HIAS

Environmental Baseline

Year 2019
Waste, Water, & Greenhouse Gas Emissions

Environmental Baseline

Year 2019 Waste, Water, & Greenhouse Gas Emissions

Extreme flooding in Guyana

Welcome the stranger.
Protect the refugee.

Table of Contents

Background

HIAS is a non-governmental, not-for-profit organization that stands for a world in which refugees find welcome, safety, and opportunity. Drawing on our Jewish values and history, HIAS provides vital services to refugees and asylum seekers around the world and advocates for their fundamental rights so they can rebuild their lives.

Today humanity faces the challenge of sustaining an increasing number of environmental refugees due to climate change and environmental degradation. HIAS has demonstrated our commitment towards preventing future generations of climate refugees by signing the InterAction Climate Compact.

We have developed this waste, water, and greenhouse gas (GHG) emissions baseline to understand our current environmental impacts and track our future progress.

HIAS clients in Ecuador running natural businesses

Executive Summary

HIAS provides vital services to refugees and asylum seekers around the world, and we have demonstrated our commitment towards preventing future generations of climate refugees by signing the InterAction Climate Compact. HIAS developed this waste, water, and greenhouse gas (GHG) emissions baseline to understand the environmental impacts associated with our operations and to track our future progress.

Key Findings

- In the 2019 baseline year, HIAS consumed approximately **16,000 m³** (cubic meters) (4.2 million gallons) of water, generated **30,000 kg** (kilograms) (66,000 pounds) of waste, and was responsible for **2,800 MTCO₂e** (metric tons of carbon dioxide equivalents) of GHG emissions.[1] This is equivalent to:

HIAS Environmental Baseline

Water	Waste	GHG Emissions
270 m³/ $1 million Revenue	510 kg/ $1 million Revenue	47 MTCO₂e/ $1 million Revenue
27 L/ Person Reached	51 g/ Person Reached	5 kgCO₂e/ Person Reached

- HIAS water consumption in an office setting is approximately 59 L/person/day, compared to the US office average of 57 and the European office average of 36.

- Only about 20% of waste generation quantities are tracked by HIAS offices; therefore HIAS will use the following metrics for its waste baseline and to track waste-reduction progress:

---

[1] Values are reported with 2 significant figures to reflect the accuracy levels of the baseline calculations.

HIAS Waste Metrics - 2019 Baseline

Waste Metric	Number of HIAS Offices	Percent of HIAS Offices	Percent of HIAS Employees	Comments
Composting organic material	1	2%	4%	One US employee personally collected organics to compost
Recycling	3	6%	16%	US – paper Venezuela – cans & bottles
Regularly reusing materials	9	18%	14%	Reusing paper: -5 Ecuador offices -1 Kenya office -3 Costa Rica offices
Changed purchases to reduce packaging or waste	1	2%	4%	NY office provided dishes and silverware to reduce disposable waste.

- The largest contributions to HIAS' carbon footprint include:
    - Business travel (flights and ground transportation)
    - The embedded emissions in purchased goods and services
    - Electricity consumption
    - Employee commuting

HIAS GHG Emissions Sources
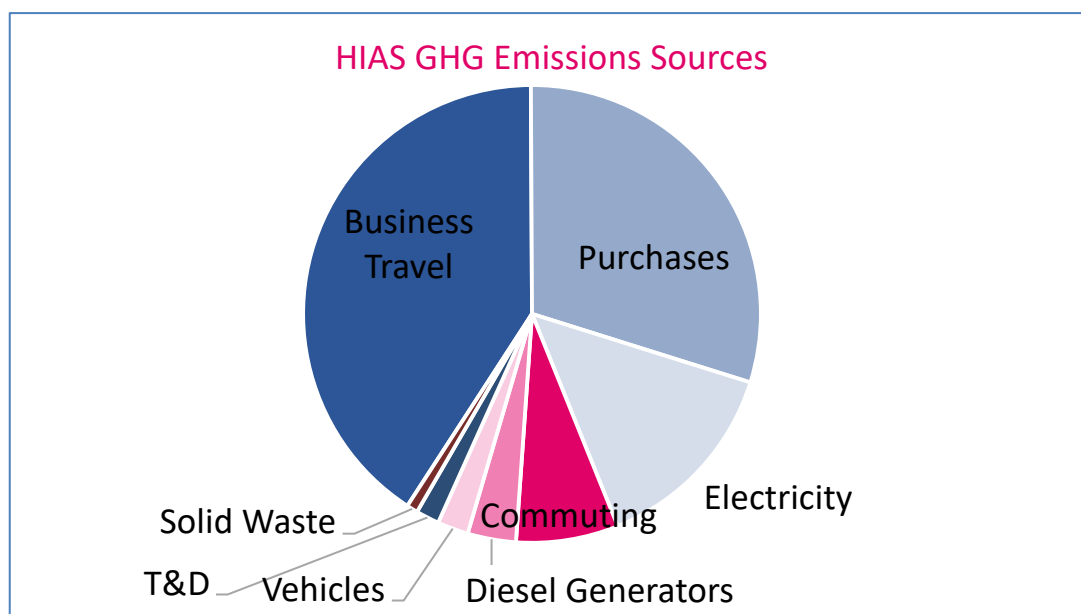
- The next largest emissions sources – diesel generators and HIAS vehicles – are direct emissions and HIAS may have greater opportunity to reduce them due to having more direct control over those sources.

