GENTERA®

Gentera S.A.B. de C.V. Greenhouse Gas Emissions Inventory

Year 2021

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Annex

Chapter 1: Introduction

Companies and activities

Gentera is leader in financial inclusion. We are 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.

Our customers are at the center of all our actions and why we are constantly looking to evolve the offering of financial products and services 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). The remaining three are dedicated to the administration of a network of banking correspondents (Yastás), the granting of digital credits (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.

Figure 1. Our companies and their presence.

Compartamos Banco
Financial institution with more than 31 years of experience that offers access to credit for working capital, savings, insurance, and transactional channels to microentrepreneurs and entrepreneurs in Mexico.

Compartamos Financiera
Financial institution that offers credit, savings, and insurance to entrepreneurs in Peru.

ConCredito
Mexican company with 14 years of experience, which grants personal and revolving credits, with a digital operation, benefiting microentrepreneurs and end users.

Yastás
Bank commission agent administrator in Mexico that provides access to financial transactions, service payments and cellphone top-ups in communities where banking infrastructure is limited or non-existent.

Aterna
Insurance agent specialized in microinsurance, that promotes a culture of prevention in Mexico and Peru.

Fundación Compartamos
Organization that articulates the social commitment of the group. Its causes are Education and Early Childhood. It seeks to promote the integral development of communities.

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 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 plans:

- In Gentera's corporate offices in Mexico we conduct initiatives such as waste separation and awareness campaigns, proper management of electronic waste, cartridges and toners, and optimization in the use of water through saving systems in sinks and toilets.

- In addition, the building is LEED Silver[1] certified in the interior design category for its location characteristics, indoor environment quality, energy saving, water efficiency and waste management.

- We calculate the Greenhouse Gas (GHG) emissions generated by the Group.

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

- 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 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

We are aware that climate change is a reality, and we recognize the environmental impact that our activities generate in the countries where we operate. For this reason, since 2012 we have voluntarily prepared an annual inventory of GHG emissions associated with our operations.

This emissions inventory shows the results corresponding to the operations of Gentera and its companies during 2021, which we manage from the Directorate of External Relations and prepare 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 Emissions Registry (RENE, by its acronym in Spanish) in Mexico and its Regulation.

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

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

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

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

- 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, 2021.

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[2] and Peru[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 and electric energy, the cost expressed in each of the sources is indicated in US dollars (USD) with an exchange rate of the local currency as of December 31, 2021.

For the categorization of GHG emission sources, activities and operations are divided into the following scopes:

Generated from fuel consumption in processes and activities from mobile sources owned by our organization.

Generated during the production of electricity purchased by our organization.

Generated from fuel consumption for land(as a benefit for employees) and air transportation of our employees.

Figure 2. Scope categorization for emission sources

[2]*Exchange rate (20.4672 MXN/USD) determined by the Bank of Mexico based on an average of market prices as of December 31, 2021.*
[3]*Superintendency of Banking, Insurance and AFP, Republic of Peru, weighted average exchange rate (3.9734 PEN/USD) as of December 31, 2021.*

Organizational boundary

To define the organizational boundary of our inventory, we selected an approach that considers all the business units that are part of Gentera and its companies[4] in the two countries where we operate. 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.

The Service Offices, motor vehicles, motorcycles 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 the operations and activities necessary for the development of the products and services of Gentera and its companies.

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

[4]*Because during 2021 Gentera did not own the majority shareholding of ConCrédito and, therefore, did not maintain operational control over the entity, when Gentera and its companies are mentioned, the information related to ConCrédito is not considered.*

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 sources or fixed sources. The emissions from mobile sources that we consider in this scope were generated from the consumption of fuel (gasoline) of cars and motorcycles that are used by our employees as part of the development of business activities. There was no diesel consumption for power plants during the reporting year.

For the estimation of liters of gasoline in the operations of Mexico, we used the amount of money allocated for purchasing fuel and compared it to the average monthly price in liters per gasoline, obtained from official sources[5].

For the estimation of liters of gasoline in Peru, we used a relationship between the monetary amount allocated for purchasing fuel and the average price in the Province of Lima at the end of December 2021[6].

Country	Gasoline consumption (liters)	Cost (USD)
Mexico	1,439,533.57	1,471,373.16
Peru	443,575.69	483,166.65
Total	**1,883,109.26**	**1,954,539.81**

Table 1. Annual gasoline consumption per country for scope 1.

