CARE Climate-Smart Report FY 19

An overview of CARE's greenhouse gas emissions and its measures to reduce them

CARE Climate Change and Resilience Platform, October 2020.

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Executive summary

CARE's Climate Change and Resilience Platform (CCRP) is pleased to present the first ever report with an analysis of CARE offices' **greenhouse gas emissions** and its **measures** to reduce them.

In 2015, the world reached the landmark Paris Agreement and reaffirmed the goal of limiting global temperature increase to well below 2°C, while pursuing efforts to limit the increase to 1.5°C. However, under current national pledges, the world will warm by 2.8°C – or more - by the end of the century.[1] A tremendous transformation and level of effort is thus needed to stay within a global temperature increase of 1.5°C. Global emissions need to be at least halved by 2030 compared to 2015 levels and even more in countries with high per capita emissions. Thus, it is **CARE's moral and ethical responsibility to reduce its greenhouse gas emissions and contribution to the climate crisis.**

In order to keep track of CARE's emissions from flights, vehicle use and office energy consumption, and the measures that CARE offices implement to reduce these emissions, CCRP developed climate-smart indicators to be included in CARE's Program Information and Impact Reporting System (PIIRS). FY19 was the first year of data-collection and 58 out of a total of 81 CARE offices reported on the indicators. This report provides an overview of the collected PIIRS data and its findings.

Main Findings

1. The estimated emissions by CARE globally (11,507 staff), account for at least **28,706.9 tons of CO_2-eq** in FY19. This is equivalent to the annual average emissions of 1,852 Americans (15.5 tons per capita emissions) or to the annual average emissions of 199,353 Ethiopians (0.144 tons per capita emissions).[2] Or equivalent to more than 10,500 round trips Paris-New York of approximately 2.685 tons CO_2-eq.
2. An estimated **47%** of all CARE's emissions in FY19 come from flights. **35%** are emissions related to vehicle use and **18%** are office energy consumption related emissions.[3]
3. Almost **half of all flights (49.1%)** reported by CARE offices were short-haul flights (under two hours of flight time). The majority (71%) of these were purchased by offices in the Global South.
4. An estimated **67.6% of CARE's emissions** in FY19 are produced by offices from the Global South and **32.4% by offices from the Global North**. However, the percentage of staff based in offices from the Global South as part of the whole confederation is **89%**.
5. The estimated average annual footprint for a CARE staff member from an office in the Global North is about **7.47 tons CO_2-eq** in FY19. The estimated average footprint for a CARE staff member from an office in the Global South is about **1.89 tons CO_2-eq**. The estimated average footprint for a CARE staff member worldwide is **2.49 tons CO_2-eq.**
6. A majority of the offices reports to implement **awareness raising measures** such as setting up Green Teams in order to stimulate the reduction of emissions. Measures that are least implemented are a set emission reduction target for the office, a carbon budget and the use of an offsetting programme for unavoided emissions.

1 See https://climateactiontracker.org/global/cat-thermometer/
2 See https://data.worldbank.org/indicator/en.atm.co2e.pc
3 These estimates are based on very rough calculations as explained in chapter 1 Methodology. It is expected that real emissions from flights may be even higher.

Based on the findings of this report, the following recommendations are given to CARE:

Recommendations

1. Set ambitious emission reduction targets with clear milestones for 2025 and 2030.
2. Put restrictions on short-haul flights and substitute, where possible, through less carbon intense means.
3. Reinforce travel authorizations that include considerations of online/distant engagement.
4. Look into driving habits and prioritize the purchase of cleaner vehicles.
5. Shift electricity use to 100% renewable energies, either purchased or self-produced.
6. Join CARE's joint carbon offsetting programme for unavoided emissions.[4]
7. Establish a Green Team in the office.[5]
8. Strengthen global coordination across offices to ensure knowledge sharing and exchange of good practices to reduce emissions.
9. Include sensitization on climate change in all staff's induction.
10. Use the calculator 'Atmosfair' to report on emissions from flights.

4 Contact Edel Heuven for more information on CARE's joint carbon offsetting programme.
5 Contact GreenTeams@careinternational.org to connect with other Green Teams.

Introduction

This analysis of CARE offices' greenhouse gas emissions and consequent action is much needed as the world grapples with a climate emergency. Human activity has already caused global temperatures to rise by 1.2°C above pre-industrial levels and a tremendous level of effort is needed to stay within a global temperature increase of 1.5°C. Global emissions need to be at least halved by 2030 compared to 2015 levels and even more in countries with high per capita emissions. The impacts of climate change are increasingly devastating, with particular impacts on the poorest and most vulnerable, threatening their right to food, health, economic justice and contributing to increased humanitarian emergencies. The burden of these impacts falls disproportionately on women and girls and increases existing inequalities and vulnerabilities between men and women.

While CARE is working globally to support communities – particularly women and girls – in their adaptation to the impacts of climate change, at the same time our confederation's activities contribute to the climate crisis: we emit greenhouse gases through our flights, use of vehicles, office energy consumption and other aspects of our work culture.

As a first global step to reduce its global carbon footprint, in 2016 CARE's National Directors adopted the CARE Climate-Smart Flight Travel Policy. Two years after its approval, CCRP commissioned a study to assess CARE's climate-smart efforts. Specifically, the study looked at the extent to which CARE members, affiliates and candidates were implementing activities to reduce emissions from flights, vehicle use and office energy consumption. The study also analyzed the extent to which offices supported a low carbon and climate sensitive work culture. Overall, findings showed that some initiatives to reduce greenhouse gas emissions were being implemented, with good practices and systems in place in certain cases, but that this was not a general trend.

It was therefore recommended to CARE's National Directors Committee in 2019 to start analyzing, monitoring and reducing emissions from flights, vehicles and office energy consumption in a more concerted manner. If CARE is to speak credibly and encourage others to act on the climate emergency and as CARE is also looked at by other peers, policymakers and funders in this regard, we must lead by example. Therefore, CCRP developed climate-smart indicators to be included in CARE's PIIRS for data collection in FY19 (Financial Year July '18 – June '19) and subsequent years.

This report presents the findings from the first round of reporting on CARE's emissions and climate smart efforts. In total, 58 offices out of 81 reported on climate smart indicators in PIIRS and CCRP has distilled the most important information out of these data to provide the confederation with an insight on where we are at in terms of our greenhouse gas emissions and our reduction efforts.