- By the baseline year of 2019, HIAS had taken steps towards improving its environmental impact, including:

  o The formation of the HIAS Green Team to drive environmental sustainability efforts

  o Occupancy sensors that turn off lights (US, Venezuela)

  o Water capture from air conditioning units to use in bathrooms (Venezuela)

  o Paper shredding & recycling service (US)

  o Informal recycling through local staff member (Venezuela)

  o Reusable dishes in offices to reduce disposables (US)

  o Staff member collecting office organic waste to compost (US)

Clients in Chad preparing a permagarden, a strategy that will be useful in the face of climate change.

Recommendations and Next Steps

With this baseline, HIAS is now prepared to set reduction targets and begin prioritizing projects to improve our environmental impacts. The next steps include:

- o Identify and prioritize key strategies for improving environmental impacts.

- o Define reduction targets with timelines.

- o Implement a plan for continuously tracking environmental metrics.

- o Identify climate change risks to HIAS operations and "adaptation" strategies.

Reduction strategies will likely be centered around the following:

- Identifying low-carbon furniture & equipment suppliers, including investigating options for reuse and second-hand items.

- Screening consultants and legal service providers for low-carbon or net-zero operations (and requesting their Environmental, Social, and Governance (ESG) statements to verify.

- Investing in low-emitting and alternative energy vehicles.

- Investing in alternative electricity generation technologies such as solar panels.

- Identifying low-carbon business travel options.

- Purchasing renewable energy credits (RECs)

- Purchasing verified carbon offsets.

Key Results

In the 2019 baseline year, HIAS consumed approximately 16,000 m^3 (4.2 million gallons) of water, generated 30,000 kg (66,000 pounds) of waste, and was responsible for 2,800 MTCO$_2$e of GHG emissions. This is the "absolute" baseline from which HIAS will track future progress towards improving its environmental impact.

HIAS Environmental Baseline

Water	Waste	GHG Emissions
16,000 m^3	30,000 kg	2,800 MTCO$_2$e
75 L/ person/day	140g/ person/day	13 kg CO$_2$e/ person/day

Figure 1. HIAS Baseline – Absolute and Per Capita

As HIAS grows, we will serve more clients and have more employees; thus it is likely that our "absolute" consumption and emissions will grow, even if we begin to operate more efficiently. To track our progress as we grow, we will normalize our baseline across different factors including number of occupants (above), number of clients served, and revenue generated (below).

HIAS Environmental Baseline

Water	Waste	GHG Emissions
270 m^3/ $1 million Revenue	510 kg/ $1 million Revenue	47 MTCO$_2$e/ $1 million Revenue
27 L/ Person Reached	51 g/ Person Reached	5 kgCO$_2$e/ Person Reached

Figure 2. HIAS Baseline – Revenue Basis and Per Person Reached

Water Baseline

HIAS' total water consumption is 75L/person per day. The majority of HIAS offices are an office setting with typical workday hours, but one site (Safehouse) operates as a residential facility and uses much more water per capita than the other HIAS offices to meet the daily needs of the residents. This site alone uses approximately 162 L/person/day, less than the US average consumption of 379L/person/day and greater than the World Health Organization (WHO) minimum recommended access to water of 50-100 L/person/day.

All other HIAS offices are an office setting, so taking out Safehouse water use, all other offices together have a per capita use of approximately 59 L/person/day, compared to the US office average of 57 and the European office average of 36. This suggests an opportunity for reducing HIAS' water use, though a more detailed survey may be needed to determine the feasibility of water reductions and identify specific strategies relevant to HIAS operations.

It should be noted that water data was provided by the largest offices but was not readily available from all offices. Offices in Ecuador, Kenya, Chad, and the US reported water data which comprised approximately 75% of total consumption.[2] In many cases HIAS' water use was estimated because offices were part of a larger facility and HIAS' water use was not metered separately.

---

[2] The remaining 25% of water use was estimated based on occupancy and the water intensity of reporting offices.

Waste Baseline

More than 80% of sites do not have the ability to track waste data, and it is unlikely that they will be able to in the near future. Thus, tracking waste quantities will not a reasonable baseline metric. However, waste-reduction progress can be tracked by composting, recycling, reuse, and purchasing. The HIAS waste baseline is based on these factors and presented below.

Table 1: HIAS Waste Metrics – 2019 Baseline

Waste Metric	Number of HIAS Offices	Percent of HIAS Offices	Percent of HIAS Employees	Comments
Composting organic material	1	2%	4%	One US employee personally collected organics to compost.
Recycling	3	6%	16%	US offices shred and recycle paper. Venezuela Office informally recycles.
Regularly reusing materials	9	18%	14%	-5 Ecuador offices reuse paper -1 Kenya office reuses school supplies and equipment. -3 Costa Rica offices reuse paper and plastic bottles.
Changed purchases to reduce packaging or waste	1	2%	4%	NY office provided dishes and silverware to reduce disposable waste.

GHG Emissions Baseline

In 2019 HIAS operations contributed to the generation 2,800 MTCO$_2$e of GHG emissions – directly emitting some and indirectly causing the emission of others. The activities that generated these emissions are shown below in Figure 3 and Table 2 below.

