

# GHG EMISSIONS OVERVIEW

APRIL 2024



### INTRODUCTION

The world is experiencing unprecedented social and environmental challenges. We are heading towards a situation where, in order to fulfill the demands of the ever-growing population, we will have to be more than three times as efficient when using the available resources and even more efficient when using materials.

Therefore, countries have ratified their commitment to the Paris Agreement to limit the temperature increase to less than 2 degrees Celsius (°C), and pursue efforts to keep temperature rise to no more than 1.5 °C.

This has resulted in a number of climate change mitigation measures, including quantification and reporting programs, energy efficiency standards, state and municipal climate action plans, the development of federal and state laws and regulations, and trade restrictions based on carbon footprint estimations and service and product life cycle analyses.

In line with these measures, GENOMMA LAB joins in to create strategies that will help them move beyond simply recognizing the risks associated with their GHG emissions but also towards. implementing actions that will allow them to manage and guarantee, among other things, the quality and transparency of the information they share with the different stakeholders involved.

As a result, actions connected to guantifying, reporting, verifying, and reducing GHG emissions have become increasingly important. Organizations can use these activities to drive the development of strategies for understanding and managing the risks and exposure connected with their levels of GHG emissions, acknowledging that what is not measured is difficult to manage and control. In other words, accounting for emissions helps to identify more effective reduction opportunities, which can lead to increased energy efficiency and the development of new products and services that reduce the GHG impacts of customers, suppliers, users and the community at large.

### **OBJECTIVE**

Estimate Genomma Lab's Greenhouse Gas (GHG) emissions in 2023 associated with the operating limits described in this inventory, detailing their sources and calculation methodology. Like the GHG inventories of previous years, this inventory will continue to serve as a basis for developing actions to reduce emissions in the identified growth areas.

#### **METHODOLOGY**

### SCOPE

The methodology used is based on the GHG Protocol Corporate Accounting and Reporting Standard (CARS), developed in 2001 by the World Business Council for Sustainable Development (WBCSD)<sup>1</sup> and the World Resources Institute (WRI). It was published in its second revised edition in Spanish in 2005 by the Mexican Ministry of the Environment and Natural Resources(Secretaría de Medio Ambiente y Recursos Naturales, SEMARNAT).

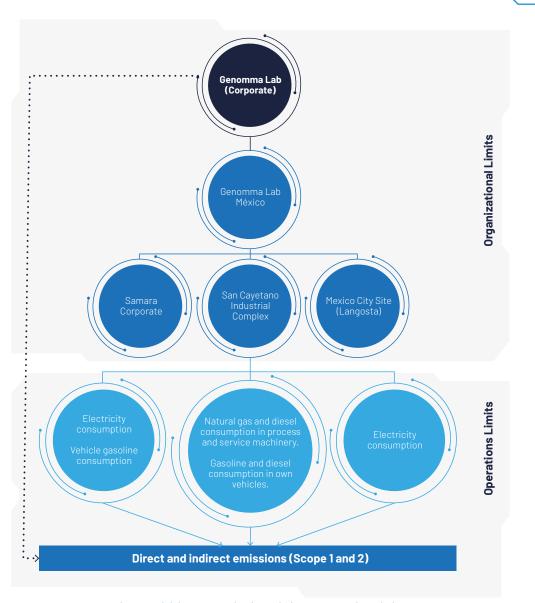
Genomma Lab accounts, reports and manages its emissions under this guideline.

Following the GHG Protocol criteria, the company's organizational and operational scopes were defined to limit the scope of the inventory based on the number of facilities and the operations performed in each of them. This allows to know the GHG emission sources to be reported while establishing the origin source to collect activity data.

Therefore, the method chosen to calculate carbon dioxide equivalent emissions was based on activity data and emission factors. The emission factors published by SEMARNAT<sup>2</sup> were used to calculate Scope 1 and 2. Emission factors used for Scope 3 emissions come from the DEFRA<sup>3</sup> database. The following sections describe steps and associated results in greater detail.

For the reporting year (2023), Genomma Lab considers three facilities within its limits: the plant located in the "San CayetanoIndustrialComplex," aproduction line in Mexico City called "Langosta," and the "Samara" corporate offices.

The emission sources or activities that generate GHG emissions in the company were identified considering the control approach shown in *Figure 1* and were classified by Scope, in accordance with the GHG Protocol guidelines.



Greenhouse Gas Protocol (GHG Protocol). A Corporate Accounting and Reporting Standard http://ghgprotocol.org/corporate-standard
 RENE, SEMARNAT. https://www.gob.mx/semarnat/acciones-y-programas/registro-nacional-de-emisiones-rene
 DEFRA.UK Government GHG Conversion Factors for Company Reporting, 2024.

Figure 1. Division of organizational limits and operations limits. Source. Prepared by the company, 2024.

## SCOPE

#### Figure 2. Genomma Lab's emissions classification by Scope. Source. Prepared by the company, 2024.

#### **Scope 1** Direct GHG emissions.

Emissions related to Genomma Lab's direct operations are included, that is, emissions from stationary and mobile sources that are owned or controlled by the company.

