



GENOMMA LAB INTERNACIONAL S.A.B. DE C.V.

Inventory of Greenhouse Gas (GHG) Emissions Genomma Lab Internacional 2016

April 2017

KPMG in Mexico



April 7, 2016

Lic. Rocío Lozano Córdova
Manager of Social Responsibility
Genomma Lab Internacional, S.A.B. de C.V.

Dear Rocío,

On behalf of KPMG Cárdenas Dosal, S. C. ("KPMG"), we thank Genomma Lab Internacional, S.A.B. de C.V. (hereinafter Genomma Lab) for the opportunity to support you in your "Genomma Lab Internacional Greenhouse Gas Emissions Inventory (GHG)" effort.

It is a pleasure for us to inform you that the calculation and preparation of the inventory of greenhouse gas emissions of 2016 for Genomma Lab has been concluded.

We appreciate the opportunity to present this work and we are at your disposal to attend any comments or concerns that might exist on the content of the same.

Yours faithfully,

KPMG Cárdenas Dosal, S.C.

Jesús González Arellano
*Partner in charge of Corporate Governance, Risk Management and
Sustainability Advisory - Risk Consulting*



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Profile of Genomma Lab

Genomma Lab Internacional S.A.B. de C.V. (hereinafter Genomma Lab) has distinguished itself as a Mexican pharmaceutical company with a strong focus on innovation and quality. In recent years, it has been dynamic and flexible, while strengthening the positioning of key brands in the national and international market.

Through the implementation of its *turn-around* strategy, in recent years it has been vigorously driving the positioning of its brands at international level, the restructuring of its operations and the establishment of mechanisms that increase the profitability of the business in the long term.

The value chain of Genomma Lab includes the development, promotion and sale of pharmaceuticals and personal care products, whose main objective is to improve the consumers' health and quality of life.

It is consolidated as one of the companies with the highest sales in the pharmaceutical and personal care sector of the country. In addition, several of its brands are positioned as the brands with the highest market share.

Currently, they have the following three main lines of business:

- OTC pharmaceuticals;
- Generic drugs; and
- Personal Care products.

Genomma Lab Internacional is one of the issuers of the Mexican Stock Exchange and is also part of the Sustainable IPC. As part of its compliance and transparency commitments, it submits to its stakeholders the following report, which sets out its inventory of greenhouse gas (GHG) emissions for the period January-December 2016.

The scope of this report covers the operations carried out in Mexico, as well as the following facilities:

Corporate Offices

Samara Building
Antonio Dovalí Jaime No. 70, Piso 2
Col. Santa Fe Del. Álvaro Obregón,
C.P. 01210 México, D.F

Distribution Centers (CEDIS)

Av. Industria Automotriz esquina
Industrial Pte. Lotes 3 y 5 Manzana
4 Ex Hacienda Doña Rosa
Lerma, Estado de México

Background and needs

The causes and impacts of climate change are a recurring topic in international dialogues. An example of this is the 22nd Conference of the Parties (COP 22), which was held in Morocco in November 2016, where the Governments of different countries ratified the Paris agreement and established support mechanisms for the mitigation and adaptation to climate change. The Sustainable Development Objective number thirteen of the United Nations calls for the international community to adopt urgent measures to combat climate change and its effects.



International companies are increasingly focusing on the measurement, reporting and verification of their greenhouse gases (GHG), among which carbon dioxide (CO₂) stands out because of its direct relation with climate change. Faced with this situation, countries like Mexico have joined voluntary initiatives to reduce these emissions.

GHG emissions are expressed in tons of carbon dioxide equivalent (CO₂e), a reference unit that expresses the impact of GHG gases in terms of CO₂. Due to the effects of climate change in ecosystem services, the temperature and the availability of natural resources, companies have been exposed to a variety of risks that threaten their sustainability in the long term. Some of the methodologies used by the organizations to quantify their impact on climate change are the following:

- **ISO 14064-1.** It contains the principles for the quantification, reporting and validation of greenhouse gases at the organizational level, as defined by the International Organization for Standardization (ISO).
- **Corporate Accounting and Reporting Standard of the GHG Protocol.** Guidelines developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) for the understanding, quantification, and control of carbon dioxide emissions.

