissions. Within this category, thermotanks stood out, representing 95% of the emissions in Category 11, reflecting the emission intensity associated with energy consumption during the useful life of these units.

- Category 1 – Purchased goods and services: Accounted for 57,279 tCO_2e (21%), mainly related to the procurement of raw materials (primarily plastics and metals) and specialized services. This category reflects the climate impact associated with supply chains for both direct and indirect inputs.



- Category 4 – Upstream Transportation and distribution: Generated 24,998 tCO_2e (9%), primarily due to the use of diesel in ground transportation of materials from points of origin to operational facilities.

- Distribution analysis: 89% of Rotoplas' total emissions come from scope 3, while scopes 1 and 2 account for the remaining 11%. This distribution confirms that most of the organization's carbon profile lies outside its direct operations, in activities related to suppliers, transportation, and the use of sold products.

Recommendations

To strengthen the technical quality and reliability of Rotoplas' greenhouse gas (GHG) emissions inventory, the following recommendations are presented to improve methodological accuracy, data traceability, and the robustness of documentation systems.

These suggestions are aligned with the best international practices in carbon accounting and focus on both the general management of the inventory and the specific treatment of scope 3 categories.

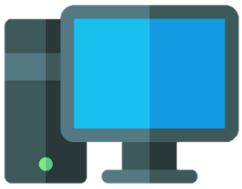
- Establish mechanisms for the continuous collection of activity data, which would allow for an earlier inventory closure and improved data availability.
- Request that geographically responsible teams obtain and validate local electricity emission factors, including direct engagement with electricity providers.
- Implement a digital documentation and information management system for the scope 3 inventory to ensure traceability, integrity, and centralized storage of supporting evidence, invoices, consumption data, and methodologies (where applicable).

Since each category requires specific types of information, the following section outlines tailored suggestions for each.

Category 1. Purchased goods and services.

- Increase the use of physical data units (e.g., mass, volume, or service delivered) instead of relying solely on economic value.
- Establish collaboration agreements with key suppliers to obtain specific emissions data (scopes 1 and 2).
- In cases where primary data is not feasible, continue using the expenditure-based method, ensuring precise cost disaggregation and the application of appropriate EEIO factors.

Category 2. Capital goods.



- Expand collaboration efforts with suppliers to obtain emissions data related to capital goods.
- Improve the internal classification of acquired capital goods by accurately recording the economic sector and the nature of the asset.

Category 3. Fuel and energy related activities (Not included in scope 1 or 2).

- Systematize the collection of life cycle assessment (LCA) factors or supplier-specific data to progressively replace average emission factors.

Category 4. Upstream Transportation and Distribution.

- Some purchases of standard goods and capital goods include embedded transportation services. It is therefore recommended to implement systems that can identify entries potentially associated with significant transportation emissions, even when transportation costs are included within the overall purchase value.

Category 5. Waste generated in operations.

- Design a traceability system for waste flows, covering generation, treatment, and final disposal. While this category has a relatively low impact, its emissions can vary significantly depending on the type of end-of-life treatment used.

Category 6. Business travel.

- Verify the segregation of data by country to improve traceability and enhance the accuracy of emissions estimates for this category.
- Include origin/destination data for flights, and classify trips by type (short-, medium-, or long-haul) and purpose of travel.

Category 7. Employee commuting.

- It is recommended to base estimations on average commuting distances, segmented by transportation mode and location.
- It is also recommended to begin mapping employees working under remote or hybrid models, as this may lead to a reduction in projected emissions for this category.

Category 11. Use of Sold Products.

- For pumps sold, carry out a segmentation by power type and adjust calculations accordingly based on this classification.
- Continue improving the traceability of activity data to estimate emissions from thermotanks, as this source represents the largest share of Rotoplas' total scope 3 emissions.

Category 12. End-of-life treatment of products sold

- Include a breakdown by type of packaging and wrapping (e.g., boxes, stretch film, bags, labels), along with their respective carbon footprints.
- Assess recycling rates by product type and country to refine the calculation of end-of-life emissions.

Category 15. Investments.

- Since Rotoplas holds 100% ownership and exercises financial control over Irrivan, it is recommended to establish an internal mechanism for Irrivan to annually report its energy and fuel consumption. This will enable the calculation of actual emissions, which can then be incorporated into the Rotoplas inventory in accordance with the GHG Protocol investment methodology.