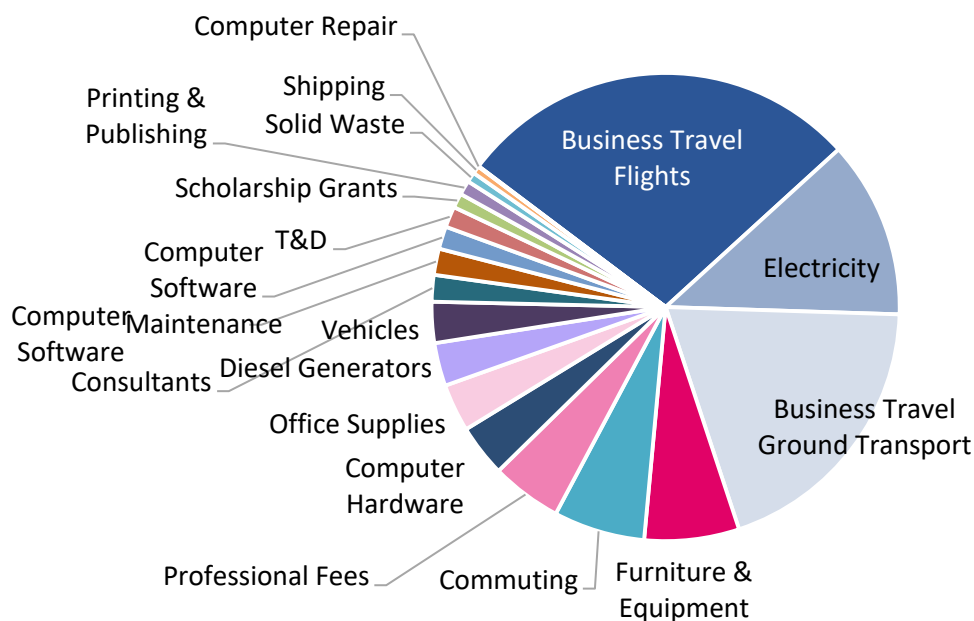### Figure 3. All HIAS GHG Emissions Sources - 2019

Table 2: All HIAS Emissions Sources - 2019

GHG Emissions Source	Emissions (MTCO$_2$e)
Business Travel Flights	774
Electricity	339
Business Travel Ground Transport	538
Furniture & Equipment	181
Commuting	175
Professional Fees	135
Computer Hardware	100
Office Supplies	91
Diesel Generators	83
Vehicles	78
Consultants	51
Computer Software	50

Computer Software Maintenance	43
T&D	40
Scholarship Grants	28
Printing & Publishing	28
Solid Waste	19
Shipping	15
Computer Repair	1

GHG accounting protocol requires that emissions are classified into three different categories to distinguish between emissions directly generated by an organization and those indirectly caused by the organization's operations.

Scope 1:   *Direct emissions from the organization's activities*
Scope 2:   *Emissions due to electricity or heating purchases*
Scope 3:   *Indirect emissions from value chain activities*

HIAS Scope 1, 2, & 3 Baseline GHG Emissions

Scope 1	Scope 2	Scope 3
• Diesel Generators • Vehicles	• Electricity from the grid	• Business Travel • Purchases • Employee Commuting • Waste Disposal • T&D Losses
160 MTCO$_2$e	340 MTCO$_2$e	2,300 MTCO$_2$e

T&D Losses are *transmission and distribution* losses of electricity as it travels from where it is generated to its final use point. Emissions associated with these losses are accounted for in Scope 3 emissions because they don't get factored into the amount used by the end-user but they are associated with the end-use.
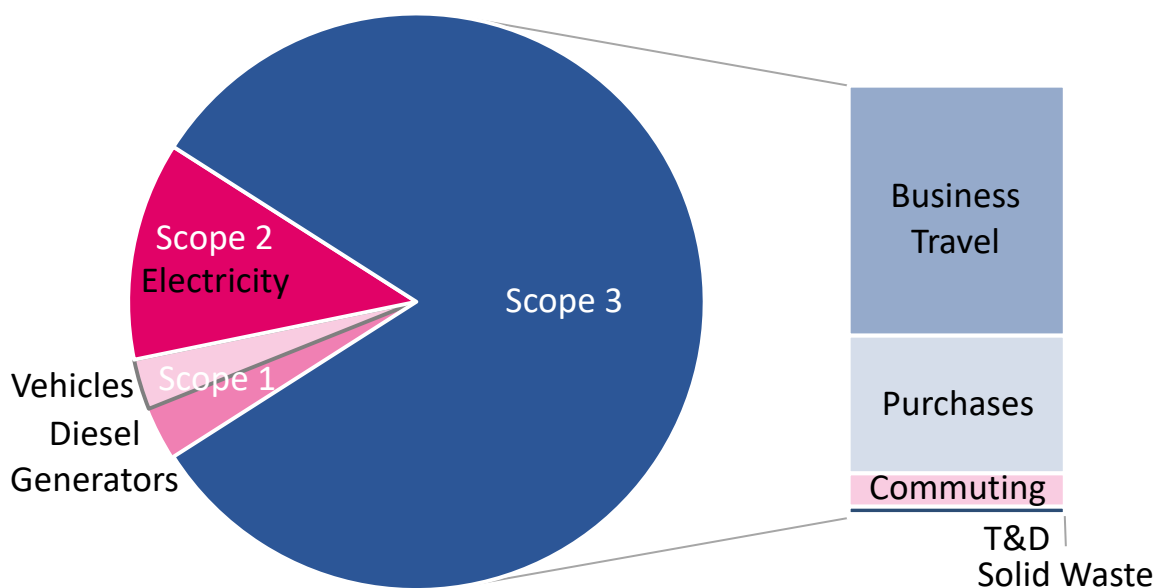
Figure 4. HIAS GHG Emissions - Scopes 1, 2, and 3- Baseline Year 2019

