GENTERA®

Gentera S.A.B. de C.V.

Greenhouse Gas Emissions Inventory

FY 2022

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CHAPTER 1

Introduction

Companies and activities

Gentera is a group of companies that work for financial inclusion, with the purpose of boosting people's dreams, with presence in Mexico and Peru. We offer products and services that meet the financial needs of millions of people, always with a human touch.

For more than 32 years, we have worked to provide opportunities that promote the development of people and their communities. Our value generation formula is the sum of social and human value, which results in economic value.

Our customers are at the center of all our actions, and they are the reason we are constantly looking to evolve the offering of financial products and services that we put at their reach, to fulfill their financial needs.

We believe in an inclusive financial sector that expands people's opportunities and drives social, human, and economic development.

Two of our companies are focused on offering financial services, in Mexico (Compartamos Banco) and in Peru (Compartamos Financiera).

Compartamos Banco

Financial institution with more than three decades of experience that offers access to individual and group credits for working capital, savings, insurance and transactional channels to microentrepreneurs.

Compartamos Financiera

Financial institution that offers credit, savings, insurance, and transactional channels to entrepreneurs.

Figure 1. Our companies and their presence

The remaining three companies are located in Mexico, and they are focused on the administration of a network of banking correspondents (Yastás), the granting of digital loans (ConCrédito), and the design and operation of microinsurance (Aterna). We also have Fundación Compartamos, the organization that inspires and encourages the social commitment of the group.

ConCrédito

Financial institution with 15 years of experience, which grants personal and revolving loans through digital platforms, transforming the lives of thousands of people throughout Mexico.

Yastás

Administrator of banking correspondents who provides access to financial transactions, service payments and cellphone top-ups in communities where banking infrastructure is limited or non-existent.

Aterna

It is the insurance agent specialized in serving the needs of the popular segment. It designs and operates prevention services for people to face the unforeseen events to which they are vulnerable. With operations in Mexico and Peru.

Fundación Compartamos

Organization that articulates the social commitment of Gentera by seeking to improve subsistence conditions in vulnerable populations. Its causes are Education and Early Childhood; It seeks to promote the integral development of communities, promoting a culture of volunteering and solidarity donation.

Environmental commitment

Caring for the environment is essential to continue boosting the dreams of our customers, employees, and other stakeholders from a sustainable perspective.

In this sense, we adhere to environmental regulations in Mexico and Peru in all of our operations, additionally we monitor our environmental performance to identify the negative impact that our financial processes or services may have on the environment, to define action initiatives:

- In Gentera's corporate offices in Mexico we conduct initiatives such as waste separation and awareness campaigns in this regard, proper management of electronic waste, cartridges and toners, and optimization in the use of water through savings systems in sinks and toilets.
- In addition, this building has LEED[1] Silver certification in the interior design category for its location characteristics, indoor environment quality, energy savings, water efficiency and waste management.
- We calculate the Greenhouse Gas (GHG) emissions generated by the Group.
- We recognize the possible impacts of climate change, therefore, with the aim of providing timely attention to our employees, customers, and communities in case of

[1] *LEED: Leadership in Energy and Environmental Design. It is a globally recognized initiative to certify sustainable buildings during their construction and operation.*

hydrometeorological phenomena such as hurricanes and floods, which have increased, we have a map of the most vulnerable locations where we have presence, for which we have financial provisions and a contingency plan.

- We provide information to our employees, customers and community about caring for the environment.

Liability for the emissions inventory

Since 2012 we have voluntarily prepared an annual inventory of Greenhouse Gas (GHG) emissions associated with our operations.

This inventory shows the results corresponding to the operations of Gentera and its companies during 2022, which we manage from the Directorate of Institutional Relations and Sustainability and elaborate in accordance with the following guidelines:

- Greenhouse Gas Protocol (GHGP) from the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).

- National Registry of Emissions (RENE, from its Spanish initials) in Mexico and its Regulations.

- Technical Guide to Carbon Footprint in Peru, supported by the Ministry of Environment.

- Guidelines of the Intergovernmental Panel on Climate Change (IPCC) of 2006 for GHG inventories (GL 2006).

- Report from Group I IPCC. Climate Change 2021: The Physical Science Basis. AR6.

- International Civil Aviation Organization (ICAO) Carbon Emissions Calculator.

- U.S. Environmental Protection Agency's Emission Factors for Greenhouse Gas Inventories.

- The Corporate Value Chain Accounting and Reporting Standard (Scope 3) of the Greenhouse Gas Protocol (GHGP).

CHAPTER 2

Description of the GHG Emissions Inventory

Objective and scope

The purpose of this inventory is to quantify the GHG emissions of Gentera and its companies, produced by our economic activities in the two countries where we operate; as well as to respond and inform our stakeholders about our operational performance and emissions generation.

We consolidated the information of our operations from January 1st to December 31, 2022.

Part of this information is related to the cost of some of the energy resources we consume. To allow comparison between the countries where we operate (Mexico and Peru)[2/3], we integrated a breakdown of the resulting costs for each of our emission sources. We only included those that come from the consumption of gasoline, diesel and electric energy, the cost in each of the sources is expressed in US dollars (USD), with an exchange rate of the local currency as of December 30, 2022.

[2]Exchange rate (19.3615 MXN/USD) determined by the Banxico, central bank in Mexico, based on an average of market prices as of 30 December 2022.
[3]Superintendencia de Banca, Seguros y AFP, from the Republic of Peru, weighted average exchange rate (3.8127 PEN/USD) as of 30 December 2022..

For the categorization of GHG emission sources, activities and operations are divided into the scopes of *Figure 2*.

Scope 1

- Generated in processes and activities due to fuel consumption from mobile sources.
- Generated in processes and activities due to fuel consumption from fixed sources.

Scope 2

- Generated during the production of electricity purchased by our organization.

Scope 3

- Generated by fuel consumption of land and air transportation of our employees.
- Generated by fugitive emissions of refrigerants.
- Generated by remote work of our employees.