The recently adopted CARE 2030 Vision commits CARE to "reduce travel and increase remote working as part of measures to become a more environmentally just and climate responsible organization." We hope that this first CARE report will be an inspiration to increase our efforts by setting up ambitious emission reduction targets and putting in place systems and practices that support CARE's aspiration to be an environmentally just and climate responsible organization.

CARE Climate Change and Resilience Platform

Overview of Chapters

This report is organized as follows: Chapter 1 explains the methodology used to generate this report. Chapter 2 elaborates on the overall overview of CARE's emissions. This chapter is based on the data presented in Chapter 3-5, where more in-depth data is presented on CARE's emissions and measures taken to reduce and offset these emissions. Chapter 3 focuses on CARE's emissions from flights, Chapter 4 on CARE's emissions from vehicle use by offices in the Global South and Chapter 5 on CARE's emissions related to office energy consumption. Finally, recommendations for CARE offices are made to reduce and offset their emissions.

Please note that some offices either submitted a selection of data or no data at all. Therefore, formulas were developed to calculate the estimated emissions for these offices to generate a picture of CARE's global emissions (see chapter 1: Methodology). Therefore, in Chapters 2-5, first CARE's reported emissions are presented to be followed by the estimated emissions. Over time, we expect to overcome limitations in data and reporting and to further improve the quality of the data.

1. Methodology

During the financial year 2019 (July 2018-June 2019), climate smart indicators became part of CARE's Program Information and Impact Reporting System (PIIRS) form, thereby making it the first time for CARE's offices worldwide to report on their greenhouse gas emissions and efforts to reduce and offset them. The results from the FY19 climate smart data collection presented in this report were derived from a multi-step process, which is explained below: Paragraph 1.1 describes the climate smart indicators in PIIRS, paragraphs 1.2 and 1.3 the data collection and data validation, paragraph 1.4 explains the categorization of the offices and paragraph 1.5 focuses on the data analysis and its limitations.

1.1 Climate smart indicators in CARE's PIIRS form

In 2018-19, qualitative research was conducted amongst CARE members, affiliates, candidates and a selection of country offices to identify to what extent the confederation implemented the flight travel policy adopted in October 2016 and measures to reduce emissions from other sources. This research resulted in the CARE Climate Smart Report. Based on these findings, climate-smart indicators for CARE's PIIRS were developed together with an accompanying guidance note (see Annex 1). Both the indicators and guidance note were tested by 10 CARE offices (Philippines, India, Peru, Guatemala, Malawi, Madagascar, Mali, USA, Netherlands, Australia) and adjusted accordingly in April 2019. From July 2019, all CARE offices were requested to report on the climate smart indicators annually.[6]

The CARE climate smart indicators cover three sources of greenhouse gas (GHG) emissions: flights, vehicle use and office energy consumption and they cover measures taken by offices to reduce and offset emissions from these three sources. Offices are requested to submit the below data in the PIIRS form:

1. Flights and greenhouse gas emissions during the FY:
   - Number of flights under 2 hours of flight time[7]
   - Number of flights over 2 hours of flight time
   - Total number of hours of all flights
   - Total number of flights
   - Total amount of GHG emissions (in tCO_2-equivalent) from flights that were supported by your office
   - Describe the method/calculator used for determining the amount of greenhouse emissions (calculator recommended by CARE is www.atmosfair.de)

2. Fuel consumption for vehicle use in the FY:
   - Number of litres of a) gasoline b) diesel c) other fuels

3. Office(s) energy consumption during the FY:
   - Electricity in kWh, consumed by your office(s)
   - CO_2 intensity in grams of CO_2 equivalent per kWh
   - Number of litres of a) gasoline b) diesel c) other fuels consumed by generators
   - Number of cubic meters of gas consumed

4. Measures your office has taken to reduce and/or offset emissions in the FY for flight travel, vehicle use and office energy consumption:
   - Awareness raising among staff about the climate change impact of flight travel, vehicle use and office energy consumption
   - Application of alternatives/measures to reduce emissions from flight travel, vehicle use and office energy consumption
   - Application of reduction targets for flight travel, vehicle use and office energy consumption
   - Application of a carbon budget for flight travel, vehicle use and office energy consumption
   - Offset of emissions through internal funds or external parties for flight travel, vehicle use and office energy consumption
   - Other measures

6 At the request of the NDC, reporting on the climate smart indicators was compulsory for CARE members only and not for country offices in this first year of reporting.
7 This includes flights equal to 2 hours of flight time.

1.2 Data collection

As it was the first time that CARE offices submitted data on their greenhouse gas emissions and their efforts to reduce and offset them, CCRP undertook a big effort to support colleagues in submitting reliable data. CCRP produced a tutorial video, organized three webinars (one in French and two in English) for CARE's global MEL-group and interested colleagues, developed an Answers & Questions document and was available for questions on the PIIRS hotline as well as via e-mails.

The results of the data collection were impressive: even though reporting on the climate smart indicators over FY19 was only compulsory for CARE members (14 offices), a total of 58 offices out of 81 reported on all or a selection of the climate smart indicators in PIIRS. All CARE members submitted data and a sound number of 45 country offices voluntarily submitted their climate smart data.[8]

1.3 Data validation[9]

After receiving all the data, CCRP has gone through two rounds of validation in order to ensure reliable and best quality data. The first validation round took place in October-November '19 and the second one in January-February '20.

In the first validation round, data were cleaned and reviewed using different benchmarks for each variable, such as an average CO_2-eq per staff member in an office, average values per office and national grid intensities.[10] This enabled CCRP to detect typos and extreme/unreliable figures. Incorrect unit conversion was one of the most commonly found errors. Observations and recommendations to improve and verify data were shared with concerned offices and members were contacted in cases where incomplete information was submitted.

For the second validation round, the CCRP team was supported by a renewable energy specialist with a technical background on greenhouse gas emissions. She developed a number of new formulas to detect outliers in the database. Several assumptions were applied for the development of these formulas to review the data and to find the outliers. For instance, one of the assumptions used for validating reported CO_2 emissions from flights was: "Minimum CO_2 emissions per flight expected for short-haul flights is 22kg CO_2-eq".[11]

Though all data has been validated and the data that were found to be unreliable were left out of the report, there is a high likelihood of underreporting of emissions from flights due to the different emission calculators that were used. It must be reiterated that in the next round of PIIRS, the Atmosfair calculator is recommended for all CARE offices reporting on their flight emissions.