Quantifying GHG emissions and disseminating the results can be relevant to any organization for the following reasons.

- 1 What is not measured cannot be controlled and what is not controlled cannot be improved.
- 2 Reputation is equal to action plus dissemination.

In June 2012, the General Law on Climate Change (LGCC, for its acronym in Spanish) was published in Mexico, which came into force in October of the same year. The law establishes, among other matters, the mechanisms for drawing up an inventory of GHG emissions according to the economic sector to which an organization belongs.

What are the Greenhouse Gases?

Greenhouse Gases (GHG) are the main cause of climate change. These are gases that, when released into the environment, remain in the atmosphere absorbing and emitting infrared radiation. The higher the concentrations of these gases, the higher the disturbances in global temperatures, because they do not allow the release of heat absorbed by the Earth from the sun rays.

While some GHG are emitted by natural processes, they can also be emitted to a greater extent by human activities. In fact, the main source of emission of these gases is associated with the consumption of fossil fuels. GHG have an atmospheric life which varies between one and 50,000 years, depending on their physical and chemical properties. This influences the global climate change, hence the importance of seeking the reduction of these gases.

The General Law on Climate Change (LGCC, for its acronym in Spanish), states the main GHG in terms of their impact on climate change. The Global Warming Potential (GWP) is used to define the amount of heat absorbed by each of these gases and to classify them according to their impact. The GWP of carbon dioxide is used as a reference for other gases, so this compound takes the value of one unit. As a result, the emissions of one metric ton of methane or nitrous oxide are 28 and 265 metric tons of carbon dioxide, respectively. **Table 1** shows the properties of GHG according to the Intergovernmental Panel on Climate Change (IPCC).

Table 1. Main greenhouse gases and their properties

Greenhouse gas	Chemical formula	Permanence in the atmosphere ¹ (years)	GWP (tCO ₂ e) ²
Carbon dioxide	CO ₂	50	1
Methane	CH ₄	12 to 15	21
Nitrous Oxide	N ₂ O	114	310
Black Carbon	BC	>1	900
Chlorofluorocarbons (CFCs)	CFC	50 o 100	<4,660 to13,900
Hydrofluorocarbons (HFCs)	Cx Hx Fx	1.4 to 270	<1 to 12,400
Perfluorocarbons (PFCs)	CX FX	2.6 to 50,000	<1 to 11,110
Sulfur hexafluoride	SF ₆	3,200	23,600
Nitrogen trifluoride	NF ₃	740	16,100
Hydrochlorofluorocarbons	HCFC	ND	<1 to 1,980
Halogenated ethers	HE	ND	<1 to 12,400
Halocarbon	xC	ND	<173 to 1,750

¹ IPCC, 2007.

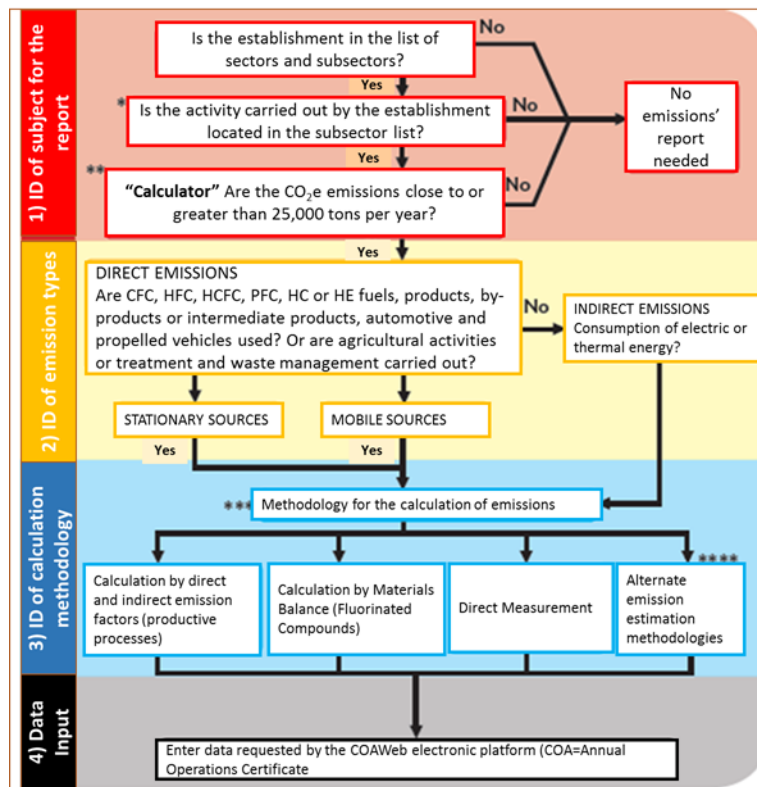
² IPCC, 2013.