Scope 1 & 2 Emissions

An organization often has direct control in reducing Scope 1 & 2 emissions, for example by using alternative energy sources and alternative energy vehicles. For this reason, Scope 1&2 emissions are often reported together as shown below.

HIAS Scope 1&2 Baseline GHG Emissions

Scope 1&2	Scope 3
• Diesel Generators • Vehicles • Electricity from the grid	• Business Travel • Purchases • Employee Commuting • Waste Disposal • T&D Losses
500 MTCO$_2$e	2,300 MTCO$_2$e

Scope 3 (Indirect) Emissions

While Scope 1&2 emissions are often easier to reduce, Scope 3 indirect emissions make up the majority of HIAS' total emissions.

Because Scope 3 emissions are generated by the entities providing goods and services to HIAS, reducing these emissions often requires more careful purchasing decisions – identifying low-carbon providers and collaborating with current providers to report and reduce their emissions. Emissions from purchasing are comprised of different categories of purchases as shown below.

Table 3: Baseline Emissions from Purchases

Purchasing Category	Emissions (MTOC$_2$e)
Furniture & Equipment	181
Professional Fees	135
Computer Hardware	100
Office Supplies	91
Consultants	51
Computer Software	50
Computer Software Maintenance	43
Scholarship Grants	28
Printing & Publishing	28
Shipping/ courier/ deliveries	15
Computer Repair	1

Country Office GHG Emissions Contributions

Of the 50 HIAS offices operating in 2019 and represented in this report, the majority of operations take place in an office settings, with only one site in Kenya that reported as a residential setting. Most offices are leased spaces and share building space with other tenants. Some offices in Kenya, Chad, and Venezuela rely on water storage and/or back-up electricity generation due to unreliable supply of electricity or water. Some offices in Chad and Kenya rely solely on diesel generators for electricity. One office in Chad noted that the recent installation of solar panels eliminated electricity supply interruptions.

GHG emissions contributions from each country office are shown below, first ordered from highest per-person emissions to lowest, then ordered by total absolute emissions. Points to note include:

- **US offices** have the highest total absolute emissions and emissions per person reached, and the third highest emissions per person.
- **Venezuela** has the second highest absolute emissions and emissions per capita, but low emissions per person reached.
- While **Chad and Ecuador** have some of the highest absolute emissions, they have some of the lowest emissions per person reached.
- The **Europe** office has the lowest total emissions and the highest emissions per person (staff) largely due to only having one employee in 2019.

<div align="center">

Table 4a: HIAS Country Office Baseline Emissions per capita

</div>

Country Office	Number of People[3]	Emissions per capita (MTCO$_2$e/ person)	Emissions per person reached (kg CO$_2$e/ person)
Europe (Brussels)	1	10	-
Venezuela	51	9	6
US	114	8	251
Panama	29	3	7
Greece	12	3	31
Costa Rica	24	3	7
Israel	10	3	15
Aruba	7	3	21
Mexico	6	3	6
Austria	17	3	13
Peru	14	3	30
Chad	160	2	1
Colombia	11	2	72
Ecuador	270	2	3
Kenya	113	2	12

---

[3] The number of people used for the per-person basis was the number of occupants in the HIAS spaces, as reported by the country offices. This was the same as the number of employees reported by the HIAS offices, except in the case of Kenya where one office had an additional 50 clients occupying the reported space.

Table 4b: HIAS Country Office Baseline Emissions

HIAS Office	Diesel Generators emissions (MTCO$_2$e)	Vehicles emissions (MTCO$_2$e)	Total Scope 1 Emissions (MTCO$_2$e)	Total Scope 2 Electricity Emissions (MTCO$_2$e)	Total Scope 3 Emissions (MTCO$_2$e)	Total Emissions (MTCO$_2$e)	Number of People[4]	Emissions per capita (MTCO$_2$e/person)	Emissions per person reached (kg CO$_2$e/person)
US	0	0	0	166	745	912	114	8.0	251
Venezuela	0	35	35	16	422	473	51	9.3	6
Ecuador	0	24	24	17	424	465	270	1.7	3
Chad	81	6	87	103	152	342	160	2.1	1
Kenya	2	12	13	7	166	186	113	1.6	12
Panama	0	0	0	3	91	93	29	3.2	7
Costa Rica	0	0	0	0	75	75	24	3.1	7
Austria	0	0	0	7	39	46	17	2.7	13
Greece	0	2	2	10	27	38	12	3.2	31
Peru	0	0	0	0	37	38	14	2.7	30
Israel	0	0	0	6	24	30	10	3.0	15
Colombia	0	0	0	1	22	23	11	2.1	72
Aruba	0	0	0	1	20	21	7	3.0	21
Mexico	0	0	0	2	16	17	6	2.9	6
Europe (Brussels)	0	0	0	1	9	10	1	9.6	-

[4] The number of people used for the per-person basis was the number of occupants in the HIAS spaces, as reported by the country offices. This was the same as the number of employees reported by the HIAS offices, except in the case of Kenya where one office had an additional 50 clients occupying the reported space.