1.4 Categorization of offices

Between February and August '20 the analysis of the climate smart data took place. Two categories of CARE offices were identified: 1) offices operating from the Global South and 2) offices operating from the Global North. This classification differs from the 2019 CARE Climate Smart Report in which offices were identified as: 1) members/affiliates and 2) country offices.

From the data gathered, it is clear that offices operating from the Global South usually have operations on the ground, whereas those based in the Global North do not and therefore expose very different ways of working. For example, offices in the Global North do not use any vehicles in their office operations whereas offices in the Global South often use vehicles in their operations. This is very similar when it concerns the use of generators for office operations. By choosing this new categorization, CCRP was better able to capture the diversities on the ground in the analysis of the data.

Out of the 66 offices operating in the Global South, 44 offices submitted climate smart data and 14 offices out of 15 offices from the Global North[12] reported on the climate smart indicators. It must be noted that data collected by the CARE Brussels office are included in the emissions of the CARE International secretariat (in this report called "CARE Switzerland"). Emissions from Chrysalis are reported as "CARE Sri Lanka" and emissions from Raks Thai are reported as "CARE Thailand".

8 All these offices submitted either all the requested information or part of this information.
9 For more information on the used hypothesis and reasoning in the validation process, see Annex 2.
10 See https://www.iges.or.jp/en/pub/list-grid-emission-factor/en
11 The reasoning behind this assumption is that, for example, travelling by the highly efficient airplane "Airbus A350-900" from Brussels to Amsterdam produces 22kg CO_2-eq emissions. This only serves for exemplary purposes, as the short distance Brussels to Amsterdam should not be travelled by plane but by train.
12 CARE Australia, Austria, Canada, Czech Republic, Denmark, France, Germany, Japan, Luxembourg, Netherlands, Norway, Switzerland, United Kingdom, United States of America.

1.5 Data analysis and limitations related to the data gathered

With the help of the renewable energy specialist who designed formulas to estimate CO_2-eq emissions based on available data and the PIIRS data on the number of staff in each CARE office[13] (see Annex 3), the reported climate smart data could be converted into tons CO_2-eq and a (rough) estimate of CARE's CO_2-eq emissions was calculated. CCRP took the following approach to derive CO_2-eq emissions from the three sources:

a) Flights

Not all offices submitted complete data and a number of offices did not use the calculator recommended by CARE ("Atmosfair") to gather the requested data. The use of different calculators decreases the comparability of the data among offices to a large extent and limits CARE's ability to consolidate reliable data on CO_2 -eq emissions to the confederation.[14]

For offices[15] that submitted data on their total number of flight hours, but not on their CO_2-eq emissions, a formula was developed to estimate the CO_2-eq emissions.[16] The development of an average value of CO_2-eq emissions per hour of flight time, was based on 25 flights common within the CARE confederation using the calculator CCRP recommended: Atmosfair,[17] and a website calculating flight durations.[18] By dividing the CO_2-eq emissions from the 25 flights by their total number of hours of flights, CCRP arrived at its formula to estimate CO_2-eq emissions from flights for the offices that only reported their flight hours: **total flight hours per office x 0.1522 tons CO_2-eq.**[19] These results are represented in the graphs as: ''estimated based on reported flight hours''. However, it has to be clearly stated that this formula just serves as a back-up in the absence of more detailed data from those offices and that all efforts should be undertaken to work with more accurate and detailed data.

There were also offices that did not submit any data at all. In order to derive a rough estimate of CO_2-eq emissions produced by those offices, CCRP created a formula for offices in the Global North and offices in the Global South:

- Average emissions in tons CO_2-eq per staff from offices in the category "Global North" that did report on their CO_2 emissions from flights x number of staff in offices in the category "Global North" that did not report any data: **total staff per Global North office x 3.65 tons CO_2-eq**.
- Average emissions in tons CO_2-eq per staff from offices in the category "Global South" that did report on their CO_2 -eq emissions from flights x number of staff in offices in the category "Global South" that did not report any data: **total staff per Global South office x 0.49 tons CO_2-eq**.

b) Fuel consumption for vehicle use and office energy consumption

With the data collected and the help of formulas designed by a renewable energy specialist, CCRP was able to calculate CO_2-eq emissions from vehicle use and office energy consumption. The following formulas were developed:

- Vehicle and office generator fuel consumption: **litres of fuel reported x multiplier** (multipliers differ for each type of fuel)
- Gas consumption in offices: **gas cubic meters x multiplier**
- Electricity consumption in offices: volume of electricity in **kWh x CO_2 electricity intensity**[20]

13 Number of staff reported in FY19 PIIRS include administrative staff.
14 For example: CARE Canada reports to have emitted 506 tons of CO_2-eq while 341 short haul and 926 long haul flights were taken. CARE Germany reports an almost similar amount of CO_2-eq emissions while they have purchased only 46 short haul and 89 long haul flights. Another example that raises questions about the way that emissions were accounted for by offices can be seen in data submitted by CARE Denmark and CARE Australia. CARE Denmark has reported that it has emitted 97 tons of CO_2-eq and has purchased 35 short haul and 130 long haul flights. CARE Australia reports to have emitted almost the same (107 tons of CO_2-eq) with 608 short haul and 93 long haul flights. Therefore, the choice was made not to present the CO_2-eq per country in this report.
15 10 CARE offices did not submit data on their total CO_2 emissions, but did submit data on their total number of flight hours (Bosnia and Herzegovina, Ecuador, Guinea, Indonesia, Liberia, Niger, Pakistan, Rwanda, Sudan, USA).
16 There is no consensus on the formula to calculate an average CO_2-eq per flight hour, as there are various factors besides distance and flight duration that have to be considered; see annex 4. Therefore, CCRP choose to develop a formula based on 25 flights common within CARE.
17 See https://www.atmosfair.de/en/offset/flight/
18 See https://www.flight-durations.com/
19 For more information on the formula to estimate the CO_2-eq emissions of offices that did report on their total flight hours but not on their CO_2 emissions, see Annex 4.
20 The CO_2 electricity intensity is diverse among countries and their elecricity grids. One of the main sources CARE used for the CO_2 electricity intensity multiplier is found on https://www.iges.or.jp/en/pub/list-grid-emission-factor/en

In Table 1, an overview of the multipliers is provided.