Methodology and Limitations

This report follows the methodology established by the LGCC and the National Emissions Register (RENE) in establishing the stages, scope and technical topics of the tools used and the calculations made. In addition, we adjusted the methodology to other items of value for Genomma Lab.

In analyzing the specific situation of Genomma Lab, the nature of its operations, the industry where it operates and other similar factors, it is understood that there are aspects of the RENE methodology that do not apply to it. Direct measurement, material balance and alternative estimation methodologies are some examples (**Figure 1**).

Figure 1. Main aspects considered by the RENE methodology³



Selection of inventory limits

The first step in the methodology is the understanding of the legal and corporate structure of Genomma Lab, as well as the identification of its operations for the definition of the emission sources and the initial estimation of the generated emissions.

³ Image from the User Guide of the National Registry (RENE)

The LGCC establishes that companies with emissions of more than 25,000 tons of CO₂e must report their emissions to RENE. Companies with GHG emissions below this limit are not required to report them. Likewise, it is established that companies with different legal entities that issue less than the established limit and do not consolidate their information as a single entity, must present their report as independent legal entities.

It is our understanding that Genomma Lab seeks to generate an inventory of GHG emissions that complies with the legal specifications, but that also serves as a basis for the implementation of future management systems, thus seeking possible savings and positive effects on their environmental and economic performance, as well as generating value to its different stakeholders and reinforcing a positive reputation.

In this sense, this work is developed with the objective of complying with the LGCC and achieving a comprehensive CO₂ inventory of Genomma Lab, supporting the calculations based on the information provided by the legal entities responsible for the management of its resources.

It is possible that due to their amount of GHG emissions, some entities are not required to report to RENE.

Objective

This report presents consolidated information of the GHG emissions of Genomma Lab, considering international standards and the Agreement that establishes the technical peculiarities and formulas for the methodologies' implementation for the calculation of GHG emissions or compounds derived from the use of fossil fuels and electric energy (direct and indirect emissions), issued on September 3, 2015 in the Official Gazette of the Federation.

As a result of the application of this methodology, the inventory of CO₂ emissions is obtained. Genomma Lab can report its GHG emissions and establish the mitigation actions that it considers relevant. Also, the results are analyzed according to the parameters and variables considered.

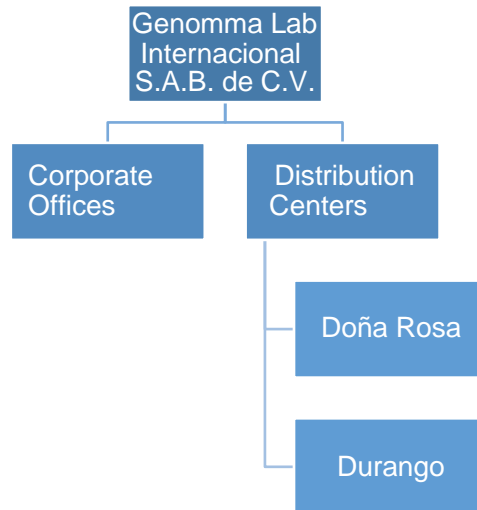
Scope

In order to meet the coverage criterion, including organizational and operational limits, the scope of Genomma Lab's GHG Inventory considers the recommendations of the Corporate Accounting and Reporting Standard, as revised in Mexico by the Ministry of the Environment and Natural Resources. Following, the characteristics of the limits considered.

Organizational limits

Organizational limits are defined by operations that are under the control of the company by ownership or operational control. Genomma Lab is formed by a corporate office and two distribution centers (see **Figure 2**). Both locations of the Group were considered within the calculation of CO₂ emissions according to their organizational structure.