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Annexes

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Annex 1 - Assurance Letter 2024

To whom it may concern,

e3 Consultora has conducted the technical review of the GHG emissions estimation reported in the Greenhouse Gas Emissions Inventory of **Grupo Rotoplas S.A.B. de C.V. (hereinafter "Rotoplas")** for the year 2024, covering the period from January 1 to December 31 of the reporting year. The purpose of this verification was to validate the criteria used by **Rotoplas** in the development of its GHG emissions estimation. It is our responsibility to draw a conclusion regarding Rotoplas' statement based on our review.

Rotoplas applied an operational control approach for the calculation of its GHG emissions, including facilities located in Mexico, Peru, Argentina, Nicaragua, Honduras, Guatemala, Costa Rica, and the United States. No exclusions were made in the reported inventory.

The emissions review was conducted in accordance with the "GHG Protocol: Corporate Accounting and Reporting Standard" and the verification criteria under Mexico's National Emissions Registry (RENE) framework for the reporting of greenhouse gases and compounds.

We are committed to maintaining impartiality regarding the results of this verification, in accordance with the standards referenced above. The procedures we performed were based on our **professional judgment**. As part of our review, we carried out analytical procedures, including **mathematical accuracy testing** of the reported calculations, comparison of the specified information with underlying records, and observation of the data collection process. These emissions were calculated as presented in Table 13.

An **absolute materiality of less than 1%** was determined in relation to the emissions reported by Rotoplas. Based on our review, we are **not aware of any material** modifications that should be made to Rotoplas' emissions declaration, as presented in Table 30 of the 2024 GHG Emissions Report, as well as in the supporting documents "2024 Environmental Indicators Summary" and "Scope 3 Inventory Calculation Workbook.".

	2024
Scope 1	16,422.96 $mtCO_2e$
Scope 2 Location-based	18,396.09 $mtCO_2e$
Scope 2 Market-based	852.72 $mtCO_2e$
Scope 3 Category 1 Goods and services purchased	57,278.69 $mtCO_2e$
Scope 3 Category 2 Capital goods	4,644.04 $mtCO_2e$
Scope 3 Category 3 Fuel and energy activities	2,665.86 $mtCO_2e$
Scope 3 Category 4 Upstream transportation and distribution	24,998.18 $mtCO_2e$
Scope 3 Category 5 Waste generated in operations	359.35 $mtCO_2e$
Scope 3 Category 6 Business travel	566.99 $mtCO_2e$
Scope 3 Category 7 Employee commuting	4,996.92 $mtCO_2e$
Scope 3 Category 8 Upstream leased assets	0.00 $mtCO_2e$
Scope 3 Category 9 Downstream transportation and distribution	0.00 $mtCO_2e$
Scope 3 Category 10 Processing of sold products	0.00 $mtCO_2e$
Scope 3 Category 11 Use of sold products	172,807.20 $mtCO_2e$
Scope 3 Category 12 End-of-life treatment of sold products	8,254.09 $mtCO_2e$
Scope 3 Category 13 Downstream leased assets	0.00 $mtCO_2e$
Scope 3 Category 14 Franchises	0.00 $mtCO_2e$
Scope 3 Category 15 Investments	548.27 $mtCO_2e$

Table 24. Verified Rotoplas emissions 2024

Lead verifier
Chief Operating Officer
David Romero Parra

Verification team
Operational Coordinator
Gerardo Ríos Aguila

Verification team
Technical Specialist
Sergio Aldair Huerta Sánchez

Verification team
Technical Specialist
José Luis Alejandro Guerra Fragoso

Annex 2 – Table of electricity emission factors used

Table 25. ANNEX Electrical emissions factors used in the 2024 report

Country	Supplier	Energy factor (tCO_2e/kWh)	Year of the factor	Reference
Mexico	CFE	0.000444	2024	Factor de Emisión del Sistema Eléctrico Nacional 2024
Mexico	INFRA - Cogeneración	0.000391	2021	Data provided by supplier
Guatemala	Empresa eléctrica de Guatemala	0.000281	2020	Balance energético 2020
Argentina	EDENOR	0.000429	2023	Cálculo del factor de emisión de la red 2013 a 2023
Brazil	Energisa	0.000126	2021	Inventarios Corporativos
Peru	Luz del Sur	0.000452	2020	Ministerio de Economía y Finanzas
United States	ERCOT All	0.000394	2021	EPA eGRID2020, March 2021
Costa Rica	ND	0.000088	2024	IMN factor de emisión
El Salvador	ND	0.000680	2011	Ministerio de Medio Ambiente
Honduras	ND	0.000633	2009	MiAmbiente
Nicaragua	ND	0.000710	2012	Nicaragua - Regatta
Mexico	Sujío	0.000058	2024	Data provided by supplier

Annex 3 – Calculation files for criteria air pollutants

Table 26. ANNEX Estimation of pollutants: Mexico

Emissions of pollutants Mexico						
Fuel	CO	NO_x	SO_x	COV	PM10	PM2.5
Natural gas	2.02	7.29	0.04	0.40	0.04	0.02
LP gas	1.33	3.99	0.02	0.22	0.02	0.01
Diesel	0.01	0.04	0.00	0.00	0.00	0.00
Gasoline	0.12	0.06	0.00	0.04	0.00	0.00
Total	3.48	11.38	0.07	0.67	0.07	0.03

Table 27. ANNEX Estimation of pollutants: Argentina.