Table 1: *Overview of multipliers to calculate emissions from various fuels*

Variable: CO_2eq emissions of fuels	Unit	Multiplier[21]
Petrol CO_2-eq emissions	kgCO_2-eq / litres	2.32
Diesel CO_2-eq emissions	kgCO_2-eq / litres	2.69
Average other fuels CO_2-eq emissions	kgCO_2-eq / litres	1.59
Natural gas CO_2-eq emissions	kgCO_2-eq / m3	2.03

There were also offices that did not submit any data. In order to derive a rough estimate of CO_2-eq emissions produced by those offices through vehicle use, we created a formula for offices in the Global South: average emissions in tons CO_2-eq per staff from offices in the category "Global South" that did report on their CO_2-eq emissions from vehicle use x number of staff in offices in the category "Global South" that did not report any data. **Total staff per Global South office x 0.968 tons CO_2-eq.**

Also, there were offices that did not submit any data on their office energy consumption. In order to derive a rough estimate of CO_2 emissions produced by those offices through office energy consumption, we created a formula for offices in the Global North and Global South:

- average emissions in tons CO_2-eq per staff from offices in the category "Global North" that did report on their CO_2-eq emissions from office energy consumption x number of staff in offices in the category "Global North" that did not report any data. **Total staff per Global North office x 0.902 tons CO_2-eq.**
- For the offices in the Global South, a similar formula was used: average emissions in tons CO_2-eq per staff from offices in the category "Global South" that did report on their CO_2 emissions from office energy consumption x number of staff in offices in the category "Global South" that did not report any data. **Total staff per Global South office x 0.403 tons CO_2-eq.**

21 See https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

2. Overview of CARE's emissions[22]

It is important for CARE to have an insight into the total emissions produced by offices from flights, vehicle use and office energy consumption. Therefore, this chapter presents an overview of CARE's emissions. Paragraph 2.1 focuses on the reported emissions by CARE. Paragraph 2.2 focuses on both the reported and estimated emissions to generate a picture of the total amount of emissions of CARE worldwide. Both sections cover emissions generated by flights, vehicle use and office energy consumption and the difference in emissions between offices in the Global North and offices in the Global South. It must be reiterated that the overview does not include all of CARE's emissions but merely those created by the three sources mentioned before.

2.1 CARE's reported emissions

The total emissions reported by CARE offices is 16,961.8 tons of CO_2-eq. Figure 1 shows that 42% of all reported emissions come from vehicle use and 34% from flights. However, due to the use of different and less strict CO_2-eq calculators (which may have excluded significant non-CO_2 warming effects from flights) by CARE offices, it is expected that emissions from flights may in reality be higher than emissions from vehicle use. 24% of reported emissions are related to office energy consumption.

Figure 1: *Reported emissions (tons CO_2-eq) from flights, fuel consumption and office energy consumption.*

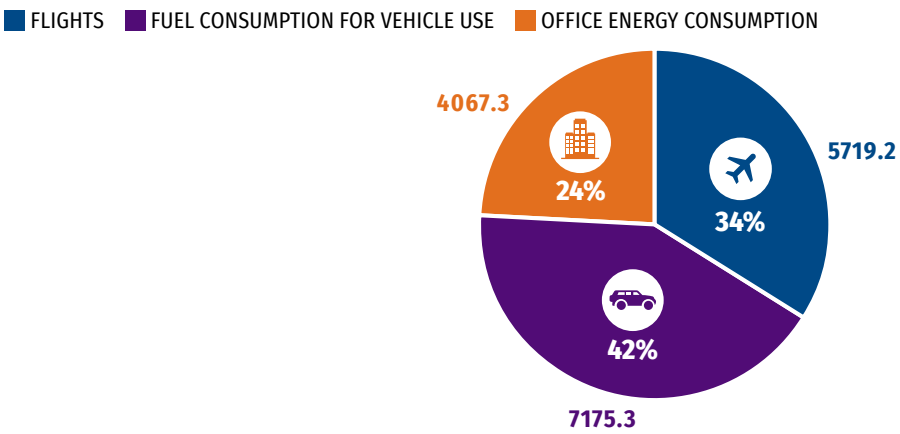
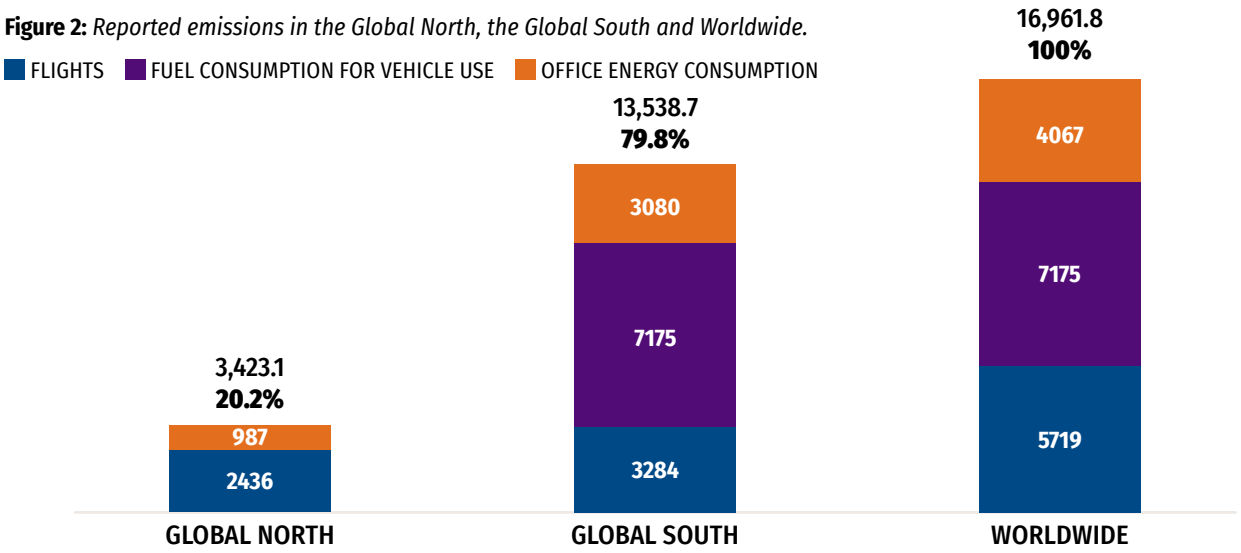