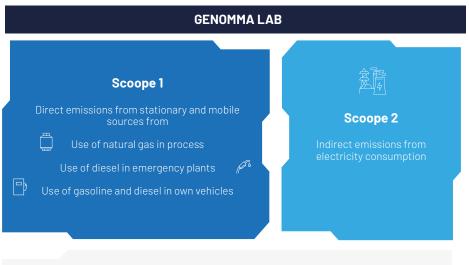
#### Scope 2 Indirect GHG emissions.

It includes indirect emissions related to the generation of electricity purchased and consumed within the Genomma Lab organizational limit.

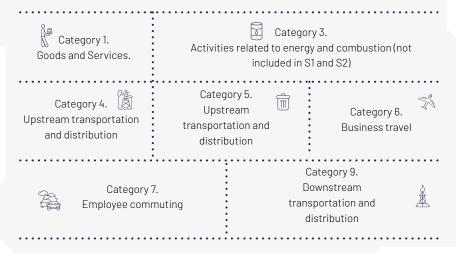
#### **Scope 3** Indirect GHG emissions within the rest of the value chain.

These are indirect emissions generated outside of Genomma Lab's operations control, that is, within the value chain. Of the 15 existing categories<sup>4</sup>, emissions from the following categories are reported for Mexico during this period:

- Category 1. Purchased goods and services.
- Category 3. Other activities related to fuels and energy.
- Category 4. Upstream transportation and distribution.
- Category 5. Waste generated in operations.
- Category 6. Business travel.
- Category 7. Employee commuting.
- Category 9. Downstream transportation and distribution.



#### Scoope 3



4 For more information on Scope 3 categories, see: https://ghgprotocol.org/scope-3-technical-calculation-guidance

According to the GHG emissions calculations used in line with the chosen methodology, the total of Scope 1, Scope 2, and Scope 3 emissions in 2023 equals **52,563.08 tons of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e).** As shown in *Figura* 3, 6% of the total emissions stem from direct emissions from stationary and mobile sources, 10% from indirect emissions from electricity consumption, and 84% from indirect emissions within the value chain or emissions not controlled by the Company.

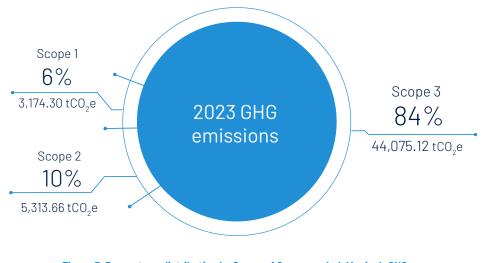


Figure 3. Percentage distribution by Scope of Genomma Lab Mexico's GHG emissions in 2023. Source. Prepared by the company, 2024. *Table 1* shows the quantity of 2023 emissions in carbon dioxide equivalents for each Scope for Genomma Lab Mexico.

#### Total GHG emissions. 2023 Period.

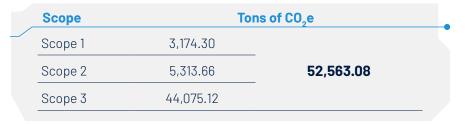
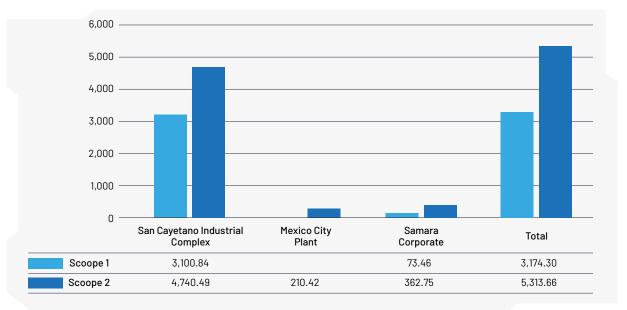


 
 Table 1. Genomma Lab Mexico's GHG emissions by Scope Source. Prepared by the company, 2024.

*Figure 1* shows 2023 GHG emissions from San Cayetano Industrial Complex, Mexico City Plant (Langosta production line) and Samara Corporate.



*Figure* 4 below shows each site's share of Scope 1 and Scope 2 emissions. San Cayetano Industrial Complex is responsible for 92.4% of total Scope 1 and 2 emissions, Mexico City Plant (Langosta) for 2.5%, and Samara Corporate for 5.1%. Total Scope 1 and 2 emissions amount to 8,487.96 tons of carbon dioxide equivalent.



Scope 2 emissions (5,313.66  $tCO_2e$ ) derive from electricity consumption at Samara Corporate, Mexico City Plant (Langosta) and San Cayetano Industrial Complex. *Table 2* shows Scope 2 emissions distribution by site.

#### Total GHG emissions. Period 2023.

Scope	Toneladas de CO <sub>2</sub> e	
San Cayetano Industrial Complex	4,740.49	_
Samara Corporate	362.75	5,313.66
Mexico City Plant (Langosta)	210.42	

Table 2. Genomma Lab Mexico's Scope 2 emissions.Source. Prepared by the company, 2024.