Emissions of pollutants Argentina						
Fuel	CO	NO_x	SO_x	COV	PM10	PM2.5
Gas Natural	0.77	2.76	0.02	0.15	0.02	0.01

Emissions of pollutants Argentina						
Fuel	CO	NO_x	SO_x	COV	PM10	PM2.5
LP gas	0.00	0.00	0.00	0.00	0.00	0.00
Diesel	0.00	0.01	0.00	0.00	0.00	0.00
Gasoline	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.77	2.77	0.02	0.15	0.02	0.01

Table 28. ANNEX Estimation of pollutants: Perú

Emissions of pollutants Peru						
Fuel	CO	NO_x	SO_x	COV	PM10	PM2.5
Natural gas	0.49	1.75	0.01	0.10	0.01	0.00
LP gas	0.00	0.00	0.00	0.00	0.00	0.00
Diesel	0.00	0.00	0.00	0.00	0.00	0.00
Gasoline	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.49	1.75	0.01	0.10	0.01	0.00

Table 29. ANNEX Estimation of pollutants: Central América

Emissions of pollutants Central America						
Fuel	CO	NO_x	SO_x	COV	PM10	PM2.5
Natural gas	3.28	11.79	0.07	0.66	0.07	0.03
LP gas	2.90	8.70	0.05	0.48	0.05	0.02
Diesel	0.008	0.055	0.005	0.004	0.001	0.001
Gasoline	0.12	0.06	0.00	0.04	0.00	0.00
Total	6.30	20.61	0.12	1.18	0.12	0.06

Annex 4 – Emission factors used in Scope 3 calculations

The following tables present the emission factors used for calculating Rotoplas' scope 3 emissions.

Table 30. ANNEX Spend-based EEIO factors, category 1, 2 and 4

Spend-based factors Sector or activity	EEIO factor tCO_2e/USD	Reference
Farms	0.0018028	Modified from: USEPA (2024) Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities, USEPA Report
Forestry, fishing, and related activities	0.0003336	
Oil and gas extraction	0.0014546	
Mining, except oil and gas	0.0013175	
Mining support activities	0.0008719	
Construction	0.0003408	
Food, beverages, and tobacco products	0.0008657	
Textile mills and textile product mills	0.0004106	
Apparel and leather products	0.0003558	
Wood products	0.0002729	
Paper and cardboard products	0.0004291	

Spend-based factors Sector or activity	EEIO factor tCO_2e/USD	Reference
Printing and related support activities	0.0002858	Modified from: USEPA (2024) Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities, USEPA Report
Petroleum and coal products	0.0014236	
Glass and glass products	0.0005370	
Chemical products	0.0003555	
Plastic and rubber products	0.0002190	
Non-metallic mineral products	0.0006255	
Primary metals and metal products	0.0000636	
Fabricated metal products	0.0002929	
Machinery	0.0002324	
Computer and electronic products	0.0000665	
Electrical equipment, appliances, and components	0.0002691	
Motor vehicles, bodies, trailers and parts	0.0002217	
Other transportation equipment	0.0001003	
Furniture and related products	0.0002953	
Miscellaneous manufacturing	0.0002726	
Wholesale trade	0.0001506	
Motor vehicle and parts dealers	0.0001090	
Food and beverage stores	0.0001498	
General merchandise stores	0.0001046	
Air transportation	0.0010276	
Rail transportation	0.0007942	
Water transportation	0.0007639	
Ground transportation	0.0014014	
Transit and ground passenger transportation	0.0005660	
Pipeline transportation	0.0020732	
Warehousing and storage	0.0005066	
Other retail trade	0.0001791	
Publishing industries, except internet (includes software)	0.0000619	
Motion picture and sound recording industries	0.0000616	
Broadcasting and telecommunications	0.0000862	
Data processing, internet publishing, and other information services	0.0000912	
Federal Reserve banks, credit intermediation, and related activities	0.0000748	
Insurance carriers and related activities	0.0000470	
Funds, trusts, and other financial vehicles	0.0002254	
Rental and leasing services and lessors of intangible assets	0.0001008	
Legal services	0.0000612	