Figure 2. Scope categorization for emission sources.

Organizational boundary

To define the organizational boundary of our inventory, we must select an approach that considers all the business units that are part of Gentera and its companies in the two countries where we have operations.

The GHG emissions presented in this report are under an **operational control** approach.

This means that in the companies and locations where we operate (defined in Chapter 1), we have full authority to introduce and implement policies related to emission sources and, therefore, operational control.

In addition to the places of operation, the Service Offices, motor vehicles and corporate buildings (CEAS) of the two countries where we operate, are part of this inventory.

Operational boundary

The information we considered for this inventory is related to our operations and activities necessary for the development of the products and services of Gentera and its companies.

To define an appropriate operational boundary, we established the emission sources of these operations and activities within the scope shown below.

Scope 1.
Direct GHG emissions

The emissions that we generate from the **direct consumption of fuels** for the development of the organization's activities.

These emissions can come from mobile or fixed sources. For the latter, also called stationary sources, the diesel consumption of the emergency plants of the facilities in Mexico and Peru was considered *(Table 1).*

Country	diesel consumption (liters)
Mexico	6,852.00
Peru	400.00
Total	7,252.00

Table 1. Annual diesel consumption by country, for scope 1 stationary sources

On the other hand, the emissions from mobile sources come from the consumption of fuel (gasoline) for cars and motorcycles used by our employees as part of the development of business activities.

For the estimation of liters of gasoline in Mexico, we used the amount of money allocated to the purchase of fuel and compared it with the average monthly price, in liters per gasoline, of all 2022, taken from official sources[4].

[4] *Energy Regulatory Commission (2023). Average National Daily Prices and Average Monthly Prices by Federal Entity of Gasoline and Diesel. https://www.gob.mx/cre/articulos/precios-vigentes-de-gasolinas-y-diesel*

For the estimation of liters of gasoline in Peru, we used a relationship between the monetary amount destined to the purchase of fuel and the average price of gasoline reported monthly by our suppliers of fuel vouchers.

Country	Fuel consumption (liters)	Cost (USD)
Mexico	2,897,609.97	3,381,883.44
Peru	162,356.12	236,192.95
Total	**3,059,966.10**	**3,618,076.38**

Table 2. Annual gasoline consumption by country, for scope 1 mobile sources

In *Table 2* we can see the liters of gasoline we consumed in the two countries where we operate, as well as the cost related to this consumption.

Scope 2. Indirect GHG emissions

This corresponds to the GHG emissions generated in the production phase of the **electricity** that we buy and consume to conduct the activities of the organization, within the facilities of Gentera and its companies.

Country	Electricity consumption (MWh)	Cost (USD)
Mexico	10,662.81	2,102,177.28
Peru	3,620.12	751,492.29
Total	**14,282.93**	**2,853,669.57**

Table 3. Annual electricity consumption by country, for scope 2

In *Table 3* we can see the amount of electricity we consumed, along with the total cost (excluding the cost of electricity from ConCrédito), in the two countries where we operate.

In Mexico, the amount of consumed electricity was obtained from the receipts of the distributor of the national electricity grid.

Meanwhile for Peru, the consumptions were estimated from the total cost of the service and the average cost of kilowatt hour (kWh), of the rate with greater representativeness in the operations of the company in the country (non-residential electricity rate in North Lima BT5B), to later be converted to megawatt hour (MWh).

Scope 3: Other indirect GHG emissions

In accordance with the Corporate Value Chain Accounting and Reporting Standard *(Scope 3)* of the Greenhouse Gas Protocol (GHGP), within this scope we considered those category 6 GHG emissions associated with business travel, which are calculated with emission factors according to the type of flight and the number of kilometers traveled *(Table 4)*. For the first time we integrated information about the business trips of our employees in Peru.

Neither emissions from accommodation, nor life cycle emissions associated with aircraft or infrastructure manufacturing are considered.

Type of Flight	Mexico	Peru
	Total km	
Short Haul	13,806.00	41,440.00
Medium Haul	5,989,745.10	1,237,240.00
Long Haul	2,181,590.00	455,545.00
Total	8,185,141.10	1,734,225.00

Table 4. Number of kilometers per flight type, by country

In accordance with the standard mentioned above, GHG emissions within category 7 are also included in this report, which are generated by the fuel consumption used by our employees to travel from their homes to the offices or vice versa; and for personal use, this as part of the benefits we provide (fuel vouchers) that are applicable to certain positions within our operations in Mexico.

For the estimation of liters of gasoline used for these purposes we used the amount of money allocated to the purchase of fuel as a provision and compared it with the average monthly price in liters per gasoline, taken from official sources and the monthly monitoring of our suppliers.

In Table 5 we can see the amount of fuel consumed by employees as part of the provision we offer. In Mexico, quantification of fuel consumption considered gasoline (premium and magna), while in Peru gasoline Gasohol 90[5] was considered.

[5] *Gasoline of 90 octanes and 7.8% volume of ethanol, marketed in Peru and regulated by the Ministry of Energy and Mines.*

Country	Fuel consumption (liters)	Cost (USD)
Mexico	233,481.93	272,503.43
Peru	13,583.21	19,804.46

Tabla 5. Consumo anual de combustible por país, como prestación

De igual manera se consideró el consumo de electricidad por colaborador, generado por la nueva dinámica de trabajo desde casa. Este se calculó considerando el tipo de equipo usado por los colaboradores y las horas de trabajo anuales (*Tabla 6*). Para el caso de México se consideraron los consumos de equipos de cómputo, monitores, módems e incluso focos, del área designada para trabajar desde casa, resultando las computadoras las responsables de mayor parte del consumo anual (Figura 3). Para el caso de Perú, solo se consideró el consumo de energía de las computadoras.