Figure 2. Organizational limits of Genomma Lab*



*CEDIS Durango ceased operations in April 2016.

Operational limits

The operational limits are those that are related to the operations of Genomma Lab. Under this scope, the emissions are classified into: direct and indirect. Both have in common that they can be generated both inside and outside the facilities of Genomma Lab and that they are directly related to its operations.

- Direct emissions: are emitted by stationary or mobile sources that are under the direct control of Genomma Lab.
- Indirect emissions: are generated mainly from the consumption of electrical energy; they occur in facilities that are not property of Genomma Lab, but as they are related to their activities, they are allocated to the same.

The above mentioned emissions can be classified according to the following scope.

- Scope 1: direct emissions from sources under the control of the organization.
- Scope 2: indirect emissions generated by Genomma Lab operations.

- Scope 3: other indirect emissions generated by sources that are not owned by Genomma Lab, or that are not controlled by the company.

From the above classification, operations that generate direct or indirect emissions can be identified and which of the above should be included in the inventory of GHG emissions.

Understanding the organization and its operations

In order to carry out the Genomma Lab 2016 GHG Emission Inventory, information was requested on fuel consumption and electricity from the Corporate Office and the Distribution Centers. This was done through questionnaires where the evaluation criteria were specified and the emission sources were established.

Establishment of organizational and operational boundaries

Genomma Lab was asked for details on the profile of the facilities analyzed, in order to establish the level and classification of CO₂ emissions according to the organizational and operational limits described above.

Identification of emission sources

According to the information obtained from the operational areas of each facility, the Genomma Lab emission sources were identified. Data on the consumption of fuel and electricity requested from the personnel responsible for the administration took into consideration the emission sources previously identified.

Table 2 lists the main areas that provided information on the emission sources for the Genomma Lab 2016 GHG Emissions Inventory.

Table 2. Main areas and responsible person

Area	Person responsible	Organizational Profile	Scope 1:	Scope 2:	Scope 3:
Corporate Offices	Lic. Rocío Lozano Córdova, Coordinator of Corporate Social Responsibility	The completed questionnaire and supporting documentation (invoices and working papers) were provided.	Delivered	Delivered	This scope is not considered within the 2016 GHG Inventory.
Distribution Centers			Delivered	Delivered	

The methodology followed during the compilation of the information considered the following: (1) size of Genomma Lab Internacional in Mexico; and (2) nature of its operations (regions where it has a presence, number of employees and complexity of their operations). In that sense, a clear and specific questionnaire was designed to facilitate the calculation, taking care that the information is verifiable in the future and that it fulfilled the expectations of the regulation.

Likewise, the main strengths and opportunities by facility were identified based on the information provided. The analysis is included in the "Emission calculation" and "Findings and recommendations" sections of this report.

Calculation of emissions and analysis of results

KPMG in Mexico carried out the following activities based on the recommendations of the Corporate Accounting and Reporting Standard as revised in Mexico by the Ministry of the Environment and Natural Resources.

- Identification of emission factors used for the calculation of CO₂e emissions, defined by KPMG in Mexico based on the methodology used.
- Calculation of emissions and analysis of results. The results are included in the "Emission calculation" and "Findings and recommendations" sections of this report.

Consolidation of the emissions inventory

The information on the emissions inventory was consolidated based on a standard questionnaire for each of the Genomma Lab facilities; the information to be reported was required clearly and specifically. Consumption data were consolidated and standardized in a single analysis document, which was used as the basis to perform the necessary calculations for the inventory of GHG emissions.

Main activities and emission sources

The facilities considered in the calculation are part of the marketing and distribution chain of Genomma Lab's products. The main emission sources identified in each of these were the following.

- a) Diesel and LP gas consumption of power generation plants and canteens.
- b) Gasoline and diesel consumption of utility vehicles.
- c) Electricity consumption derived from the use of electronic equipment (computers, printers, screens, and luminaries), laboratory equipment and air conditioning.