Spend-based factors Sector or activity	EEIO factor tCO_2e/USD	Reference
Miscellaneous professional, scientific, and technical services	0.0001527	Modified from: USEPA (2024) Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities, USEPA Report
Computer systems design and related services	0.0000651	
Business and enterprise management	0.0001135	
Administrative and support services	0.0001295	
Waste management and remediation services	0.0016873	
Educational services	0.0001950	
Outpatient healthcare services	0.0000980	
Hospitals	0.0001903	
Residential and nursing care facilities	0.0001892	
Social assistance	0.0001832	
Performing arts, spectator sports, museums, and related activities	0.0000810	
Entertainment, gambling, and recreation industries	0.0004245	
Food services and drinking places	0.0002467	
Other services, except government	0.0001669	
Other real estate	0.0004535	
Civil engineering	0.0002110	
Maintenance	0.0001360	
Electric, gas, and water supply	0.0003398	
The Dow Chemical Company	0.100 kCO_2e/kg	The Dow Chemical Company - Climate Change 2022 (CDP)
Indelpro S.A. De C.V.	0.140 kCO_2e/kg	Average sector intensity
Equistar Chemicals Lp	0.140 kCO_2e/kg	
Vinmar International, Llc	0.140 kCO_2e/kg	
Hyosung Chemical Corporation	0.140 kCO_2e/kg	Hyosung Chemical - Climate Change 2022 (CDP)
Mac Polimeros Sa De Cv	0.140 kCO_2e/kg	Average sector intensity
Omnigreen Sapi De Cv	0.204 kCO_2e/kg	Provided by supplier
Corporativo Mineral Quimico Sa De CV	0.960 kCO_2e/kg	

Spend-based factors Sector or activity	EEIO factor tCO_2e/USD	Reference
Ck Orlix Sa De Cv	0.960 kCO_2e/kg	Modified from Alpek SAB de CV - Climate Change 2022

Table 37. ANNEX Category 3 Upstream Factors

Category 3	Ascending factor	Source
GN Factor $kgCO_2e/kWh$	0.033	*WTT Factor of GHG conversion factors 2024 | DEFRA*
LP Gas Factor $kgCO_2e/kWh$	0.027	
Diesel Factor $kgCO_2e/kWh$	0.062	
Gasoline Factor $kgCO_2e/kWh$	0.063	
Upstream electric power factor in Mexico	0.085	Modified from *Life cycle assessment of electricity generation in Mexico (Santoyo et al., 2011)*
Upstream electric power factor in Central America	0.046	Modified from *WTT Factor of GHG conversion factors 2024 | DEFRA*
Solar Panels T&D Factor	0.053	LCA Factor Upstream EE Generation with Solar Panels | SimaPro

Table 38. ANNEX Waste disposal factors category 5

Emission factor category 5	Combustion	Composting	Landfill	Anaerobic digestion	Recycling
Type of waste	$kgCO_2e/t$ factor				
Commercial and industrial waste	21.28		467.00		
Aluminum cans and sheets	21.28		8.88		21.28
Scrap	21.28		8.88		21.28
Source	*Department for Business, Energy & Industrial Strategy (DEFRA), UK Government GHG Conversion Factors for Company Reporting (2024)*				

Table 39. ANNEX Emission factors category 6

Category 6 activity	Expense-based factor (tCO_2e/$USD)	Source
Transit and land passenger transportation	0.000329	USEPA (2024) Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities, USEPA Report
Other transportation and support activities	0.000527	
Accommodation	0.000175	
Air transport	0.000350	
Shipping	0.001932	

Table 40. ANNEX Category 7 emission factor

Category 7 activity	Average emission factor per trip	Source
Employee commuting	1.42	Own elaboration based on average travel distance and emission factor passenger kilometer.

Tables 41 and 42 present the calculation files and activity data used to estimate emissions during the use phase of pumps and thermotanks sold in 2024.