Country	Electricity consumption (MWh)	Cost (USD)
Mexico	640.18	287,640.00
Peru	78.57	70,560.00
Total	718.75	358,200.00

Table 6. Annual electricity consumption from remote work

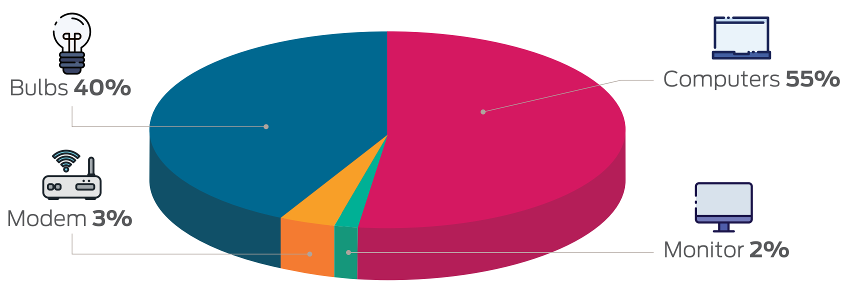

Figure 3. Percentage of contribution to annual electricity consumption by equipment, in Mexico

Moreover, for the first time GHG emissions from category 3 of refrigerant leaks were included for our operations in Mexico. This includes leaks in the HVAC systems, coolers, and refrigerators of our facilities. The maintenance provider of our refrigeration equipment performs the recharge of refrigerant gases, based on its information provided, the total consumption of refrigerants in 2022 was recorded, which can be seen in Table 7.

Country	Refrigerant consumption (kg)	
	R22	R-410A
Mexico	147.99	154.89
Peru	277.00	194.00
Total	**424.99**	**348.89**

Table 7. Annual refrigerant consumption in Mexico and Peru

Exclusions

Within the emissions corresponding to the mobility of collaborators, those associated with public transport used by employees to move from their homes to the offices and vice versa are excluded.

For the estimation of gasoline and electricity consumption in Peru, we omitted the reimbursements[6] within the databases corresponding to the reporting period.

[6] *Refund of a charge made to an account/center generated in a determined period.*

CHAPTER 3

Methodology

Mexico

Since the publication of the General Law on Climate Change (LGCC, from its Spanish initials), the creation of various public policy instruments was established, allowing the compilation of the necessary information on the emission of Compounds and Greenhouse Gases (C and GHG) from the different sectors of the country. This includes the National Registry of Emissions (RENE) and its Regulations, as well as the GHGP used for this emissions inventory.

Peru

For the calculation of GHG emissions in Peru we considered the Technical Guide to Peru's Carbon Footprint[7], which is supported by the Ministry of the Environment. This methodology is based on the 2006 IPCC Guidelines for GHG inventories[8], ISO 14064 and GHGP[9].

Reported Greenhouse Gases emissions

The GHGs considered in this report, according to the guidelines detailed in the methodologies for each of the countries in which we have operations (Mexico and Peru) are:

- Carbon dioxide (CO2)
- Methane (CH4)
- Nitrous oxide (N2O)

We report these GHGs in tons of carbon dioxide equivalent (tCO2e) based on their global warming potential, a measure that uses carbon dioxide (CO2) as a reference, to compare the impact of greenhouse gas emissions on global warming.

Emission factors, net calorific values, and global warming potentials

For the quantification of GHG emissions we used emission factors that allow a connection between the consumption of energy resources and operational activities, with the equivalent emission of GHG.

In accordance with the official regulations of each country and the information of the international methodologies in Chapter 3, below we show the selection of relevant emission factors.

For the normalization of emissions, we used the equivalent carbon dioxide unit (CO_2e). In this way we express GHG emissions in the same unit.

[7] *Ministry of Environment (2019). Technical Guide to the Carbon Footprint.*
[8] *IPCC (2006). 2006 IPCC guidelines for national greenhouse gas inventories.*
[9] *Greenhouse Gas Protocol (2005). Corporate Accounting and Reporting Standard.*

Table 8 shows the Global Warming Potentials (GWP) over a period of 100 years, taken from the IPCC Sixth Assessment Report (AR6)[10], which allows to standardize the emissions of methane (CH_4) and nitrogen oxide (N_2O) with the unit of carbon dioxide equivalent (CO_2e).

It is important to mention that this new report presents a difference in methane's warming potential. According to its origin, whether it comes from fossil sources or not, its level of impact on the atmosphere varies. For our carbon footprint, we considered the value of 29.8.

GHG	Chemical formula	GWP
Carbon dioxide	CO_2	1
Methane (fossil)	CH_4	29.8
Methane (non-fossil)		27
Nitrogen oxide	N_2O	273

Table 8. Global warming potentials

Although Mexican and Peruvian legislation do not stipulate the mandatory use of the most recent IPCC data, we considered AR6 data to report up-to-date and accurate information.

Table 9 shows the values used, by country, of the calorific value of gasoline, to determine the energy equivalence of fuel use.

Country	Calorific value	Units
Mexico[11]	5,613	MJ/bl
Peru[12]	112.93	MJ/galón

Table 9. Calorific values of gasoline

For the calculation of carbon dioxide (CO_2), methane (CH_4) and nitrogen oxide (N_2O) emissions, derived from the combustion of gasoline from vehicles, we used the following emission factors *(Table 10).*

Emission factors (kg/MJ)			
Country	(CO_2)	(CH_4)	(N_2O)
Mexico[13]	0.0693	2.5E^{-5}	8.00E^{-6}
Peru[14]	0.0693	3.3E^{-6}	0.60E^{-6}

Table 10. Gasoline emission factors for mobile combustion

For the calculation of carbon dioxide equivalent (CO_2e) emissions from electricity generation, we used the factors established by the government agencies in each country, which can be seen in *Table 11.*

Country	Emission factors (tCO_2e/MWh)
Mexico[15]	0.435
Peru[16]	0.4521

Table 11. Electricity emission factors

[10] *IPCC (2021). Climate Change 2021: The Physical Science Basis. AR6. Supplementary Material. Table 7.SM.7*