[5]*Energy Regulatory Commission (2023). Average Daily Prices National and Average Monthly Prices by Federal Entity of Gasoline and Diesel. https://www.gob.mx/cre/articulos/precios-vigentes-de-gasolinas-y-diesel*
[6]*Energy and Mining Investment Supervisory Agency (2021). Average fuel prices EESS/Taps and Gas Centers.*

In Table 1 we can see the liters of gasoline we consume in the two countries where we operate, as well as the cost related to this consumption.

Scope 2: Indirect GHG emissions

They correspond to the GHG emissions generated in the production phase of the **electrical energy** we purchase and consume to carry out the activities of the organization within the facilities of Gentera and its companies.

Country	Electricity consumption (MWh)	Cost (USD)
Mexico	11,057.19	1,802,704.31
Peru	3,149.20	603,973.57
Total	**14,206.39**	**2,406,677.88**

Table 2. Annual electricity consumption per country for scope 2.

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

In Mexico, the amount of electricity we consumed was obtained from the receipts of the distributor of the national electricity grid. Whereas for Peru, consumption was estimated from the total cost of the service and the average cost per kilowatt hour (kWh) of the rate with greater representativeness in the operations of the company in the country, 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 include emissions generated by the consumption of fuels by the air transportation taken by employees. Neither emissions from accommodation, nor life cycle emissions associated with aircraft or infrastructure manufacturing were considered.

Flight type	Total km
Short Haul	4,545.00
Medium Haul	1,053,616.00
Long Haul	592,414.00
Total	**1,650,575.00**

Table 3. Number of kilometers per flight type

In accordance with the standard mentioned above, GHG emissions within category 7 were also included in this report, which are generated by the consumption of fuel used by our employees to travel from their homes to the offices; as well as for personal use, which are 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 for purchasing fuel as a benefit and compared it with the average monthly price in liters per gasoline, obtained from official sources.

In Table 4 we can see the amount of fuel consumed by employees as part of the benefits we offer.

Country	Electricity consumption (MWh)	Cost (USD)
Mexico	215,318.78	220,081.20

Table 4. Annual consumption of gasoline in Mexico, as a benefit

Exclusions

Emissions from refrigerant leaks that are part of our scope 3 are not considered within this inventory. We have an integral maintenance service for our refrigeration equipment, in which refrigerant gases are recharged. The amount of gas refilled is not specified by the providers of this service, but we are working together to integrate the refrigerant refill figures into the next report.

During the year of the report, there was no consumption of diesel from fixed sources, such as emergency plants.

For the emissions corresponding to the mobility of our employees, those associated with the public transportation used by employees to move from their homes to the offices and vice versa, in other words, emissions from employees who do not have the corresponding fuel vouchers, are excluded.

For the estimation of gasoline and electricity consumption in Peru, we omitted the extortions[7] within the databases corresponding to the reporting period.

[7] *Return of a charge made to an account/center generated in a certain period.*

Chapter 3: Methodology

Mexico

Ever since the General Law on Climate Change (LGCC, from its acronym in Spanish) in Mexico was published, 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) of the different sectors of the country. This includes the National Emissions Registry (RENE) and its Regulation, and the GHG Protocol used for this emissions inventory.

Peru

For the calculation of GHG emissions in Peru we considered the Technical Guide of Carbon Footprint of Peru[8], which is supported by the Ministry of the Environment. This methodology is based on the 2006 IPCC Guidelines for GHG inventoriesu[9], the ISO 14064 and the GHG Protocol[10].

Greenhouse Gases Reported

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

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)

We report these GHGs in tons of carbon dioxide equivalent (tCO_2e) based on their global warming potential, a relative measure that compares the impact of greenhouse gas emissions on global warming, compared to carbon dioxide (CO_2), which is considered the reference gas.

Emission factors, net calorific value, and global warming potentials

For the quantification of GHG emissions we used emission factors to relate the consumption of energy resources and operational activities with the equivalent GHG emission.

In accordance with the official regulations of each country and the information of the international methodologies mentioned in Chapter 2, below we present the selection of relevant emission factors.

For the standardization of emissions, we used the unit of carbon dioxide (CO_2) equivalent. In this way we express GHG emissions in the same unit.

To determine this equivalence, we used the Global Warming Potentials (GWP), taken from the Fifth Assessment Report of the IPCC[11] (Table 5), which enables the relation of the emissions of methane (CH_4) and nitrogen oxide (N_2O) to the unit carbon dioxide equivalent (CO_2e).