Table 41. ANNEX Emission calculation report per product sold pumps

Product type	Capacity Liters	kWh consumption	kWh average consumption	Purchase geography	Units sold	Total emissions tCO_2e
Pressurizing pump	1/4 HP	0.100	0.140	MEX	20,274.000	1,602.348
	1/3 HP	0.120				
	1/2 HP	0.200				
Centrifugal pump	1/4 HP	0.150	0.566			
	1/2 HP	0.618		PE	2,925.000	235.394
	3/4 HP	0.638				
	1 HP	0.859		CA	1,422.000	108.299
Peripheral pump	1/2 HP	0.200	0.290			
	3/4 HP	0.380		ARG	1,567.000	119.440
Submersible pump	1/2 HP	0.400	0.575			
	1 HP	0.750				

Table 42. ANNEX Emission calculation report for water heaters

Product type	Capacity Liters	Units sold	Total emissions tCO_2e			Total emissions tCO_2e
			GN	GLP	ELEC	
Gas water heater	30L	24,511.00	9,129.314	2,373.616		11,502.930
	50L	28,931.00	10,119.373	2,634.796		12,754.169
	75L	1,964.00	935.485	243.520		1,179.006
	85L	54,446.00	17,841.479	4,847.285		22,688.763
	110L	1,232.00	752.279	195.685		947.963
	120L	12,395.00	4,150.514	1,079.689		5,230.204
	160L	2,791.00	1,246.103	324.265		1,570.368
DualSolution water heater	30L	192	78.617	18.593		97.210
	50L	622	217.561	56.647		274.207
Heater	14L	3,376.00	4.030	1.217		5.247
Electric water heater	120L	3,427.00			1,640.966	1,640.966
	95L	44,750.00			10,713.925	10,713.925
	90L	4,060.00			1,944.069	1,944.069
	80L	5,398.00			1,723.166	1,723.166
	65L	59,246.00			14,184.519	14,184.519
	60L	5,899.00			1,883.097	1,883.097
	40L	47,701.00			11,420.446	11,420.446
	20L	5,470.00			1,309.613	1,309.613
Ecosmart Plus Wifi	50L	7,510.00			1,798.024	1,798.024
Ecosmart Plus Wifi	80L	1,882.00			450.583	450.583
Ecosmart Plus Wifi	100L	112.00			26.815	26.815
Terma New Compact Silver		25,848.00			18,565.377	18,565.377
Terma Supreme		48,307.00			42,406.953	42,406.953
Ecoflaming 5.5L	5.5L	3,774.00	3.864	0.000		3.864
Terma a gas	6L	1,415.00	1.264	0.329		1.593
Terma a gas	10L	2,967.00	4.418	1.149		5.567

Product type	Capacity Liters	Units sold	Total emissions tCO_2e			Total emissions tCO_2e
			GN	GLP	ELEC	
Terma a gas	14L	228.00	0.475	0.124		0.599

Table 43. ANNEX Assumptions for the calculation of emissions in thermostatic water heaters sold

Assumptions for estimating water heater emissions	Description
Average hours of use per day	It was estimated that water heaters are used 15 minutes per day, taking as a reference the WHO standard value that indicates that the average shower time should be 5 minutes per person. Factors such as the geographic context of water heater sales were also considered, in countries where the average temperature contributes to reduce the time of use per day and per season. (0.150 hours per day)
Operating days	An average heater operation of 355 days per year was estimated, considering values reported in censuses and statistics of the countries where the products are distributed: *"Indicadores de condiciones de vida de los hogares en 31 aglomerados urbanos, Argentina, 2024."*
Type of fuel used in the dual thermostat (LP gas or natural gas).	According to the distribution of gas in the geographic area where water heaters are sold, it was defined that 80% of the users consume natural gas as an energy source for the use of water heaters and the remaining 20% consume LP gas: "*Viviendas particulares ocupadas que utilizan para cocinar principalmente gas de red o electricidad por departamento, partido o comuna, en porcentaje. Argentina, 2022.*"

Table 44. ANNEX Category 12 Emissions Calculation Report

Country	Product classification	Units sold	Carbon footprint by end of life [kg CO_2/ product use]	Total emissions [tCO_2e]
MEX	Pipes	38,990,056.20	0.10	3,899.01
	Water tanks	810,394.50	0.41	332.26
	Cisterns	42,412.74	16.59	703.63
ARG	Pipes	12,996,685.40	0.10	1,299.67
	Water tanks	288,445.50	0.41	118.26
	Cisterns	15,096.06	16.59	250.44
EU	Pipes	-	0.10	-
	Water tanks	123,619.50	0.41	50.68
	Cisterns	6,469.74	16.59	107.33
PER	Pipes	12,996,685.40	0.10	1,299.67
	Water tanks	109,884.00	0.41	45.05
	Cisterns	5,750.88	16.59	95.41
CA	Pipes	-	0.10	-
	Water tanks	27,471.00	0.41	11.26
	Cisterns	1,437.72	16.59	23.85
BRA	Pipes	-	0.10	-
	Water tanks	13,735.50	0.41	5.63
	Cisterns	718.86	16.59	11.93

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