[11] *Secretariat of Energy (SENER)-Directorate General of Energy Planning and Information. List of Fuels and their calorific values 2022 that will be considered to identify users with a pattern of high consumption, as well as the factors to determine the equivalences in terms of barrels of oil equivalent*

[12] *Ministry of Energy and Mines (2020). Technical Report Legal Nº 151-2020-MINEM/DGH-DPTC-DNH.*

[13] *SEMARNAT (2015). Agreement establishing the technical particularities and formulas for the application of methodologies for the calculation of emissions of greenhouse gases or compounds.*

[14] *Ministry of Environment (2016) Guide Nº2: Preparation of the Annual Report on Greenhouse Gases, Energy Sector.*

[15] *SEMARNAT (February 2023). National electricity system emission factor 2022.*

[16] *Ministry of Economy and Finance (2021). Technical note for the use of social carbon pricing in the social evaluation of investment projects.*

CHAPTER 4

Results

Analysis of results

The total GHG emissions we quantified in our operations for 2022, considering all emissions within the three scopes, is equivalent to 17,420 tons of carbon dioxide equivalent (tCO_2e).

In *Table 12* we can see the distribution of emissions by scope. Of the total emissions, 33% are in Scope 1, 39% in scope 2 and 28% in scope 3.

Total GHG emissions ($t CO_2 e$)			
Country	**Mexico**	**Peru**	**Total**
Scope 1	7,409.61	318.83	7,728.44
Scope 2	4,638.32	1,636.66	6,274.98
Scope 3	2,222.33	1,194.57	3,416.90
Total	**14,270.26**	**3,150.06**	**17,420.32**

Table 12. Total GHG emissions by scope and country

In *Figure 4* we show the contribution of each country to the emissions generated in the year, within each reported scope.

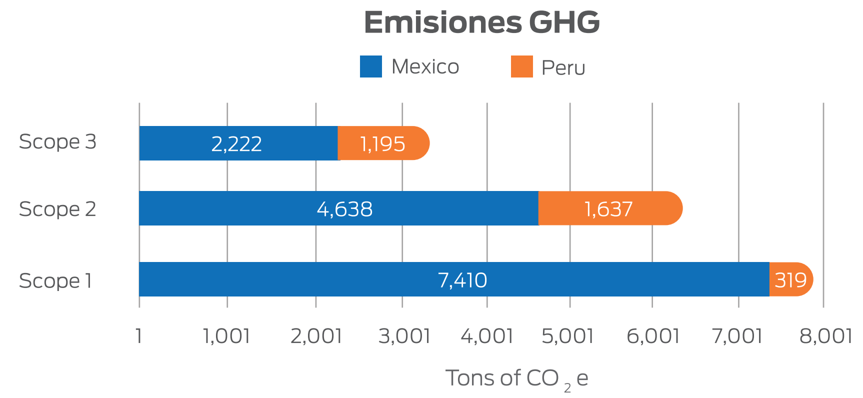

Figure 4. Emissions contribution by country and scope

Mexico comprises the largest generation of emissions, being responsible for 81.92% of the total generated. While in Peru the emissions generated are equivalent to 18.08% of the total *(Figure 5).*

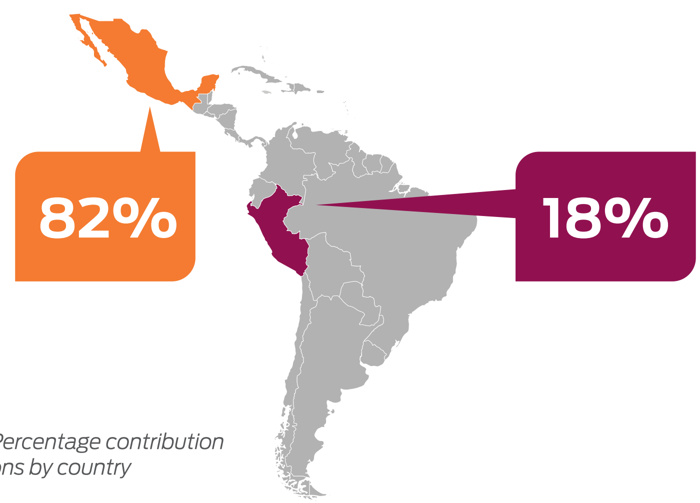

Figure 5. Percentage contribution of emissions by country

Scope 1. Direct GHG emissions

Scope 1 emissions, corresponding to direct emissions, are linked to the use of fuel (gasoline) in cars and motorcycles for operational purposes, as well as the use of fuel for emergency plants.

Table 13 details the scope 1 GHG emissions, of the last three years by country[17], considering the emissions of the reporting year[18] .

GHG emissions Scope 1 (t CO_2 e)				
Country	**2020**	**2021**	**2022**	**Change**
Mexico	3,904.00	3,441.00	7,409.61	115%
Peru	1,159.00	931.39	318.83	-66%
Total	**5,063.00**	**4,372.39**	**7,728.44**	**77%**

Table 13. Comparative 2020-2022 of emissions scope 1, by country

In scope 1, our operations in Mexico are responsible for 9.6% of the emissions generated, while operations in Peru represent 4%.

Compared to last year, in 2022 we had a 115% increase in emissions for Mexico and a 66% reduction for Peru. While accounting for the total emissions of both countries, we found that there was a total increase of 77%.

It is important to emphasize that the pandemic caused by the SARS COV2 virus (COVID-19), influenced our operations in recent years. From 2021 onwards, on-site activities began to be reactivated and stabilized in 2022, so a percentage of the increase in emissions related to fuel consumption is due to the increased mobility.

Scope 2. Indirect emissions

In Table 14 we can see the indirect emissions generated by the consumption of purchased electricity. In 2022, in Mexico emissions remained almost the same, while in Peru there was an increase of 15%.