Figure 2 shows that the Global North is responsible for 20.2% (3,423.1 tons of CO_2-eq) and the Global South for 79.8% (13,538.7 tons of CO_2-eq). The fact that the Global South produces much more emissions than the Global North is to be expected based on the notion that the majority of CARE's staff worldwide is based in the Global South (89%). Therefore, a carbon footprint for CARE was calculated, indicating that the Global North has a larger footprint than the Global South:

- Global North: average 4.56 tons CO_2-eq emitted per staff member
- Global South: average 1.86 tons CO_2-eq emitted per staff member
- Worldwide: average 2.07 tons CO_2-eq emitted per staff member

Figure 2: *Reported emissions in the Global North, the Global South and Worldwide.*



22 For more information on CARE's global emissions, see Annex 5.

2.2 CARE's total emissions (reported & estimated)

In order to generate a full picture of CARE's emissions worldwide, formulas were developed to calculate an estimated amount of emissions for offices that either submitted a selection of data or no data at all (see chapter 1: Methodology).

The estimated emissions from CARE globally, account for 28,706.9 tons of CO_2-eq. For comparison: this is equivalent to the average annual emissions of 1,852 Americans (15.5 tons per capita emissions) or to the average annual emissions of 199,353 Ethiopians (0.144 tons per capita emissions).[23] Or equivalent to more than 10,500 round trips Paris-New York of 2.685 tons CO_2-eq.

As can be seen in figure 3, an estimated 47% of CARE's emissions are from flights (13,516.3 tons CO_2-eq), 35% from vehicle use (9,935.3 tons CO_2-eq) and 18% from office energy consumption (5255.3 tons CO_2-eq). In figure 4, the emissions related to CARE's flights, vehicle use and office energy consumption are further split up, showing 1) which numbers are reported 2) which numbers are estimated based on reported flight hours and 3) which numbers are estimated based on staff number.

Figure 3: *Reported and estimated emissions from flights, fuel consumption and office energy consumption.*

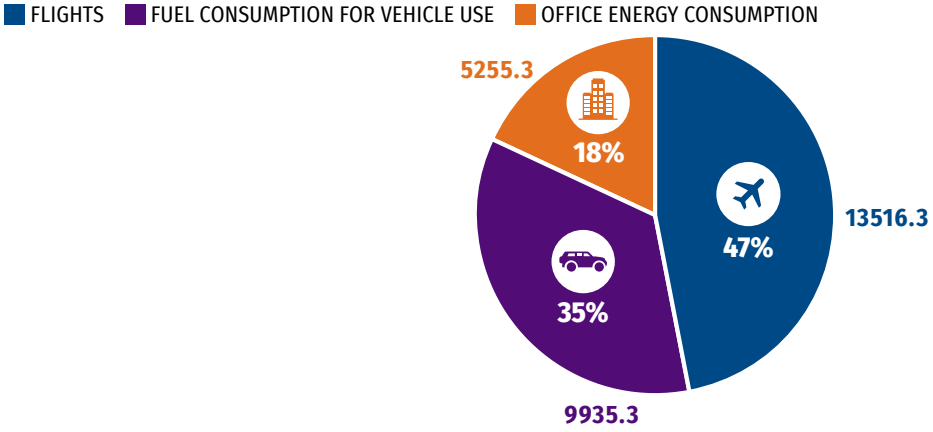
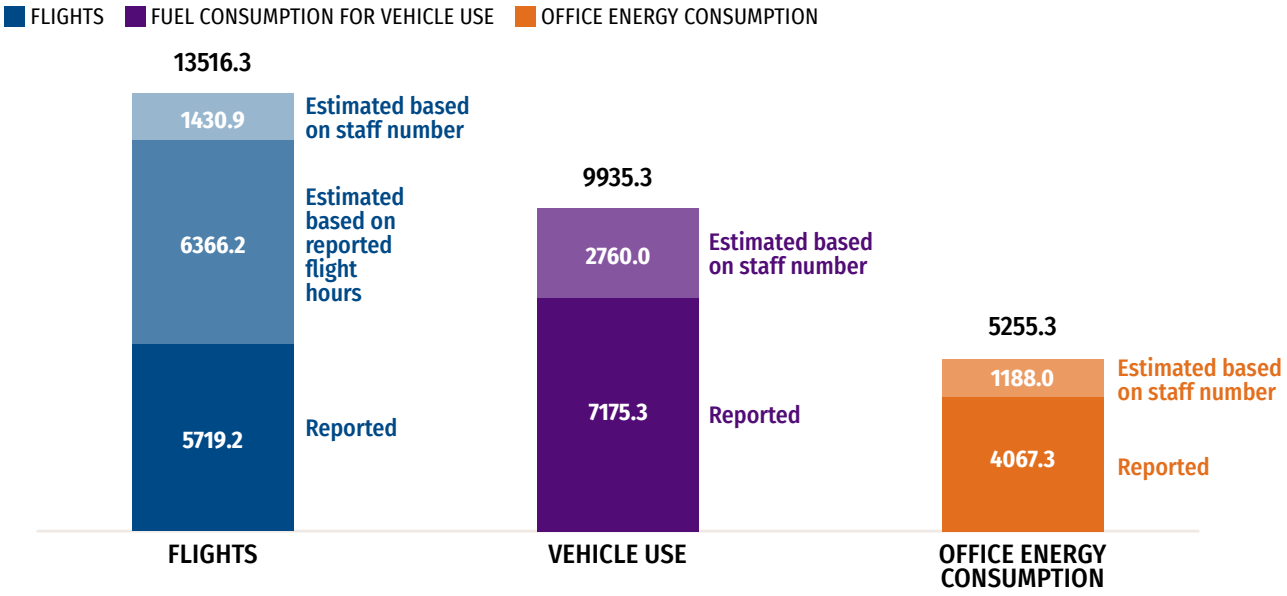