Sustainability Highlights

The surveys and interviews of this baseline study identified a few of the actions HIAS was taking towards improving its environmental impact in 2019, including:

- The formation of the HIAS Green Team to drive environmental sustainability efforts

- Light sensors that turn off lights (US, Venezuela)

- Water capture from air conditioning units to use in bathrooms (Venezuela)

- Paper shredding & recycling service (US)

- Informal recycling through a local staff member (Venezuela)

- Reusable dishes in offices to reduce disposables (US)

- Staff member collecting office organic waste to compost (US)

Clients in Chad engage in permaculture

Next Steps: Environmental Targets

HIAS' next steps include setting reduction targets and identifying the highest impact and most feasible measures to meet those targets.

Environmental Targets

Targets will be set based on HIAS' organizational goals to combat climate change and timelines that are feasible for the organization to complete. Environmental baseline results indicate that HIAS would have a greater impact prioritizing efforts to reduce GHG emissions, with waste and water reductions taking lower priority. However, each office may choose to focus on a particular reduction effort, given their unique situation.

Targets will include various metrics and a timeline, with steps towards net zero where possible. The targets will include some or all of the following:

- **Normalized reduction targets** (per person and/or revenue basis)

Example: 50% reduction in GHG emissions per $1 million of revenue by 2025

- **Absolute reduction targets** (percentage based on total emissions)

Example: 50% reduction in total GHG emissions by 2035

- **Timeline to reach net zero**

Example: 100% reduction in total GHG emissions (Net Zero) by 2050

When targeting "net zero" emissions, HIAS will reduce absolute emissions as much as possible, then seek to compensate the remaining emissions through certified projects that will create an equivalent amount of carbon sinks.

Considerations for GHG Emissions Targets

One aspect of setting targets is identifying the feasibility for reductions. The environmental baseline revealed that the activities with the greatest contributions to GHG emissions are:

- Business travel

- Electricity

- Furniture purchases

- Commuting

- Professional fees

A focus on Scope 1 (direct) emissions is also recommended because HIAS has direct control over those activities. For HIAS, those activities are:

- Diesel Generators

- Vehicles

Reduction strategies will likely be centered around the following:

- Identifying low-carbon furniture & equipment suppliers, including investigating options for reuse and second-hand items.

- Screening consultants and legal service providers for low-carbon or net-zero operations (and requesting their Environmental, Social, and Governance (ESG) statements to verify.

- Investing in alternative energy vehicles.

- Investing in alternative electricity generation technologies such as solar panels and hybrid or electric vehicles.

- Identifying low-carbon business travel options.

- Purchasing renewable energy credits (RECs)

- Purchasing verified carbon offsets.

HIAS Greece vehicle

Considerations for Waste Targets

HIAS' progress towards waste reduction will be tracked around reduction, reuse, and recycling of materials.

Waste generation in offices tends to be high in organics and paper. Because of this, composting tends to be the highest-impact waste reduction strategy, reducing waste rates by around 50%. An effort to help the largest HIAS offices compost organic waste could be a high-impact waste reduction goal.

A more detailed survey of waste types in each office and feasible possibilities for composting, recycling, and product alternatives at each site would reveal reasonable waste reduction targets.

Considerations for Water Targets

Water use in HIAS offices tends to be minimal leaving little room for improvements that would have a large impact. Offices that experience water service interruptions or water scarcity (Venezuela, Chad, and Kenya) already practice water conservation out of necessity.

Twenty percent of HIAS' water consumption is from the residential facilities in Kenya because they provide water in a residential setting instead of an office setting. While water is already scare and conservation is likely practiced, strategies for making water conservation easier while ensuring full access to water could be investigated.

Strategies for achieving Targets and Mitigating Risks

In conjunction with mitigating HIAS' contributions to climate change, HIAS will need to mitigate the risks to our operations posed by the already changing climate. (Mitigation of risks created by climate change is also commonly referred to as "adaptation".)

HIAS will identify how a changing climate will impact office operations in each location. For example, office spaces in flood zones will need to be protected from extreme flooding events, and offices in areas experiencing hotter weather would have higher energy requirements as they would require additional air-conditioning for computer functionality and occupant comfort.

While an in-depth study will highlight priorities and highest-impact strategies for both mitigation and adaptation, strategy ideas based on this baseline study include:

- Investing in solar panels with battery storage and grid interconnects, especially in African countries that are reliant on diesel generators and are experiencing greater solar incidence and less rain every year.

- Investing in low-carbon vehicles such as hybrids and/or electric vehicles, as applicable.

- Identifying low-carbon business travel options and investigating verified and certified carbon offsets.

- Identifying low-carbon furniture and equipment options such as Forest Stewardship Council (FSC)-certified wood or bamboo-based products, or previously-owned items.

- Requesting ESG statements from major product suppliers and service providers, and switching to lower carbon providers that demonstrate a better environmental impact compared with their competitors.