Scope 2 GHG emissions (t CO_2e)				
Country	**2020**	**2021**	**2022**	**Change**
Mexico	6,118.00	4,677.00	4,638.32	-0.8%
Peru	1,886.00	1,424.00	1,636.66	15%
Total	**8,212.00**	**6,101.00**	**6,274.98**	**2.8%**

Table 14. Comparative 2020-2022 of emissions scope 2, by country

It should be noted that, for Peru, as of 2020 we started to use an updated emission factor from the National Interconnected Electric System (SEIN). In addition, the emissions were calculated from the

17 For comparative purposes, information from Guatemala is not included even though it was part of Gentera until 2020.

18 In 2022 the IPCC global warming potential values were updated. However, the historical results of 2020 and 2021 were not updated, so a percentage of the increase in emissions in 2022 is due to this update of metrics.

consumption of electricity with tariff specifications of northern Lima and a BT5B consumption rate, which is the most representative rate of our centers.

Finally, within the total variation we can see an increase in indirect GHG emissions of 2.8%, mostly caused by the reactivation of on-site activities.

Scope 3. Other indirect emissions

As mentioned in the inventory description, our scope 3 emission sources come from air travel by our employees; gasoline vouchers granted as a benefit to employees of certain positions in Mexico; electricity consumption by the home office modality; and refrigerant leaks in HVAC systems and refrigerators in the facilities.

During 2022, our employees had flights inside and outside of Mexico, these trips were divided into three types of flights, as shown in *Table 15*. Together they accumulated 9,919,336.10 kilometers and had an emission of 860.81 tCO_2e.

Type of flight	Total km	$t CO_2 e$
Short Haul	4,545	0.59
Medium Haul	1,053,616	86.50
Long Haul	592,414	59.77
Total	**1,650,575**	**146.86**

Table 15. Emissions generated by type of flight taken by employees.

For the second source, related to the provision of fuel vouchers, the calculation considered gasoline (premium and magna) consumption for Mexico and gasoline Gasohol 90 for the case of Peru.

The consumption and amount of GHG emissions estimated by these benefits is shown in *Table 16.*

Country	Total liters	$t CO_2 e$
Mexico (Gasoline)	233,481.93	594.49
Peru (Gasohol 90)	13,583.21	26.55
Total	**247,065.14**	**621.04**

Table 16. Emissions generated by fuel consumption, by transfer of employees

On the other hand, for the consumption of electricity by home office, a total of 718.75 MWh was consumed, generating an emission of 314 tCO_2e (*Table 17*).

Country	Electricity consumption (MWh)	$t CO_2 e$
Mexico	640.18	278.48
Peru	78.57	35.52
Total	**718.75**	**314.00**

Table 17. Emissions generated by electricity consumption, from working from home

Finally, *Table 18* shows the total emissions due to refrigerant leaks in the maintenance of our air conditioning and refrigeration equipment, where a total of 1,619.90 tCO_2e.

Country	t CO_2 e
Mexico	639.41
Peru	980.49
Total	**1,619.90**

Table 18. Emissions from refrigerant leaks

Employee emissions

Within each report we seek that the reported data provide us with more information about our environmental performance, which is why we include the KPI of emissions intensity in tCO_2e per employee, in order to show an individualized metric on how each employee contributes to the carbon footprint of Gentera and its companies.

Country	Nº of employees by country		
	2020	2021	2022
Mexico	16,181	15,427	16,516
Peru	5,352	4,779	5,188
Total	**22,366**	**20,206**	**21,704**

Table 19. Comparative 2020-2022 of employees by country

Table 19 shows that there was an increase in the number of employees. This in turn caused the estimated emissions per employee to increase in both countries *(Table 20)*.

Country	t CO_2 e per employee		
	2020	2021	2022
Mexico	0.79	0.57	0.86
Peru	0.57	0.49	0.61

Table 20. Comparative 2020-2022 of estimated emissions per employee

Costs associated with emissions

Once we have recorded the total tCO2e emitted, we make a relationship between costs and annual emissions to have an annual comparison of the efficiency in our processes and operations.

In Table 21 we show the cost per tCO_2e from our consumption of gasoline, and electricity (excluding the cost of electricity from ConCrédito) in the countries where we operate.

Country	USD / t CO_2 e
Mexico	456
Peru	509

Table 21. Amount spent per ton of CO_2e

Social cost of our emissions

We estimate the social cost generated by our GHG emissions to internalize the negative effects that the externalities of our operation can have on society and the environment[19].

We found that the social cost of our total emissions for the countries where we have a presence is USD $ 749,073.91, this being the cost that would remedy the repercussions that our emissions can have on society (Table 22).

Country	Social cost of CO_2e (USD)
Mexico	613,621.30
Peru	135,452.61
Total	**749,073.91**

Table 22. Social cost of total emissions generated by Gentera, by country

[19] *The social cost of carbon reflects the damage generated by CO2 emissions to the society throughout its life. Three different models are used (DICE, FUND and PAGE) and five scenarios, which yield a total of 10,000 estimates. The estimate used considers changes in net agricultural productivity, human health, property damage due to increased flood risk, and the value of ecosystem services due to climate change and varies by discount rate (which determines the present value of future climate change damage).*

A discount rate of 3% has been chosen to reflect the future impact of climate change. The Environmental Protection Agency (EPA) provides a range of 39 to 112 USD2017/ton of CO2. New evidence suggests that "black swan" scenarios (low probability of occurrence, high impact) will occur more frequently than expected. Therefore, it is recommended to include the highest impact value (of 112 USD2017 / ton of CO2) for the social costs of carbon in decision-making

CHAPTER 5

Conclusions

In this report we consolidated GHG emissions from business operations and activities from three scopes, established in the relevant international and national methodologies.

In scope 1 we considered emissions from mobile sources (gasoline from cars and motorcycles) related to the operation of the business, as well as the fuel used in the emergency plants of our facilities. In scope 2, indirect emissions corresponding to our electricity consumption were quantified. In scope 3 we included indirect emissions from various sources related to the continuity of our operations, for example, the mobility of our employees, i.e., corporate flights and transport by car and motorcycle derived from the provisions of the business; electricity consumption of equipment used to work from home, and refrigerant leaks from the cooling and refrigeration systems of our facilities.