*Table 3* shows the distribution of the 3,174.3 tons of CO<sub>2</sub>e Scope 1 emissions:

#### Scope 1 - GHG emissions. 2023.

Fuel type	Source type	tCO₂e
Emissions from Natural Gas in process	Stationary	2,739.02
Emissions from Diesel in emergency plants	Stationary	0.20
Emissions from Diesel in own vehicles	Mobile	268.99
Emissions from Gasoline in own vehicles	Mobile	166.09

Table 3. Genomma Lab Mexico Scope 1 GHG emissions.Source. Prepared by the company, 2024.

Direct emissions from stationary sources accounted for 86% of total Scope 1 emissions, while mobile sources accounted for 14% of total Scope 1 emissions. *Figure 5* shows this distribution.

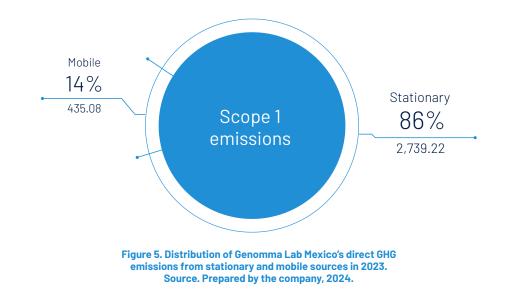


Table 4 shows the quantity of Scope 3 emissions per category, with numbers conforming to the categories specified by the GHG Protocol.

#### Scope 3 - 2023 GHG emissions

Category	tCO <sub>2</sub> e
🖗 1. Purchased Goods	34,851.56
3. Activities related to energy and fuels	1,963.64
(a) 4. Upstream transportation and distribution	510.06
💼 5. Waste generated in operations	201.05
6. Business travel (flights and car)	603.79
😤 7. Employee commuting.	322.08
9. Downstream transportation and distribution	5,622.95
Total	44,075.12

 Table 4. Scope 3 emissions breakdown by category for Mexico.

 Source. Prepared by the company, 2024.

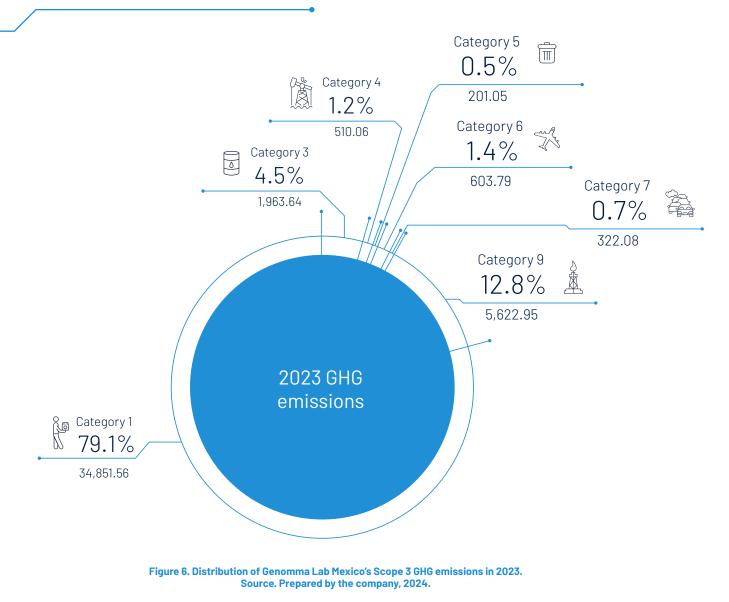
The following are some important considerations for Scope 3 emissions:

- Category 1: emissions are mainly from the purchase of packaging material and guava leaves, along with water consumption.
- Category 7: includes emissions from diesel consumption by buses hired to transport personnel. They also include emissions from a sample of Samara Corporate employees and Langosta Plant employees. It is important to note that, while some employees use up to three different means of transportation, emissions are calculated considering only the most frequently used form of transportation. Given the nature of the data in this category, it is expected that in future periods the calculation coverage can be expanded in more detail.

- Category 6: includes emissions resulting from both accommodation and air travel during 2023.
- Category 9: involves the ground transportation of finished goods using diesel vans, trailers, and boxcars.

In Genomma Lab Mexico, the activity that generates the most GHGs is found in category 1, purchased goods and services, which accounts for 79.1% of Scope 3 emissions. Category 9; transportation and distribution of products, ranks second in terms of emissions contribution with 12.8%. Category; which refers to those emissions not reported in Scope 1 and 2 related to purchased energy (electricity and fuels), comes in third with 4.5%. *Figure 6* shows the percentage distribution of Scope 3 emissions of reported categories.





To conclude this report, it is important to mention that adopting practices to quantify, report, verify and reduce GHG emissions is of utmost importance and relevance to Genomma Lab. This information allows for the identification of areas for improvement, which will lead to the design and implementation of strategies to understand and manage risks, as well as the competitiveness associated with GHG emissions levels. It is important to remember that what cannot be measured, cannot be managed.

Every year, Genomma Lab focuses on implementing effective reduction initiatives to enhance its operations and, ultimately, achieve a significant reduction in emissions and the associated impacts on its stakeholders.



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