- Composting on site, with partner organizations, or with a commercial organization can reduce waste as well as provide fertilizer if done in conjunction with community gardens or on-site gardening programs. Composting and gardening programs could provide mental health benefits, a local food source, and positive environmental impacts.

- Rainwater capture with storage tanks. In areas that are expected to experience greater flooding, rainwater capture can help minimize flooding and provide a water source when water providers fail due to flooding. In areas that are expected to experience less rain, rainwater capture can help in the face of shortages.

- Investing in companies, banks, mutual funds and other investment instruments that have ESG statements that demonstrate low-carbon operations and positive environmental and social impacts.

Methodology & Data Collection

This environmental baseline is assessed based on the Greenhouse Gas Protocol published by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). Resources from the US Environmental Protection Agency (EPA) Business Climate Leadership and US EPA Waste Reduction Model (WARM) were also employed.

Baseline Year

HIAS has selected 2019 as the baseline year for this water, waste, and GHG emissions assessment because it is the most recent year before operations temporarily changed

significantly due to the pandemic. All targets will be based on reductions relative to this baseline.

Organizational Boundary

The organizational boundary for this baseline assessment is set using the operational control approach[5] to determine which emissions to include. Where HIAS leases or shares space, the waste, water, and GHG-emissions attributed to HIAS operations were calculated or estimated and included in the Scope 1 GHG emissions. An explanation of Scope 3 categories included and excluded is provided in Appendix A.

HIAS is an international, (US-based) organization that in the 2019 baseline year operated in 15 countries, with approximately 50 field offices. For the purpose of this analysis, offices were divided into four regions – the Latin America-Caribbean (LAC) region, the United States (US), Africa, and Eurasia.

HIAS Country Offices			
LAC region	Africa region	Eurasia region	US offices
Ecuador Costa Rica Colombia Mexico Perú Aruba Panamá	Chad Kenya	Israel Austria Greece Europe	Silver Spring, MD New York, NY

Data Collection

To quantify the baseline, water, waste, and GHG emissions data was collected using Excel-based surveys and interviews with the following HIAS entities:

•   Country Offices (CO)[6]
•   Finance
•   Strategy & Management
•   Human Resources

---

[5] The operational control approach is described further in the GHG Protocol Corporate Standard and Corporate Value Chain Accounting and Standards.

[6] The data call was sent to all 15 country offices that were operating in 2019.

A majority of the data for all activities was provided, with the exception of waste quantities and employee commuting data which could not be provided in sufficient completeness.

Table 5. HIAS Baseline Year Data Reporting Statistics

Activity Data	Percent of Total Emissions Reported	Number of Offices Reporting
Water	77%	26
Waste	18%	18
Electricity	75%	34
Vehicles & Diesel Generators	100%	50
Business Travel - Flights	93%	9
Business Travel - Ground	92%	8
Purchases	100%	50
Commuting	0%	0

Data gaps were addressed using estimations based on the data provided, as described in Appendix B.

Water and Waste

Water and waste data were collected from country offices, and where data was not provided, usage was extrapolated based on the data provided, as described in Appendix B.

GHG Emissions

The table below describes the emissions sources that contribute to HIAS' GHG emissions baseline, data collected from each source, and the reference for the emission factor used to calculate the GHG emissions attributed to each source.

Table 6. GHG Emissions Calculation Basis

Scope	Emissions Source	Activity Data	Source	Emission Factor Source
1-Direct	HIAS-owned vehicles	-Vehicle type (car or truck/gasoline or diesel) -2019 Distance driven	Country Office	US EPA Emission Factors for Greenhouse Gas Inventories, March 2020
	Diesel Generators	-Diesel fuel consumption	CO	US EPA Emission Factors for Greenhouse Gas Inventories, March 2020

Scope	Emissions Source	Activity Data	Source	Emission Factor Source
2-Indirect	Electricity Consumption	-Amount of electricity consumption (from bills or estimated based on office area and/or number of employees)	Country Office	Emissionfactors.com
3-Indirect	Business Travel	-Amount spent on flights and ground transportation	Country Office	Carnegie Mellon Economic Input-Output Life Cycle Assessment
3-Indirect	Employee Commuting	-Number of employees	Estimated	US EPA Emission Factors for Greenhouse Gas Inventories, March 2020
3-Indirect	Purchased goods and services, grants, loans	-Amount spent on 11 different categories of goods and services	HQ Finance	Carnegie Mellon Economic Input-Output Life Cycle Assessment[7]
3-Indirect	Waste	-Amount of waste -Number of employees	Country Office	US EPA Emission Factors for Greenhouse Gas Inventories, March 2020
3-Indirect	Upstream Transportation and Distribution	-Amount of electricity consumed	Country Office	World Bank Data – Electric power transmission and distribution losses (% of output)

Not included in the baseline due to their small impact, complex accounting, and lack of information:
- Category 2 – Capital goods
- Category 3 - Upstream emissions from fuel and electricity purchases.

Electricity, Vehicles, and Generators Data

Electricity, vehicles, and generators data was collected from country offices, and where data was not provided, usage was extrapolated based on the data provided, as described in Appendix B.