Our total carbon footprint is concentrated in scope 1 and 2. These two scopes represent the mobility of our employees for direct business activities and the use of electrical energy for our operations.

While in Mexico the percentage of emissions corresponding to scope 1 and 2 are the predominant ones, with 52% and 33% respectively, in Peru there is a higher concentration of scope 2 and 3 emissions, being 52% and 38% of its total footprint, respectively.

In this way, the overall largest source of emission of Gentera is generated by the consumption of electrical energy, and the second largest source of emission is the consumption of gasoline in cars and motorcycles that employees use to conduct activities of the organization.

We continue our efforts to deepen quantification of direct and indirect emissions generated by our activities. In both countries we were able to identify and estimate scope 3 emissions from four different sources, with work-from-home emissions and refrigerant leaks being a new addition to our 2022 footprint calculation.

In our operations in Mexico, we maintain an adequate collection of information. We monitor electricity consumption without cost estimates, we obtain a flight log and try to estimate our gasoline consumption with official sources. In this way we can calculate a reliable value of GHG emissions of the country.

On the other hand, there are challenges in the collection of information related to our fuel and electricity consumption in both markets. Derived from this, we decided to make estimates based on the expense for the different consumptions of electricity and gasoline. This can generate a variation in emissions in each scope and therefore in our total emissions.

In Peru, our emissions calculation faces other challenges when collecting gasoline and electric power consumption data. The figures of resources consumed are obtained through estimates, so the results may vary.

Nevertheless, it is important to emphasize efforts to improve information collection related to GHG emission sources. This year, we were able to add refrigerant leaks, home-office power consumption and the integration of ConCrédito's activity to our calculus. This information has contributed considerably to the increase in GHG emissions we report for 2022.

An external reason that caused GHG emissions to vary is the adoption of new global warming potentials, based on the latest IPCC report on the physical basis of climate change.

Therefore, the emissions we show for this year present a good point of comparison with 2021, but since the results of both years have been changed by new work dynamics and a long process of transition to a hybrid work modality, these should not be used to represent the usual operations of Gentera and its companies.

CHAPTER 6

Opportunities for improvement

Each year we seek to improve the monitoring, compilation, and reporting of relevant information for the calculation of our carbon footprint and evaluate the significance of the emission sources identified in our GHG emissions reports.

To achieve this, we have defined a series of key recommendations that are related to the implementation of mobility logs, obtaining updated data, and preparing a disaggregated and more detailed report.

To improve the traceability of information on the mobility of our employees, we will identify and collect monthly information on the change in fuel prices in the regions where we operate. Working closely with our suppliers to obtain fuel consumption data in liters.

In addition, due to the complication in obtaining updated emission factors for Peru, we will evaluate the registration and use of the State's tool: Huella de Carbono Perú, to report our emissions. With this registry we hope to obtain updated data while contributing to the national effort to record and measure emissions.

Finally, we will promote the quantification of emissions by company, to allow a more detailed analysis, establish a baseline and be able to establish medium-term reduction targets according to the findings.

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Annex 1:

Formulas for the calculation of emissions

Formulas obtained from the 2006 IPCC for national greenhouse gas inventories - Volume 2 and Volume 3.

Scope 1 and 3 GHG emissions: Calculation of mobile combustion emissions

Calculation of energy consumption: It consists of estimating fuel consumption in TJ.

$$\text{Consumption } TJ_\alpha = \sum (\text{FuelConsumption} \times VCN_\alpha)$$

Where:

TJα	Consumption in TJ, per year, by type of transport fuel
FuelConsumption$_\alpha$	Fuel consumed in each transport by type (gal, m^3, t).
VCN$_\alpha$	Net caloric value per fuel type.

Calculation **CO_2, CH_4 and N_2O** emissions

$$\text{GHG Emissions } CO_2\ \alpha = \text{Consumption}_\alpha \times EF_\alpha$$

$$\text{GHG Emissions } CH_4\ \alpha = \text{Consumption } TJ_\alpha \times EF_\alpha$$

$$\text{GHG Emissions } N_2O\ \alpha = \text{Consumption } TJ_\alpha \times EF_\alpha$$

Where:

GHG Emissions CO_2 α	CO_2 emissions by fuel type (α) in tCO_2/year
GHG Emissions CH_4 α	CH_4 emissions by fuel type (α) in tCO_2/year
GHG Emissions N_2Oα	N_2O emissions by fuel type (α) in tCO_2/year
Consumption TJ_α	Consumption in TJ by fuel type (α)
EFα	Emission factor by fuel type

GHG Emissions

$$= \text{Emissions } CO_2 + \text{Emissions } CH_4 \times GWP\ CH_4 + \text{Emissions } N_2O \times GWP\ N_2O$$

Where:

GHG emissions	GHG emissions, expressed in t of CO_2
GWP	Global warming potential by GHG type: CO_2, CH_4 and N_2O

GHG emissions Scope 2: Calculation of emissions from electricity consumption

Calculation of GHG emissions: It consists of estimating the emissions of each GHG, generated by the consumption of electrical energy.

GHG Emissions by electricity consumption
= Electricity consumption × EF_{GHG}

Where:

Electricity consumption
It represents the consumption of electricity; this electricity is generated by a third party and is expressed in kWh/year or MWh/year.

EF_{GHG} Emission factor per electricity consumption, by GHG type: CO_2, CH_4 and N_2O

GHG emissions Scope 3: Calculation of emissions from stationary combustion

GHG emissions Scope 3: Calculation of emissions from stationary combustion

$$\text{Consumption } TJ_{\alpha} = \sum (\text{FuelConsumption}_{\alpha} \times VCN_{\alpha})$$

Where:

TJα Consumption in TJ, per year, by type of fuel for stationary combustion sources

$\text{FuelConsumption}_{\alpha}$ Fuel consumed in each source by type (gal, m^3, t).

VCN_{α} Net caloric value per fuel type.