[8] *Ministry of Environment (2019). Technical Guide to the Carbon Footprint.*
[9] *IPCC (2006). 2006 IPCC guidelines for national greenhouse gas inventories.*
[10] *Greenhouse Gas Protocol (2005). Corporate Accounting and Reporting Standard.*
[11] *Intergovernmental Panel on Climate Change (2014). Climate Change 2014 Synthesis Report.*

GHG	Chemical formula	GWP
Carbon dioxide	CO_2	1
Methane	CH_4	28
Nitrogen oxide	N_2O	265

Table 5. Global warming potentials.

We used the calorific value of gasoline to determine the energy equivalence of fuel use. Table 6 shows the calorific value used by country.

Country	Calorific value	Units
Mexico[12]	5,269	MJ/bl
Peru[13]	112.93	MJ/gallon

Table 6. Calorific value of gasoline.

For the calculation of emissions of carbon dioxide (CO_2), methane (CH_4) and nitrogen oxide (N_2O), derived from the combustion of fuel from vehicles, we used the following emission factors shown in Table 7.

Emission factors (kg/MJ)			
Country	(CO_2)	(CH_4)	(N_2O)
Mexico[14]	0.0693	$2.5E^{-5}$	$8.00E^{-6}$
Peru[15]	0.0693	$3.3E^{-6}$	$0.60E^{-6}$

Table 7. Gasoline emission factors for mobile combustion.

For the calculation of carbon dioxide equivalent (CO_2e) emissions from electric power generation, we used the factors established by government agencies in each country.

Country	Emission factors (tCO_{-2} e/MWh)
Mexico[16]	0.423
Peru[17]	0.4521

Table 8. Emission factors of electricity generation.

[12]*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*
[13]*Ministry of Energy and Mines (2020). Technical Report Legal No. 151-2020-MINEM/DGH-DPTC-DNH.*
[14]*SEMARNAT (2015). Agreement establishing the technical particularities and formulas for the application of methodologies for the calculation of emissions of greenhouse gases or compounds.*
[15]*Ministry of Environment (2016) Guide Nº2: Preparation of the Annual Report on Greenhouse Gases, Energy Sector.*
[16]*SEMARNAT (February 2022). National electricity system emission factor 2021.*
[17]*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 2021, considering all emissions within the three scopes, is equal to 11,134.51 tons of carbon dioxide equivalent (tCO_2e).

In Table 9 we can see the distribution of emissions by scope. Scope 1 includes 39% of emissions, 55% is in scope 2 and 6% in scope 3.

Total GHG emissions ($t\ CO_2\ e$)			
Country	**Mexico**	**Peru**	**Total**
Scope 1	3,441	931	4,372
Scope 2	4,677	1,424	6,101
Scope 3	662	NA	662
Total	**8,799**	**2,355**	**11,135**

Table 9. Total GHG emissions by scope and country

Figure 2 shows the proportion of emissions per scope within each country.

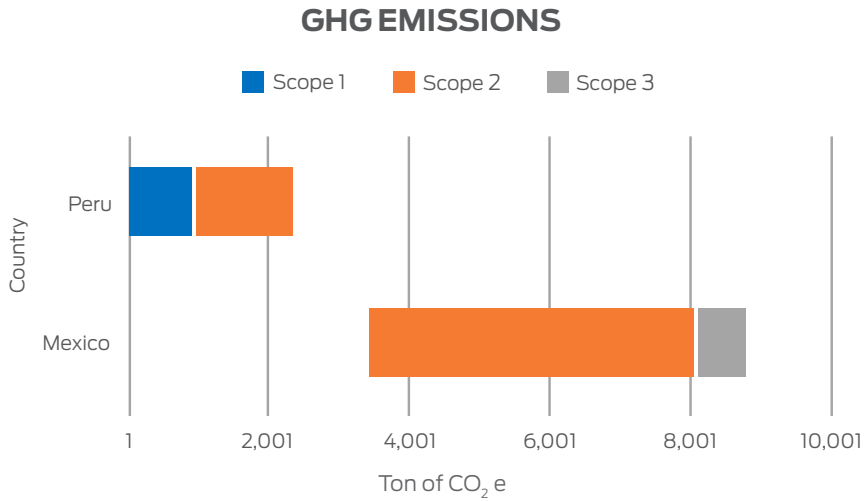

Figure 2. Contribution of emissions by country and scope

Figure 3 shows the emissions generated by country. Mexico comprises the largest generation of emissions, being responsible for 78.85% of the total generated. While in Peru the emissions generated are equivalent to 11.43% of the total.