Business Travel Data

Emissions from business travel was estimated based on the amount of funds spent for flights and for ground transportation. While calculating emissions based on miles traveled in each type

---

[7] Carnegie Mellon University Green Design Institute. (2021) Economic Input-Output Life Cycle Assessment (EIO-LCA) US 2002 (428 sectors) Purchaser Price Model - US 2002 Purchaser, [Internet], Available from: <http://www.eiolca.net/> [Accessed 29 Jun, 2021]

of transportation yields more accurate emissions calculations, this data was not available. As such, the Carnegie Mellon University Economic Input-Output Life Cycle Assessment (EIO-LCA)[10] was used to estimate emissions based on expenditures.

Purchases

The production of goods and delivery of services have a carbon footprint of their own, and by purchasing those goods and services we are indirectly responsible for the generation of those "embedded" emissions. We quantified the embedded emissions of the goods and services purchased by HIAS based on the amount of funds spent on each of 11 categories of purchases, using the same EIO-LCA model used to calculate business travel emissions. Table 2 lists the emissions calculated for each purchase category.

In the future, better estimates of embedded emissions could be made if suppliers provide data about the emissions rates associated with their products and services.

Employee Commuting Data

Employee commuting data was not available and so was estimated based on employee counts. The baseline data should be updated if a commuting survey is able to be administered to have more reliable data as a basis for calculating commuting emissions.

Accuracy and Error

Estimates were used where data was not available, and as such, the percent contribution of activity data provides a sense of the accuracy of the data, especially for Water and Scope 1 and 2 GHG emissions. Scope 3 emissions (business travel and purchases) were estimated based on purchasing data and employee counts, which adds an additional level of uncertainty and inaccuracy.

Activity Data	Percent of Total Emissions Reported
Water	77%
Scope 2 GHG: Electricity	75%
Scope 1 GHG: Vehicles & Diesel Generators	100%
Business Travel - Flights	93%
Business Travel - Ground	92%
Purchases	100%
Commuting	0%

Recalculation

Recalculation of the baseline will be required if the following cases result in greater than 5% change to the inventory (listed in order of their likelihood of occurring):

- Improvements in data accuracy (i.e., employee commuting data becomes available, business travel data becomes available, or more detailed purchasing data becomes available including capital investments)

- Change in calculation methodology (i.e., more detailed or accurate emissions factors become available, new or updated methods for calculating emissions from purchases and investments become available)

- Structural changes in the organization occur, such as outsourcing or acquisitions, (not including natural organizational growth).

- Changes occur in the categories or activities in the Scope 3 inventory

New offices opened after the baseline year (2019) would not initiate a recalculation but instead would be considered natural growth of the organization.

Appendix A. Scope 3 Categories

Included?	Scope 3 Emissions Category	Emission Source	Explanation/Comments
Yes	**1**	Purchased Goods and Services	*Included*
No	2	Capital Goods	Because capital goods are not annually occurring purchases, their inclusion can skew the baseline. For simplicity, they were not included, but an average across years based on lifetime of major purchases could be done to include them, recalculating the baseline in the future.
No	3	Fuel and Energy Related Activities not included in Scopes 1&2	Upstream emissions from fuel and electricity purchases were not included due to the lack of available emission factors and their small contribution to the overall emissions. If emissions factors become readily available, the baseline could be recalculated to include them.
Yes	**4**	Upstream Transportation & Distribution (T&D)	*Electricity T&D Included. Emissions from water T&D deemed to be insignificant. Emissions from diesel T&D deemed small and factors difficult to obtain.*
Yes	**5**	Waste Generated in Operations	*Included*
Yes	**6**	Business Travel	*Included*
Yes	**7**	Employee Commuting	These emissions were estimated based on number of employees because commuting data was not available.
No	8	Upstream Leased Activities	Not applicable.
No	9	Downstream Transportation & Distribution	Not applicable.
No	10	Processing of Sold Products	Not applicable.
No	11	Use of Sold Products	Not applicable.
No	12	End-of-Life Treatment of Sold Products	Not applicable.
No	13	Downstream Leased Assets	Not applicable.
No	14	Franchises	Not applicable.
No	15	Investments	Not applicable. (This category applies to financial institutions where a large portion of the organizational function involves investments.)*

*While not included in the baseline GHG emissions calculation, HIAS could decide to track financial investments and implement ESG policies and tracking for investments.

Appendix B. Data Gap Estimations

Water

Just over half of HIAS offices provided water consumption data, comprising 80% of total water consumption.[8] Water consumption by offices that did not provide data was extrapolated based on per capita consumption reported by offices in the same region. Where no data was available for a country office or region, national averages were used to estimate water consumption.

Country Office	Percent Reported	Water Estimation Method
Ecuador	86%	Based on number of employees. Extrapolated from average m^3/person reported by other Ecuador offices.
Chad	80%	Based on number of occupants. Extrapolated from average m^3/person reported by other Chad offices
Kenya	100%	None
Costa Rica	0%	Based on number of employees. Extrapolated from average m^3/person reported by LAC (Ecuador) offices
Austria	0%	Based on number of employees. Extrapolated from average office water intensities for Europe office buildings.
Israel	0%	Based on number of employees. Extrapolated from average office water intensities for Europe office buildings.
Venezuela	0%	Based on number of employees. Extrapolated from average m^3/person reported by LAC (Ecuador) offices
US	50%	Based on number of employees. Extrapolated from average m^3/person reported by other US office
Colombia	0%	Based on number of employees. Extrapolated from average m^3/person reported by LAC (Ecuador) offices
Mexico	0%	Based on number of employees Extrapolated from average m^3/person reported by LAC (Ecuador) offices

---

[8] Offices that reported water data included field offices in Ecuador, Chad, Kenya, and the US.