Calculation of **CO_2, CH_4 and N_2O** emissions

GHG Emissions $CO_2\alpha$ = Consumption TJ_{α} × EF_{α}

GHG Emissions $CH_4\alpha$ = Consumption TJ_{α} × EF_{α}

GHG Emissions N_2O α = Consumption TJ_{α} × EF_{α}

Where:

GHG Emissions CO_2 α CO_2 emissions by fuel type (α) in tCO_2/year

GHG Emissions CH_4 α CH_4 emissions by fuel type (α) in tCO_2/year

GHG Emissions $N_2O\alpha$ N_2O emissions by fuel type (α) in tCO_2/year

Consumption TJ_{α} Consumption in TJ by fuel type (α)

EFα Emission factor by fuel type

GHG Emissions

= Emissions CO_2 + Emissions CH_4 × GWP CH_4
+ Emissions N_2O × GWP N_2O

Where:

GHG emissions GHG emissions, expressed in t of CO_2

GWP Global warming potential by GHG type: CO_2, CH_4 and N_2O

GHG emissions Scope 3: Calculation of refrigerant bank emissions representing fugitive emissions

Calculation of GHG emissions: It consists of estimating GHG emissions, generated by fugitive emissions in cooling equipment.

$$\textbf{GHG Emissions} = \text{Net consumption} \times EF_{\alpha}$$

Where:

GHG emissions	GHG emissions, expressed in t of CO2
Net consumption	Estimation of the number of refrigerant refills
EFα	Emission factor by type of refrigerant compound

Formulas obtained from the Greenhouse Gas Protocol, Technical guidance for calculating Scope 3 emissions.

GHG Emissions Scope 3: Calculation of emissions from air transport of employees for business-related activities.

Calculation of GHG emissions: It consists of determining the distance traveled during the trip for which an appropriate emission factor can be applied, considering the mode of transport used.

$$\textbf{GHG Emissions} = \sum \text{distance} \times EF_{\text{(type of flight)}}$$

Where:

GHG emissions	GHG emissions, expressed in t of CO2
Distance	Total sum of the distance travelled by type of transport used (km, mi, etc.)
EF $_{\text{(type of flight)}}$	Emission factor by type of flight, considering that there are short, medium, and long-haul flights (($kgCO_2e$ /pax-km)).

Annex 2:

Calculation of the distance, in kilometers, of flights

For the estimation of kilometers travelled by the flights made in both countries in the year of the report, we made some assumptions to obtain the total calculation of kilometers traveled. For the following flight records, we did not find in our databases direct flights within the ICAO Emissions Calculator, therefore we had to use commercial flights between the two airports, assuming an intermediate stopover.

We considered the intermediate commercial stopover and obtained the result of kilometers in the ICAO Emissions Calculator. Below is a table with the flights where we made this estimate, as well as the stopovers we used.

Route	Proposed stop-over
ACA-OAX	Stopover in MEX
ACA-QRO	Stopover in MEX
BJX-CUL	Stopover in MEX
BJX-PVR	Stopover in MEX
BOS-ATL	Stopover in CLT
CEN-GDL	Stopover in MEX
CEN-MXL	Stopover in MEX
CEN-TI	Stopover in MEX
CIX-PIU	Stopover in LIM
CIX-TRU	Stopover in LIM
CJS-CUL	Stopover in CUU
CJS-CUL-CJS	Stopover in CUU
CJS-MXL	Stopover in MEX

Route	Proposed stop-over
CLO-PTY	Stopover at BOG
CPE-MID	Stopover in MEX
CTM-VSA	Stopover in MEX
CUL-BJX	Stopover in MEX
CUL-HUX	Stopover in MEX
CUL-MLM	Stopover in TIJ
CUL-MXL	Stopover in MEX
CUL-OAX	Stopover in MEX
CUL-PXM	Stopover in MEX
CUL-SLP	Stopover in MEX
CUL-TAM	Stopover in MEX
CUL-TGZ	Stopover in MEX
CUL-VSA	Stopover in MEX

Route	Proposed stop-over
CUL-ZCL	Stopover in MEX
CUN-CUL	Stopover in MEX
CUN-OAX	Stopover in MEX
SHEEP-HUX	Stopover in MEX
CUU-TI	Stopover in MTY
DGO-MTY	Stopover in MEX
DGO-TII	Stopover in MEX
DGO-TRC	Stopover in MEX
GDL-CEN	Stopover in MEX
GDL-HUX	Stopover in MEX
GDL-OAX	Stopover in MEX
GDL-TRC	Stopover in MEX
HMO-TGZ	Stopover in MEX
HUX-CUL	Stopover in MEX
HUX-SHEEP	Stopover in MEX
HUX-GDL	Stopover in MEX
HUX-TI	Stopover in MEX
LAP-SJD	Stopover in GDL
LIM-GDL	Stopover in MEX
LMM-SJD	Stopover in MEX
MEX-CTG	Stopover in MDE
MEX-CTG-MEX	Stopover in MDE
MEX-LMM-MZT-MEX	Stopover in LPZ

Route	Proposed stop-over
MEX-TII-MXL-MEX	NHSAE Stopover in GDL
MEX-YWAM	Stopover in BOG
MEX-VSA-MTT-MEX	NHSAE Stopover in MEX
MEX-YUL	Stopover in YYZ
MEX-YYZ	Stopover in CUN
MID-MZT	Stopover in MEX
MID-TAP	NHSAE stopover in MEX
MTT-MID	Stopover in MEX
MTT-VER	Stopover in MEX
MTY-BJX-SLP-MTY	Stopover in MEX
MTY-MEX-AGU-ZCL-MEX-MTY	NHSAE stopover in MEX
MTY-SJC	Stopover in GDL
MXL-CEN	Stopover in MEX
MXL-CJS	Stopover in MEX
MXL-CUL	Stopover in MEX
MXL-SHEEP	Stopover in HMO
MXL-LAP	Stopover in MEX
MXL-TGZ	Stopover in MEX
MXL-TIY	Stopover in MEX
MZT-SJD	Stopover in MEX
NLU-TI	Stopover in MTY
OAX-ACA	Stopover in MEX
OAX-CUL	Stopover in MEX