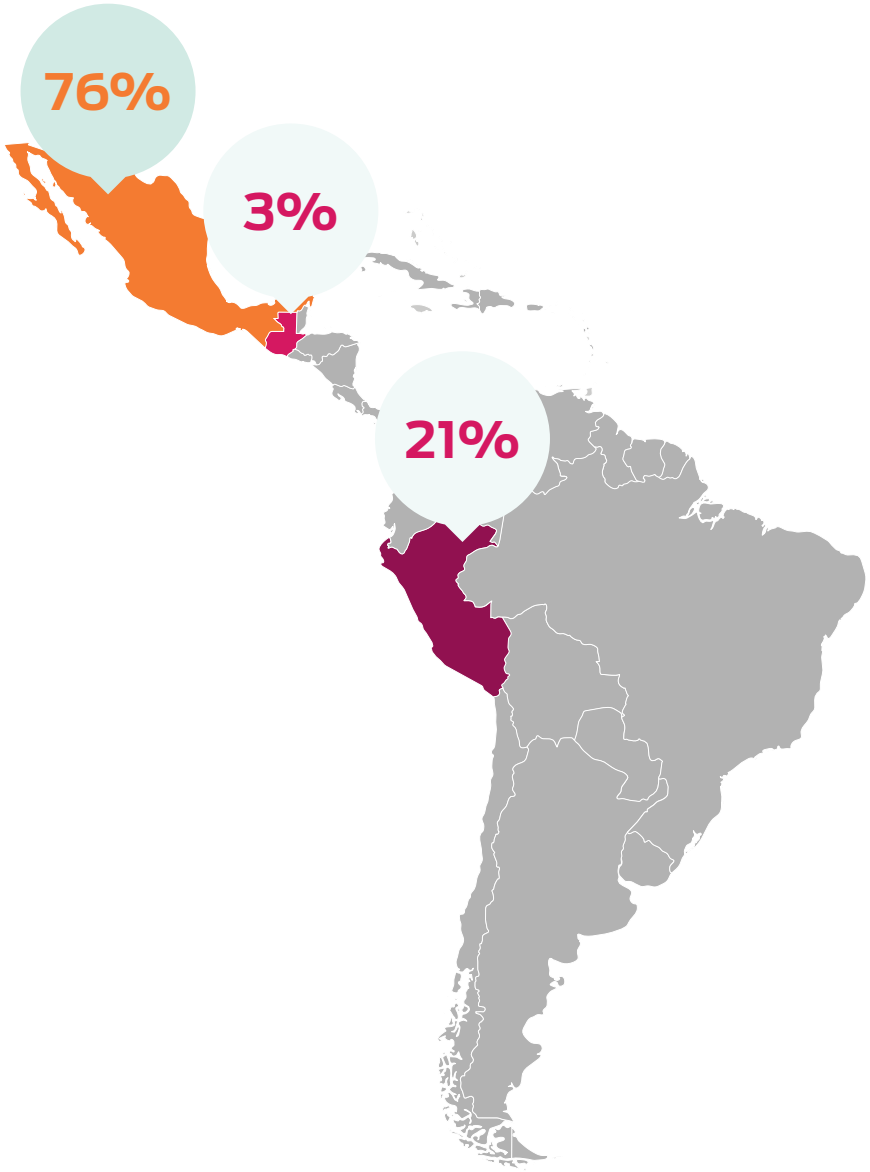

Figure 3. Percentage of emissions contribution by country

Scope 1. Direct GHG emissions

Scope 1 GHG emissions ($t CO_2 e$)				
Country	**2019**	**2020**	**2021**	**Difference**
Mexico	5,978	3,904	3,441	-12%
Peru	1,365	1,159	931	-20%
Total	**7,343**	**5,063**	**4,372**	**-14%**

Table 10. Comparative 2019-2021 of scope 1 emissions by country

For scope 1, our operations in Mexico are responsible for 7.9% of the emissions generated, while operations in Peru represent 2.1%. Compared to last year we had a reduction of 12% and 20% respectively in each country.

When comparing 2019 scope 1 emissions versus 2021, we found that there was a total decrease of 40%; in both countries, emissions were reduced, with Mexico experiencing the largest decrease at 42%.