Consumption by emission sources

The activities of Genomma Lab that emit more CO₂ are the consumption of fuels and electricity. Below is the breakdown of the consumption in liters per type of fuel and facility for 2016:

Table 3. Fuel consumption in 2016, in liters

	Gasoline	Diesel	LP Gas
Corporate Offices	16,824.51	-	-
Distribution Centers	23,117.60	74,567.50	19,359.10
Total	39,942.11	74,567.50	19,359.10

The detail of electricity consumption in 2016 of Genomma Lab is shown below.

Table 4. Electricity consumption in 2016, in kWh

	January	February	March	April	May	June	July	August	September	October	November	December	Annual
SAMARA	94,325	91,387	100,156	101,814	105,734	98,488	99,686	96,268	90,921	92,042	87,062	89,079	1,146,962
CEDIS	147,730	138,120	148,630	147,987	134,069	141,877	152,994	147,870	145,544	153,472	148,480	154,176	1,760,950
Total	242,055	229,507	248,786	249,801	239,803	240,365	252,680	244,138	236,465	245,514	235,542	243,255	2,907,912

It is important to mention that CEDIS electricity consumption includes information from CEDIS Doña Rosa and CEDIS Durango, considering that the latter ceased operations in April 2016.

Emission calculation

The calculation of emissions is based on the information presented in the section "Identification of emission sources", considering the organizational and operational limits defined above. The first comprises Corporate Offices and Distribution Centers. The second is comprised of emissions of scope 1 (direct emissions), such as consumption of diesel fuel, gasoline and LP gas, and of scope 2 (indirect emissions), such as electricity consumption. The GHG emissions inventory of Genomma Lab does not consider emission sources of scope 3.

The fuel consumption of the Corporate Offices is derived mainly from the gasoline used for the transportation of employees and utility vehicles. The CEDIS Doña Rosa uses gasoline and diesel to transport employees from various points in the metropolitan area of the Valley of Mexico as well as utility vehicles, while LP gas is used in gas stoves and other kitchen appliances in the canteens for employees.

Based on the methodology used, the sources were classified in stationary and mobile sources. Emissions from stationary sources include those derived from plants of electric power generation, emergency power plants and boilers; emissions from mobile sources are those that are associated with the use of vehicles for the transportation of personnel or material movement within the facilities. Following, the fuel consumption in liters in 2016 for mobile and stationary sources (Table 5 and 6).

Table 5. Fuel consumption of stationary sources in 2016, in liters

	Gasoline	Diesel	LP Gas
Corporate Offices	-	-	-
Distribution Centers	-	3,000.00	19,359.10
Total	-	3,000.00	19,359.10

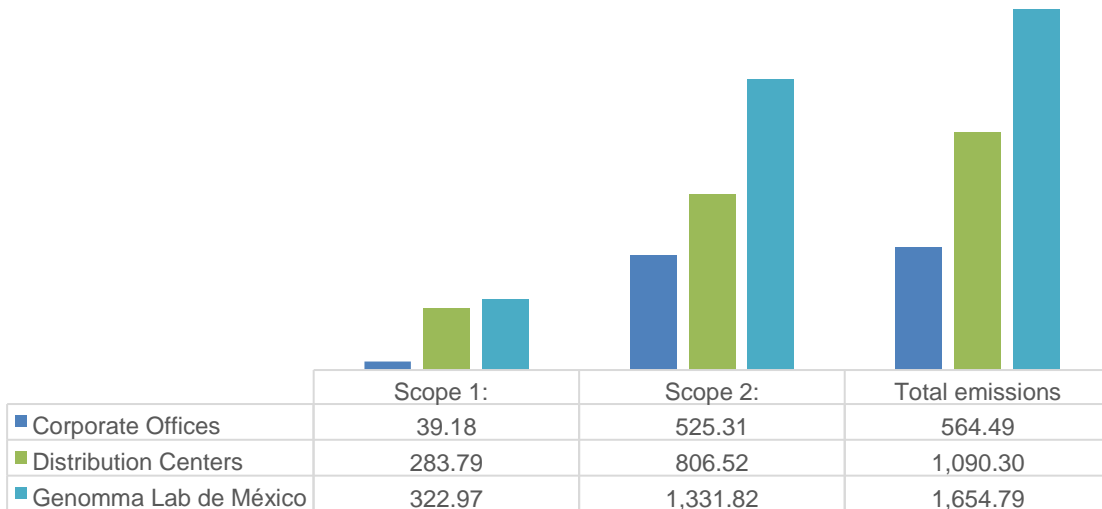
Table 6. Fuel consumption of mobile sources in 2016, in liters