Figure 4: *Reported and estimated emissions from flights, fuel consumption and office energy consumption differentiating reported emissions, estimated emissions based on reported flight hours and estimated emissions based on staff number.*

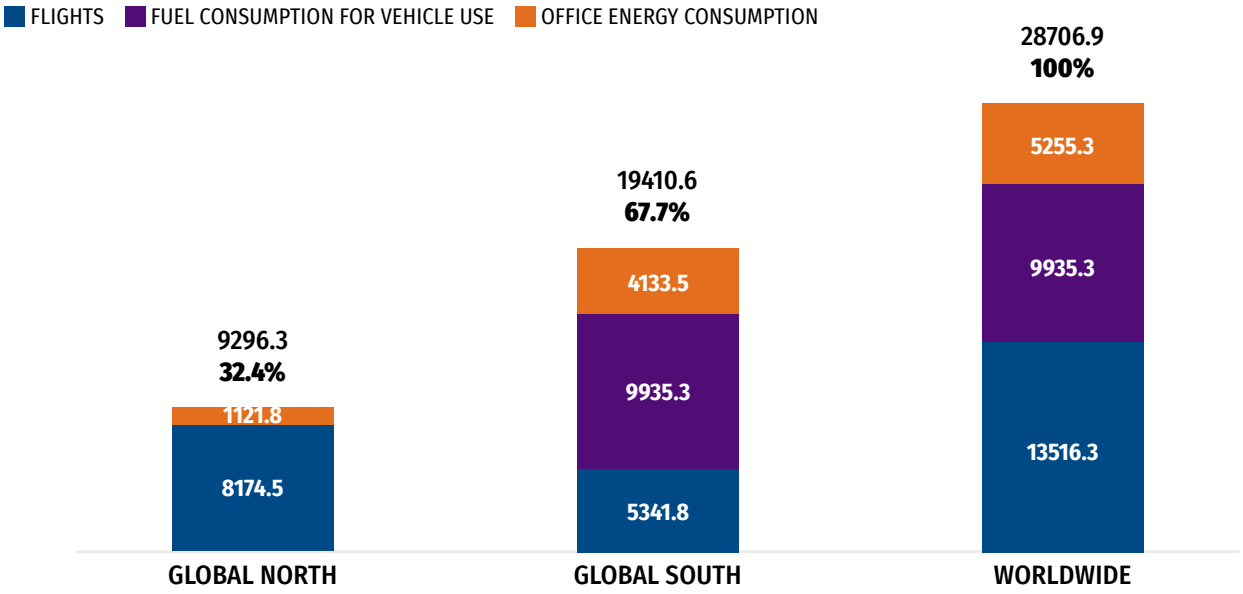


In Figure 5, the estimated emissions from CARE globally are displayed. 67.6% of emissions are produced by offices from the Global South and 32.4% from the Global North. However, the percentage of staff based in offices from the category "Global South" as part of the whole confederation is 89%, thus offices in the Global North are emitting more per capita. This can also easily be seen when we look at the average carbon footprint of a CARE staff member in an office based in the Global South and one based in the Global North:

- Global North: average 7.47 tons CO_2-eq emitted per staff member
- Global South: average 1.89 tons CO_2-eq emitted per staff member
- Worldwide: average 2.49 tons CO_2-eq emitted per staff member

23 See https://data.worldbank.org/indicator/en.atm.co2e.pc

Figure 5: *Reported and estimated emissions in the Global North, the Global South and Worldwide.*



3. CARE's flights[24]

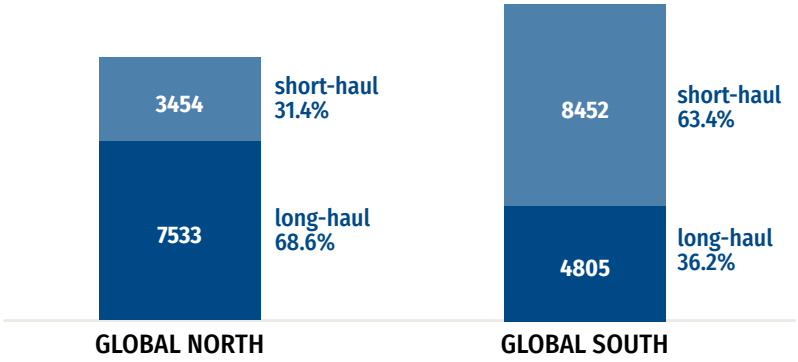
This chapter describes CARE's emissions from flights. Paragraph 3.1 describes the reported short-haul and long-haul flights and the total hours of flight time per CARE office. The reported CO_2-eq emissions from flights per office are not specified in this chapter: due to the use of different calculators by CARE offices it would not be fair to compare offices' reported flight emissions. However, in paragraph 3.2 the reported emissions and estimated emissions provide insight in the estimated total emissions from flights of CARE, differentiating between Global South and Global North. Paragraph 3.3 describes the various measures taken by CARE offices in the Global South and Global North to reduce and offset their flight emissions.

3.1 Reported long-haul and short-haul flights and hours of flights

Flights covering long distances generate a lot of emissions, but short flights are also very harmful to the climate as it is during take-off and landing that most energy is used. Short flights can often easily be substituted through other means of transport, such as trains or buses. This is particularly true for offices based in the Global North but is also valid for a number of offices in the Global South. Therefore, CARE offices were asked to provide information on the number of flights under 2 hours of flight time and the number of flights over 2 hours of flight time that were purchased by their office over the past financial year.

Global North and Global South have different flight patterns as shown in figure 6: offices in the Global North have taken many more long-haul flights (68.6%) than offices in the Global South (36.2%), while offices in the Global South took many more short-haul flights (63.4%) than the Global North (31.4%).

Figure 6: *Long- and Short-haul flights of Global North & Global South (reported)*



Figures 7, 8, 10 and 11 go more into depth and show the differences in flight patterns within Global North and Global South. Also, these figures provide an overview of the absolute number of long- and short-haul flights per office and the average number of long- and short-haul flights per staff member per office.

Besides long- and short-haul flights, CARE offices also reported on the total hours of flight time. This can provide insights in the average flight hours per staff member in a CARE office, when this is divided by staff number (see figure 9 and 12).