It is important to emphasize that the pandemic caused by the SARS COV2 virus (COVID-19), had an effect on our operations in recent years, so a percentage of the decrease in emission is due to this context.

Scope 2. Indirect emissions

In Table 11 we can see the indirect emissions generated by the consumption of purchased electricity. For 2021 a considerable decrease is shown in the figures of Mexico and Peru, having a reduction of 24% and 25% respectively.

Scope 2 GHG emissions (t CO_2 e)				
Country	**2019**	**2020**	**2021**	**Difference**
Mexico	7,641	6,118	4,677	-24%
Peru	1,060	1,886	1,424	-25%
Total	**8,701**	**8,004**	**6,101**	**-24%**

Table 11. Comparative 2019-2021 of scope 2 emissions by country

It should be noted that for Peru, as of 2020 we started to use an updated emission factor corresponding to the National Interconnected Electric System (SEIN, by its acronym in Spanish). In addition, the emissions were calculated from the cost for the consumption of electricity, with tariff specifications of northern Lima and a BT5B consumption rate effective on December 4, 2021, as it is the most representative rate of our centers.

Finally, within the total variation we can see a reduction in indirect GHG emissions of 24%, mostly caused by the closure of some branches within the reporting period and due to the fact that this year Guatemala is not part of the boundaries of the inventory.

[27]Peru's Corresponding Scope 2 GHG Emissions in 2018 were recalculated, in accordance with what was mentioned in the 2019 financial year.

Scope 3. Other indirect emissions

Our most relevant sources of scope 3 emissions come from air travel by our employees and from fuel provisions granted as a benefit (see Table 13) to employees in certain positions.

During 2021, our employees made air trips inside and outside of Mexico, these trips were divided into three types of flights, as shown in Table 12. Together they accumulated 1,650,575 kilometers and generated 147 tCO_2e. emissions.

Flight type	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 12. Emissions generated by air travels by employees

The other source of emissions within scope 3, is related to the benefits given to our employees. Specifically, to the gasoline vouchers used by our employees, being Mexico the only country where we calculated the emissions of this category of scope 3.

The consumption and amount of GHG emissions estimated by these provisions is shown in Table 13.

Activity	Total liters	t CO_2 e
Gasoline	215,318.78	515
Total	**215,318.78**	**515**

Table 13. Emissions generated by the consumption of gasoline by transfer of employees in Mexico

Employee emissions

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

No. of employees by country			
Country	**2019**	**2020**	**2021**
Mexico	16,296	16,181	15,427
Peru	5,470	5,352	4,779
Total	**22,726**	**22,366**	**20,206**

Table 14. Comparative 2019-2021 of employees by country

Table 14 shows that there was a reduction in the number of employees, despite this, in Table 15 we can see that emissions per employee did not suffer an increase.

Country	**tCO_2e per employee**		
	2019	**2020**	**2021**
Mexico	0.84	0.79	0.79
Peru	0.44	0.57	0.49

Table 15. Comparative 2019-2021 of estimated emissions per employee

Costs associated to emissions

To have an annual follow-up of the cost that represents each tCO_2 emitted, we make a relationship between costs and emissions. In this way we have an annual comparison of the efficiency of our processes and operations.

In Table 16 we show the cost per tCO_2e from our consumption of gasoline and electricity in the countries where we operate.

Country	**USD/tCO_2e**
Mexico	405
Peru	462

Table 16. Amount spent per ton of CO2e

Social cost of our emissions

We estimated the social cost[18] of our GHG emissions to internalize the negative effects that the externalities of our operation may have on society and the environment.

We found that the social cost of our total emissions for the countries where we operate is US $472,468.82. This means that remedying the repercussions that our emissions may have on society would have this cost.

Country	Social cost of CO_2e (USD)
Mexico	371,197.65
Peru	371,197.65
Total	**472,468.82**

Table 17. Social cost of total emissions generated by Gentera by country

[18] *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 vehicles and motorcycles) related to the operation of the business. In scope 2 the indirect emissions corresponding to our electricity consumption were quantified. In scope 3 we considered 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.

Our 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.

In both countries where we operate, the same trend of concentration of emissions by scope is maintained. The largest source of emission is generated by the consumption of electrical energy. The second largest source of emissions is the consumption of gasoline in vehicles and motorcycles that employees use to carry out activities of the organization.