	Gasoline	Diesel	LP Gas
Corporate Offices	16,824.51	-	-
Distribution Centers	23,117.60	71,567.50	-
Total	39,942.11	71,567.50	-

Emissions by Type of Consumption

Figure 3 shows the total emissions of Genomma Lab in 2016 and its breakdown in Scope 1 and Scope 2, as well as its distribution by facility. It can be noted that the CEDIS has a greater amount of emissions in Scope 1 and Scope 2, than the Corporate Offices.

Figure 3. Total Genomma Lab emissions in 2016 by scope, in tons of CO₂e



Scope 1 emissions per type of fuel and facility are shown in **Figure 4**. It can be noted that emissions from the Corporate Offices decreased by 70.8% with respect to 2015; the CEDIS, on the contrary, increased their emissions of CO₂ by 61.3%.

Figure 4. Breakdown of Genomma Lab emissions of Scope 1, in tons of CO₂e

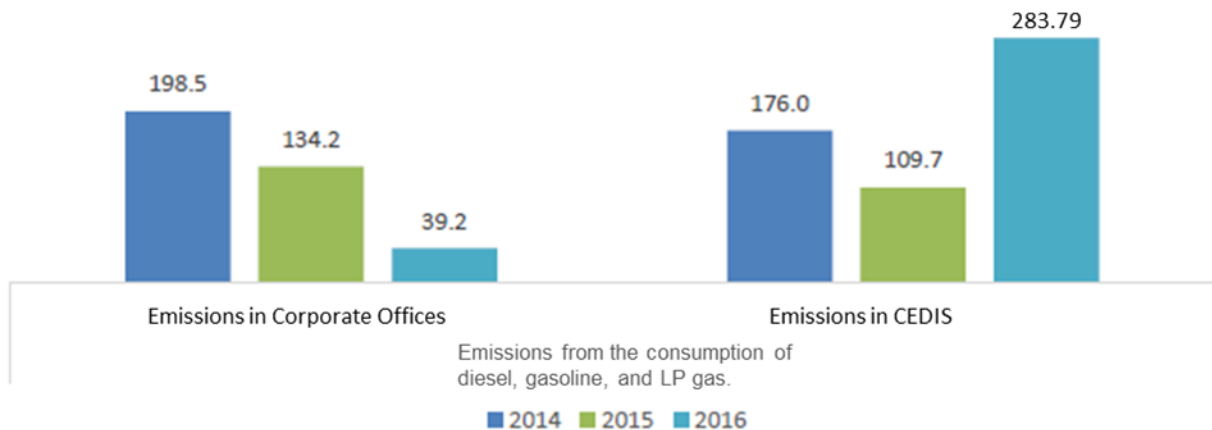
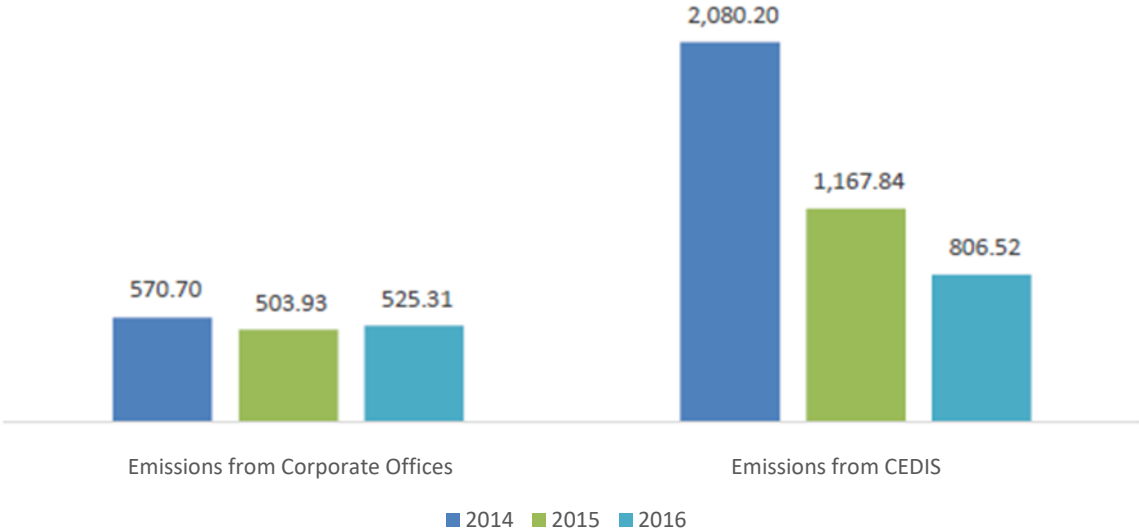