Global North

In Figure 7, an overview is given of the numbers of long-haul and short-haul flights per office as reported by 12 (out of 15) offices in the Global North. In absolute terms, the highest number of

- long-haul flights are from CARE USA (5418) followed by CARE Canada (926) and CARE UK (314).
- short-haul flights are from CARE USA (2108) followed by CARE Australia (608), CARE Canada (341) and CARE Switzerland (191).
- all flights are from CARE USA (7256), CARE Canada (1267) and CARE Australia (701).

CARE UK reported about 9% (30 flights) of their air travel to be on short haul flights whereas CARE Australia reported almost 87% (608) of their flight travel to be on short haul flights. At CARE Luxembourg, no staff embarked on a short haul flight over the past year.

24 More information on numbers of flights and emissions from flights may be found in Annex 6.

Figure 8 provides an overview of the average number of long- and short-haul flights per staff member[25], showing that

- CARE USA purchased the most long-haul flights per staff member (9.41) followed by CARE Canada (9.26)
- CARE Australia has the most short-haul flights per staff member (9.65) followed by CARE Switzerland (4.55)
- CARE Czech Republic flies least (0.86 long-haul flights and 0.57 short-haul flights per staff member).

Figure 9 demonstrates the average number of flight hours per staff member. This figure shows a slightly different trend than figure 8. For example, CARE Netherlands has an average of 2.65 flights per staff member (relatively on the low side compared to other Global North offices), however CARE Netherlands does have an average of 42.5 hours of flight time per staff member which is high compared to the average flight time by staff members in the Global North: 32.8 hours of flight time. The office with the highest flight time per staff member is CARE USA (65.4), followed by Canada (53.9). The office with the lowest flight time per staff member is CARE Czech Republic (5.0).

Figure 7: *Absolute number of long-haul and short-haul flights per reporting office for the Global North*

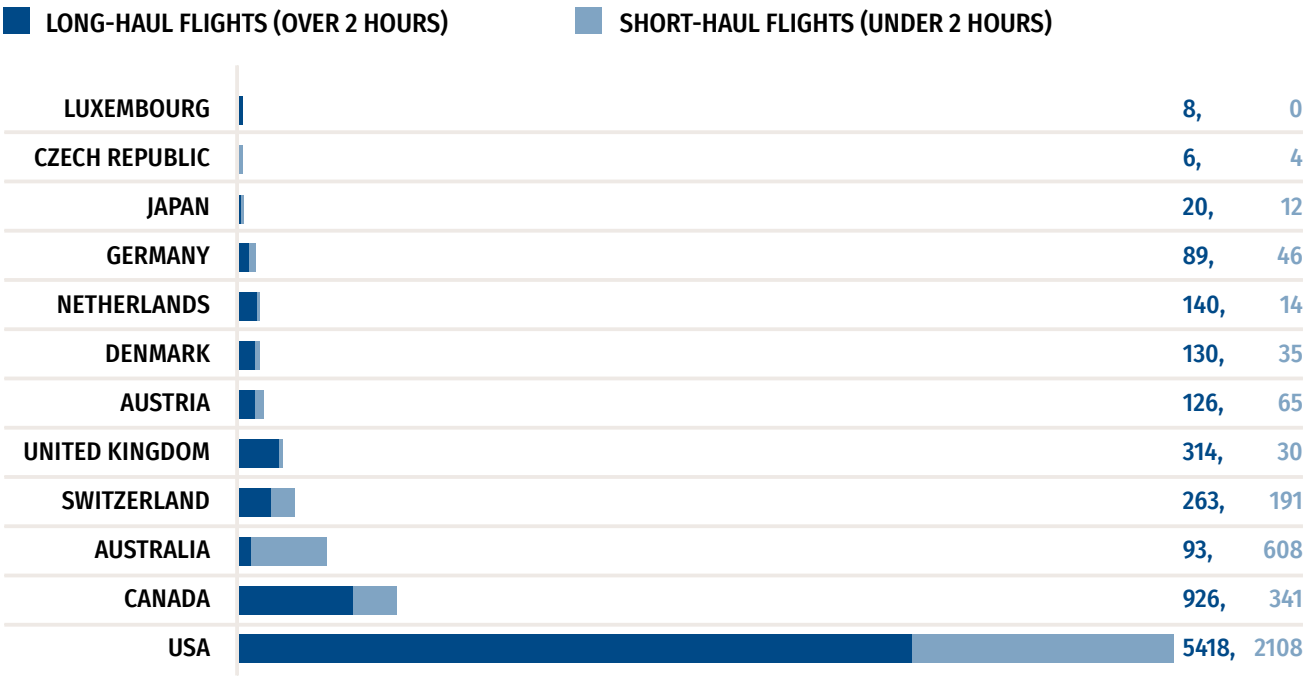
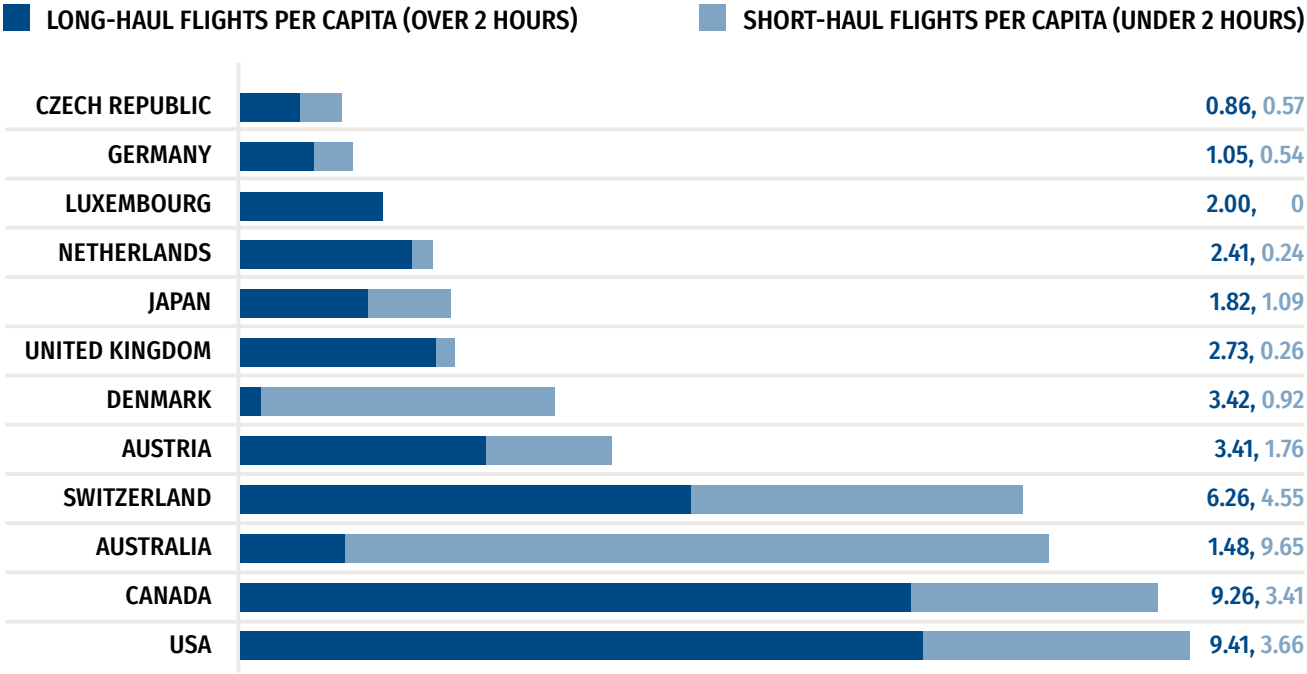
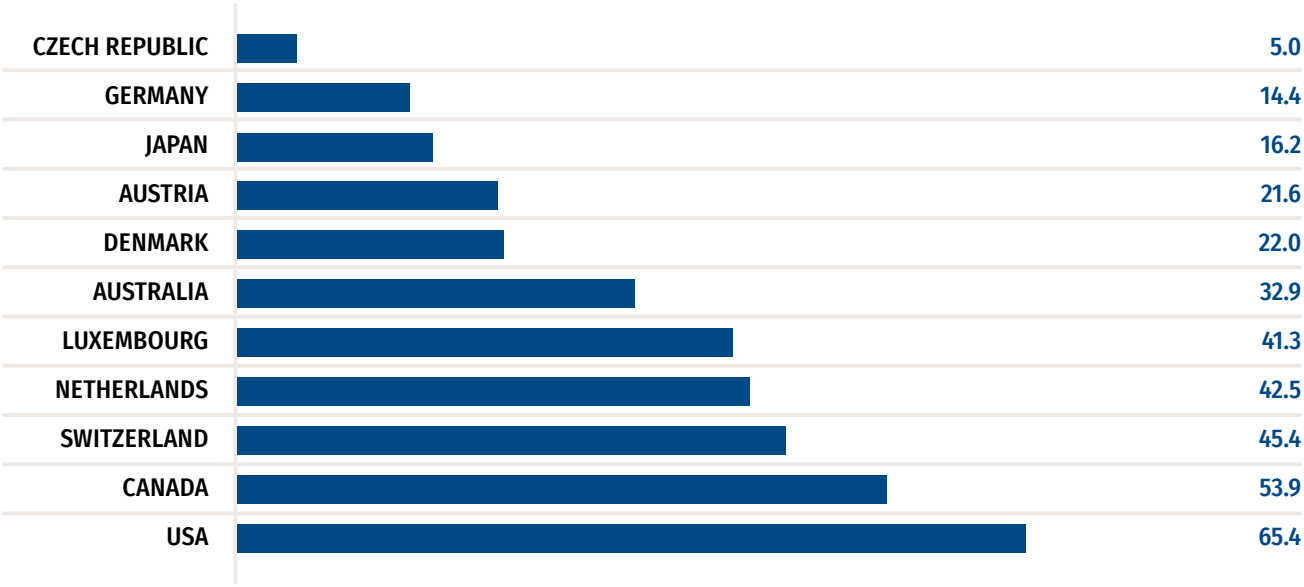