We continue our efforts to deepen quantification of the direct and indirect emissions generated by our activities. In Mexico we managed to identify and estimate scope 3 emissions, specifically on mobility of our employees.

There are challenges in the collection of information related to our fuel and electricity consumption in both markets. Thus, 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 our operations in Mexico, we maintain an adequate collection of information. We monitor electricity consumption without cost estimates, 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.

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

It is important to emphasize that during 2021, some of the activities and operations in the two countries were affected by the pandemic caused by the SARS COV2 virus (COVID-19), at least during the first half of the year. This generates abnormal behavior of our operations, consumption, and activities.

The emissions we show for this year should not be used to represent the usual operations of Gentera and its companies.

On the other hand, during 2021, several branches were closed in both countries, so the number of emissions generated for this year varies with respect to previous years.

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 control of refrigerant and fuel consumption, the implementation of mobility logs and the quantification of scope 3.

As for the control of consumption, we are working together with our air conditioning maintenance service providers, to obtain accurate measurements of refrigerant gas refills, establishing indicators and carrying out a detailed log control, so that we can quantify and include those GHG emissions from this source, within the next 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.

Finally, we will promote the quantification of scope 3 and assess its extension to the rest of our operations, in such a way that the breakdown of flights and their emissions generated within the two countries where we operate can be included, as well as the quantification of the emissions generated by the remote work of our employees.

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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 the fuel consumption in TJ.

$$\text{Consumption } TJ_{\alpha} = \Sigma \left(\text{Fuel Comsumption}_{\alpha} \times VCN_{\alpha}\right)$$

Where:

TJ_{α}	Consumption in TJ, per year, by type of transport fuel
$\text{FuelConsumption}_{\alpha}$	Fuel consumed in each transport by type (gal, m^3, t)
VCN_{α}	Net caloric value by fuel type.

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

$$\text{GHG Emissions } CO_2\,\alpha = \text{Consumptionm } TJ_{\alpha} \times EF_{\alpha}$$

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

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

Where:

GHG Emissions $CO_2\,\alpha$	CO_2 emissions by fuel type (α) in tCO_2 /year
GHG Emissions $CH_4\,\alpha$	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}	TJconsumption by fuel type (α)
EF_{α}	Emission factor by fuel type

$$\text{GHG Emissions} = \text{Emissions } CO_2 + \text{Emissions } CH_4 \times GWP_{CH4} + \text{Emissions } N_2O \times GWP_{N2O}$$

Where:

GHG emissions	GHG emissions, expressed in t of CO_2e
GWP	Global warming potential by TYPE of GHG: CO_2, CH_4 and N_2O

GHG emissions Scope 2: Calculation of emissions from electricity consumption

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

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

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 by electricity consumption, by type of GHG: CO_2, CH_4 and N_2O

GHG emissions Scope 3: Calculation of emissions from stationary combustion

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

$$\text{Consumption } TJ_{\alpha} = \Sigma \text{ (Fuel Comsumption }_{\alpha} \text{ x } VCN_{\alpha})$$

Where:

TJ_{α}	Consumption in TJ, per year, by type of fuel for stationary combustion sources
$FuelConsumption_{\alpha}$	Fuel consumed in each transport by type (gal, m^3, t)
VCN_{α}	Net caloric value by fuel type.

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

GHG Emissions CO_2 α= Consumptionm TJ_{α} x EF_{α}

GHG Emissions CH_4 α= Consumptionm TJ_{α} x EF_{α}

GHG Emissions N_2O α= Consumptionm TJ_{α} x 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_2Oα	N_2O emissions by fuel type (α) in tCO_2 /year
Consumption TJ_{α}	TJconsumption by fuel type (α)
EF_{α}	Emission factor by fuel type

GHG Emissions = Emissions CO_2 + Emissions CH_4 × GWP_{CH4} + Emissions N_2O × GWP_{N2O}

Where:

GHG Emissions	GHG emissions, expressed in t of CO_2
Net Consumption	Estimation of the number of refrigerant refills
EF_{α}	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.