		Based on number of employees. Extrapolated from average office water intensities for Europe office buildings.
Europe (Brussels)	0%	
Greece	0%	Based on number of employees. Extrapolated from average office water intensities for Europe office buildings.
Panama	0%	Based on number of employee. Extrapolated from average m^3/person reported by LAC (Ecuador) offices
Aruba	0%	Based on number of employees. Extrapolated from average m^3/person reported by LAC (Ecuador) offices
Peru	0%	Not included due to operations beginning in Dec. 2019

Waste

Waste data was the most difficult environmental data to acquire; just over one third of HIAS offices provided waste generation rates, equivalent to approximately 20% of total waste generation for HIAS.[9] Waste for all other countries was estimated based on the number of employees and a factor derived from the data received. Waste generation from offices in Europe, Asia, and the US were estimated assuming the same waste/person rates as Israel. Waste from LAC countries was estimated assuming an average rate of all reported waste rates.

Country Office	Percent Reported	Waste Estimation Method
Ecuador	0%	Estimate based on number of employees
Chad	80%	Estimate based on number of employees, using the average waste/person from other offices in Chad
Kenya	100%	None
Costa Rica	0%	Estimate based on number of employees
Austria	0%	Estimate based on number of employees
Israel	100%	None. Reported in kg, waste density estimate used for conversion to volume.
Venezuela	0%	Estimate based on number of employees
US	0%	Estimate based on number of employees
Colombia	0%	Estimate based on number of employees
Mexico	0%	Estimate based on number of employees

---

[9] Offices that reported water data included field offices in Chad, Kenya, and Israel.

Europe (Brussels)	0%	Estimate based on number of employees
Greece	0%	Estimate based on number of employees
Panama	0%	Estimate based on number of employees
Aruba	0%	Estimate based on number of employees
Peru	0%	Not included due to operations beginning in Dec. 2019

Electricity Consumption

Two-thirds of HIAS offices provided electricity consumption data, comprising approximately 70% of the electricity consumption total. Electricity consumption by offices that did not provide data was extrapolated based electricity intensity reported by offices in the same country or region.

Country Office	Percent of Offices Reporting	Electricity Estimation Method
Ecuador	100%	None
Chad	60%	Extrapolated from the average of electricity intensity per office area(kWh/m^2) and per person (KWh/person) from Chad reporting offices
Kenya	100%	None
Costa Rica	100%	None
Austria	100%	None
Israel	100%	None
Venezuela	17%	Extrapolated from electricity intensity (kWh/m^2) of Venezuela's reporting office
US	50%	Extrapolated from electricity intensity (kWh/m^2) of US's reporting office
Colombia	0%	Extrapolated from electricity intensity (kWh/m^2) reported for LAC region
Mexico	0%	Extrapolated from electricity intensity (kWh/person) reported for LAC region
Europe (Brussels)	0%	Extrapolated from the average of electricity intensity per office area(kWh/m^2) and per person (KWh/person) from HIAS offices in the Europe-Asia region.
Greece	0%	Extrapolated from the average of electricity intensity per office area(kWh/m^2) and per person (KWh/person) from HIAS offices in the Europe-Asia region.
Panama	0%	Extrapolated based on electricity intensity (kWh/person) reported for LAC region

Aruba	0%	Extrapolated based on electricity intensity (kWh/person) reported for LAC region
Peru	0%	Not included due to operations beginning in Dec. 2019

Business Travel

The following countries reported expenditures for business travel:

- Ecuador
- Chad
- Kenya
- Costa Rica
- Austria
- Israel
- US
- Europe

To estimate expenditures for business travel in the remaining countries, we extrapolated the average expenditure per HIAS employee based on the data provided. We then took the average proportion of business travel that were attributed to flights and applied that factor to estimate flight costs and ground transportation costs for the countries that did not report data.

Employee Commuting

Because employee commuting data was not available, emissions were estimated based on the following assumptions:

- 15 km per-person-per-day average commute across all offices
- 49% of HIAS employees commuting on public transit[10]
- 28% of HIAS employees commuting in automobile11.

---

[10] Commuter patterns in Mexico City: 49% - transit, 28% -car, 23% - foot or bicycle, ref: https://www.sciencedirect.com/science/article/pii/S0967070X17305930

Author

Angeline Cione, *Environmental Consultant*

angeline.cione@hias.org/angeline.m.cione@gmail.com

About HIAS

HIAS is there for refugees when and where they need help most. We are a Jewish humanitarian organization that works in the United States and 15 other countries, providing vital services to refugees and asylum seekers of all faiths so they can rebuild their lives. With the Jewish community beside us, we also advocate for the rights of forcibly displaced people globally.

Over our expansive history, we've confronted—and overcome—formidable challenges facing refugees. Today, we are a leader with the expertise, partnerships, and values necessary to respond to the global crisis.

Refugees deserve a world in which they find safety, opportunity and welcome. With you, we can create it. **Learn more and take action at HIAS.org.**