Figure 5 shows the emissions of Scope 2 from 2014 to 2016 per facility. CEDIS shows a significant decrease in its emissions, 30.9% in relation to 2015 and 61.2% in relation to 2014. Corporate Offices, on the other hand, increased their emissions by 4%.

Figure 5. Breakdown of Genomma Lab emissions of Scope 2, in tons of CO2e



Main Findings and Suggestions

In 2016, the total emissions of Genomma Lab were **1,654.8 tons of CO₂e**. Electricity consumption accounted for 80.5% of this total, reaching 1,331.8 tons of CO₂e. The remaining emissions, 322.97 tons of CO₂e, were generated by the consumption of fuels (diesel, gasoline and LP gas) in the Corporate Offices and CEDIS.

Also, Genomma Lab's Carbon Footprint decreased by 14% compared to 2015. This is due to a reduction in the consumption of electrical energy in the CEDIS, as the result of an energy efficiency program that involved, among other things, the replacement of conventional luminaries by LED lights.

Information management and preparation of documentation

Based on the above analysis, it can be noted that none of Genomma Lab's facilities are subject to reporting their GHG emissions to the RENE; however, considering this exercise as a voluntary effort, it is suggested to have all records that support the information used for the calculation of the GHG emissions inventory, so that in the future it can be verified by a third party. Formalizing the traceability of the information would facilitate the validation of the same.

It is suggested to continue to clearly identify the key positions and departments that are directly and indirectly related to the generation and revision of the information used to calculate the carbon footprint. It is also recommended to obtain calibration certificates for the measurement systems used in the calculation of the GHG emissions inventory.

General recommendations

It is suggested to consider the GHG inventory as part of an emissions management system that allows defining and achieving mitigation objectives. Based on the analysis performed, it is possible to establish operational targets for saving energy consumption and to follow up on the goals set in previous years.

It is recommended to include scope 3 emissions within the inventory calculation, based on the GHG emission inventory information of the main suppliers of Genomma Lab. In this way, the coverage is increased and a more comprehensive and real Environmental Footprint is presented.

Opportunities and specific suggestions by company

Corporate Offices

- Continue with the implementation of awareness-raising measures for energy savings.
- Enable the stand-by mode for all electronic devices and unplug them from the electric current once the working day ends.
- Implement eco-efficiency assessments when purchasing or replacing new electronic devices.
- Evaluate the replacement of conventional luminaries with LED light bulbs or more efficient models.

Distribution Centers

- Take advantage of solar energy through passive solar technology, which seeks to take advantage of sunlight without transforming it into another type of energy for immediate use.
- Implement an energy management system based on identification, control, validation and continuous improvement.
- Establish a maintenance program for utility vehicles and personnel transportation.
- Analyze the efficiency of electronic devices and the power factor of the facilities in order to identify areas for improvement.

Suggestion of best practices

- Include energy efficiency criteria and targets for reducing GHG emissions in the supplier audit program.
- Monitor kilometers traveled and fuel consumption of utility vehicles as part of the energy efficiency program.
- Keep the supporting documentation of the GHG inventory for future examination.
- Purchase electronic equipment with certificates of efficient energy consumption.
- In future years, ask suppliers to monitor their GHG emissions.
- Continue to strengthen a culture of low electricity consumption through awareness campaigns.
- Consider the assessment of Scope 3 emissions for future inventories.

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