Route	Proposed stop-over
OAX-CUN	Stopover in MEX
OAX-GDL	Stopover in MEX
OAX-GDL-CUL	Stopover in MEX
OAX-TII	Stopover in MEX
PBC-TI	Stopover in MTY
PIU-CIX	Stopover in LIM
PIU-TBP	Stopover in LIM
PIU-PILLAR	Stopover in LIM
PVR-BJX	Stopover in MEX
PXM-ACA	Stopover in MEX
PXM-CUL	Stopover in MEX
PXM-TII	Stopover in MEX
QRO-MEX-TGZ-TAP-MEX	NHSAE stopover in MEX
QRO-VIEW	Stopover in MEX
SFO-CUL	Stopover in SJD
SJC-MTY	Stopover in GDL
SJD-CUL	Stopover in MEX
SJD-LAP	Stopover in GDL
SJD-LMM	Stopover in MEX
SJD-MZT	Stopover in MEX
SLP-CUL	Stopover in MEX
TAM-LMM	Stopover in MTY
TAM-MTY-VER-TAM	Stopover in MEX

Route	Proposed stop-over
TAM-MZT	Stopover in MEX
TAP-CUN	Stopover in MEX
TAP-GDL	Stopover in MEX
TAP-VIEW	Stopover in MEX
TBP-PIU	Stopover in MEX
TGZ-CUL	Stopover in LIM
TGZ-HMO	Stopover in MEX
TGZ-TAP	Stopover in MEX
TGZ-TII	Stopover in MEX
TGZ-VER	Stopover in MEX
TIJ-CJS	Stopover in MEX
TII-CUU	Stopover in GDL
TIJ-DGO	Stopover in MTY
TII-HMO	Stopover in MEX
His-HUX	Stopover in MEX
His-LMM	Stopover in MEX
TII-MXL	Stopover in MEX
His-NLU	Stopover in MEX
TII-OAX	Stopover in MTY
TIY-PBC	Stopover in MEX
TII-PXM	Stopover in MTY
TII-TAP	Stopover in MEX
TPQ-TII	Stopover in MEX

Route	Proposed stop-over
TRC-CUL	Stopover in MEX
TRC-GDL	Stopover in MEX
TRC-TIY	Stopover in MEX
TRU-CIX	Stopover in LIM
TRU-PIU	Stopover in LIM
YWAM-MEX	Stopover at BOG
SEE-CUL	Stopover in MEX
SEE-TAP	Stopover in MEX
VER-TGZ	Stopover in MEX
VSA-CUL	Stopover in MEX
VSA-MEX-CTG-MEX	Stopover in MDE
VSA-MEX-CUN	VISA-MEX-CUN
YYZ-YUL	Stopover in LGA
ZCL-SLP	Stopover in MEX

Table 23. Flights that required a proposed stopover

Annex 3:

Comparative consumption and emissions from 2018 to 2022

The following tables show the historical comparison from 2018 to 2022 of fuel consumption, electricity, total CO2e emissions, as well as emissions per employee and the total number of employees.

Consumption and emissions	2018*		2019		2020		2021		2022	
	Neto	Per employee	Neto	Per employee	Neto	Per employee	Neto	Per employee	Neto	Per employee
Fuel (Liters)	2,928, 740	134.46	2,081,241	135.58	2,198,112	98.27	2,098,428	103.85	3,307,031	152.37
Electric power (MWh)	17,222	0.79	19,830	0.87	17,087	0.76	14,206	0.70	14,283	0.66
Scope 1 emissions (t CO_2e)	7,110	0.33	7,690	0.34	5,330	0.24	4,372	0.22	7,728	0.36
Scope 2 emissions (t CO_2e)	9,008	0.41	8,936	0.39	8,212	0.37	6,101	0.30	6,275	0.29
Total scope 1 and 2 emissions (t CO_2e)	16,118	0.74	16,626	0.73	13,542	0.60	10,473	0.52	14,003	0.64

Table 24. Comparative of consumption and emissions from 2018 to 2022

**Emissions recalculated with Peru's updated electricity emission factor during the inventory exercise carried out in 2021.*

Employees	2018	2019	2020	2021	2022
	21,781	22,726	22,366	20,206	21,704

Table 25. Comparative of total employees from 2018 to 2022

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Annex 4:

Emissions by operation in Mexico and Peru

The following table presents the emissions generated by the activities of Mexico and Peru, broken down by type of operation.

Operation	Scope 1 emissions (t CO_2e)	Scope 2 emissions (t CO_2e)	Scope 3 emissions (t CO_2e)	Total emissions (t CO_2e)
Banco Compartamos	2,899	3,690	1,174.15	7,763
Compartamos Servicios	66	789	700.08	1,555
Yastás	557	•	60.05	617
Aterna	•	•	12.82	13
ConCrédito	3,888	159.52	229.36	4,277
Fundación Gentera	•	•	0.25	0.25
Gentera S.A.B	•	•	45.61	46
Compartamos Financiera	319	1,636.66	1,194.57	3,150
Total	**7,728**	**6,275**	**3,417**	**17,420**

Table 26. Emissions by type of operation in Mexico and Peru

**Compartamos Servicios/Yastás A1: only considers emissions from mobile sources.*
***Compartamos Servicios A3: Considers CEAS emissions.*

Operation	Energy Consumption (MJ)	Energy Consumption (kWh)	Energy Consumption (MWh)
Fuel (diesel)	276,393	76,776	76.78
Fuel (gasoline)	107,142,830	29,761,897	29,761.90
Electrical energy	•	14,282,928.75	14,282.93

Table 27. Energy consumption in MWh from non-renewable sources, scope 1 and 2

Gentera, S.A.B. de C.V.

Greenhouse Gas Emissions Inventory | FY 2022