GHG Emissions= Consumption TJ_{α}= Σ distance x $EF_{type\ of\ flight}$

Where:

GHG Emissions	GHG emissions, expressed in t of CO_2
Net Consumption	Total sum of the distance travelled by type of transport used (km, mi, etc.)
$EF_{type\ of\ flight}$	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 flight kilometers

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-QRO	Stopover in MEX
QRO-VIEW	Stopover in MEX
QRO-VIEW	Stopover in MEX
MEX-LMM-MZT-MEX	Stopover in MEX
TAM-LMM	Stopover in MEX
MTY-BJX-SLP-MTY	Stopover in MEX
CJS-CUL	Stopover in MEX
CJS-CUL-CJS	Stopover in MEX
DGO-MTY	Stopover in MEX
TAM-MTY-VER-TAM	Stopover in MEX
LMM-SJD	Stopover in MEX
MTY-MEX-AGU-ZCL-MEX-MTY	Stopover in MEX
MEX-VSA-MTT-MEX	Stopover in MEX
MEX-CTG-MEX	Stopover in MEX
MEX-CTG	Stopover in MEX
VSA-MEX-CTG-MEX	Stopover in MEX
MID-TAP	Stopover in MEX
MEX-TIJ-MXL-MEX	Stopover in MEX
QRO-MEX-TGZ-TAP-MEX	Stopover in MEX

Route	Proposed stop-over
CEN-TIJ	Stopover in MEX
CUN-OAX	Stopover in MEX
GDL-OAX	Stopover in MEX
LIM-GDL	Stopover in MEX
MEX-YUL	Stopover in MEX
TIJ-HMO	Stopover in MEX
His-LMM	Stopover in MEX
TIJ-OAX	Stopover in MEX
TPQ-TII	Stopover in MEX
TRC-TIY	Stopover in MEX
SEE-TAP	Stopover in MEX
TIJ-CJS	Stopover in MEX
OAX-CUN	Stopover in MEX
CPE-MID	Stopover in MEX
DGO-TRC	Stopover in MEX
MTT-VER	Stopover in MEX
MXL-TIY	Stopover in MEX
PXM-ACA	Stopover in MEX
TGZ-TAP	Stopover in MEX
TII-MXL	Stopover in MEX
ZCL-SLP	Stopover in MEX
OAX-TII	Stopover in MEX
SJD-CUL	Stopover in MEX
CLO-PTY	Stopover in MEX
BOS-ATL	Stopover in MEX
MTT-MID	Stopover in MEX
TAP-VIEW	Stopover in MEX
MEX-YYZ	Stopover in MEX
YYZ-YUL	Stopover in MEX

Table 18. Flights that required a proposed stopover

Annex 3:Comparison of consumption and emissions from the year 2017 to 2021

The following tables show the historical comparison from 2017 to 2021 of fuel consumption, electric energy, total CO2e emissions, as well as emissions per employee and the total number of employees.

Consumption and emissions	2017*		2018*		2019*		2020		2021	
	Net	Per employee	Neto	Per employee	Net	Per employee	Net	Per employee	Net	Per employee
Fuel (Litres)	2,955, 998	132.47	2,928, 740	134.46	2,081,241	135.58	2,198,112	98.27	2,098,428	103.85
Electric power (MWh)	17,637	0.79	17,222	0.79	19,830	0.87	17,087	0.76	14,206	0.70
Scope 1 emissions (t CO_2e)	7,184	0.32	7,110	0.33	7,690	0.34	5,330	0.24	4,372	0.22
Scope 2 emissions (t CO_2e)	9,564	0.43	9,008	0.41	8,936	0.39	8,212	0.37	6,101	0.30
Total scope 1 and 2 emissions (t CO_2e)	16,748	0.75	16,118	0.74	16,626	0.73	13542	0.60	10,473	0.52

**Emissions recalculated with Peru's updated electricity emission factor during the inventory exercise carried out in 2021.*
Table 19. Comparative of consumption and emissions from 2017 to 2021

Employees	2017	2018	2019	2020	2021
	22,315	21,781	22,726	22,366	20,206

Table 20. Comparative of total employees from 2017 to 2021

Annex 4: Emissions per operations in Mexico

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

Operation	Scope 1 emissions (tCO_2e)	Scope 2 emissions (tCO_2e)	Scope 3 emissions (tCO_2e)	Total emissions (tCO_2e)
Bank*	2,921	4,006	131.11	7,058
Administrative	291	671	518.54	1,481
Yastás	229	*	11.85	241
Total	3,441	4,677	662	8,779

Table 21. Emissions by type of operation in Mexico

*The emissions of scope 2 of Yastás and the total emissions of Aterna are considered within the heading "Administrative".
In scope 3 emissions, related to the use of cars by employees (as part of the benefits that certain positions have), the consumption of Aterna and Gentera are added to Administrative.

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