Figure 8: *Number of long-haul and short-haul flights per capita per reporting office for the Global North*



25 This figure might be skewed due to the fact that not all staff are required to travel by plane.

Figure 9: *Number of flight hours per capita per reporting office for the Global North*



Global South

From figure 10, it is clear that amongst offices operating from the Global South, the highest number of

- long-haul flights are purchased by CARE India (1685) followed by CARE Ethiopia (555) and CARE Peru (536).
- short-haul flights are taken by CARE India (1894) closely followed by CARE Bangladesh (1725) and Thailand (1292).
- all flights are purchased by CARE India (3579 flights) followed by CARE Bangladesh (1847) and Thailand (1348), while CARE Macedonia (1 flight), Liberia (3), Serbia (7) and Morocco (7) fly least.

However, a different picture appears when focus is on the number of long- and short-haul flights per staff member. Figure 11 shows that CARE Peru accounts for 4.96 long-haul flights per staff member, followed by CARE Indonesia with 4.16 flights per staff member and the Regional Office in Kenya with 3.76 flights per staff member.[26]

For short-haul flights, CARE Guinea purchased most (5.33 flights per staff member), followed by CARE Ecuador (4.71 flights per staff member) and CARE Thailand (4.47 flights per staff member). In total, CARE Guinea[27] purchased most flights (6.67 flights per staff member), followed by the regional office in Kenya[28] (6.31), CARE Indonesia (5.98) and Ecuador (5.88). CARE Jordan (0.061), Zimbabwe (0.062) and Morocco (0.15) have the lowest number of flights per staff member.

What also emerges from this picture is that almost all flights for CARE Bangladesh, Bosnia-Herzegovina, Kosovo, Laos, Liberia, Morocco and Thailand were short-haul flights.

Figure 12 shows a similar trend in which the regional office in Kenya (19.42 hours flight per staff member) has the highest number of flight hours, followed by CARE Indonesia (18.02) and Peru (15.38) CARE Morocco (0.22), Jordan (0.22) and Nigeria (0.30) have the lowest number of flight hours per staff member.

26 This figure might be skewed due to the fact that not all staff are required to travel by plane.
27 CARE Guinea is not a typical country office, as actions in Guinea where coordinated from the CARE Cote D'Ivoire office in FY19. According to the data, 3 staff members were working in Guinea and 20 flights were reported.
28 The Regional Office of Kenya was the only regional office that reported on the climate-smart indicators in PIIRS.

Figure 10: *Absolute number of long-haul and short-haul flights per reporting office for the Global South*

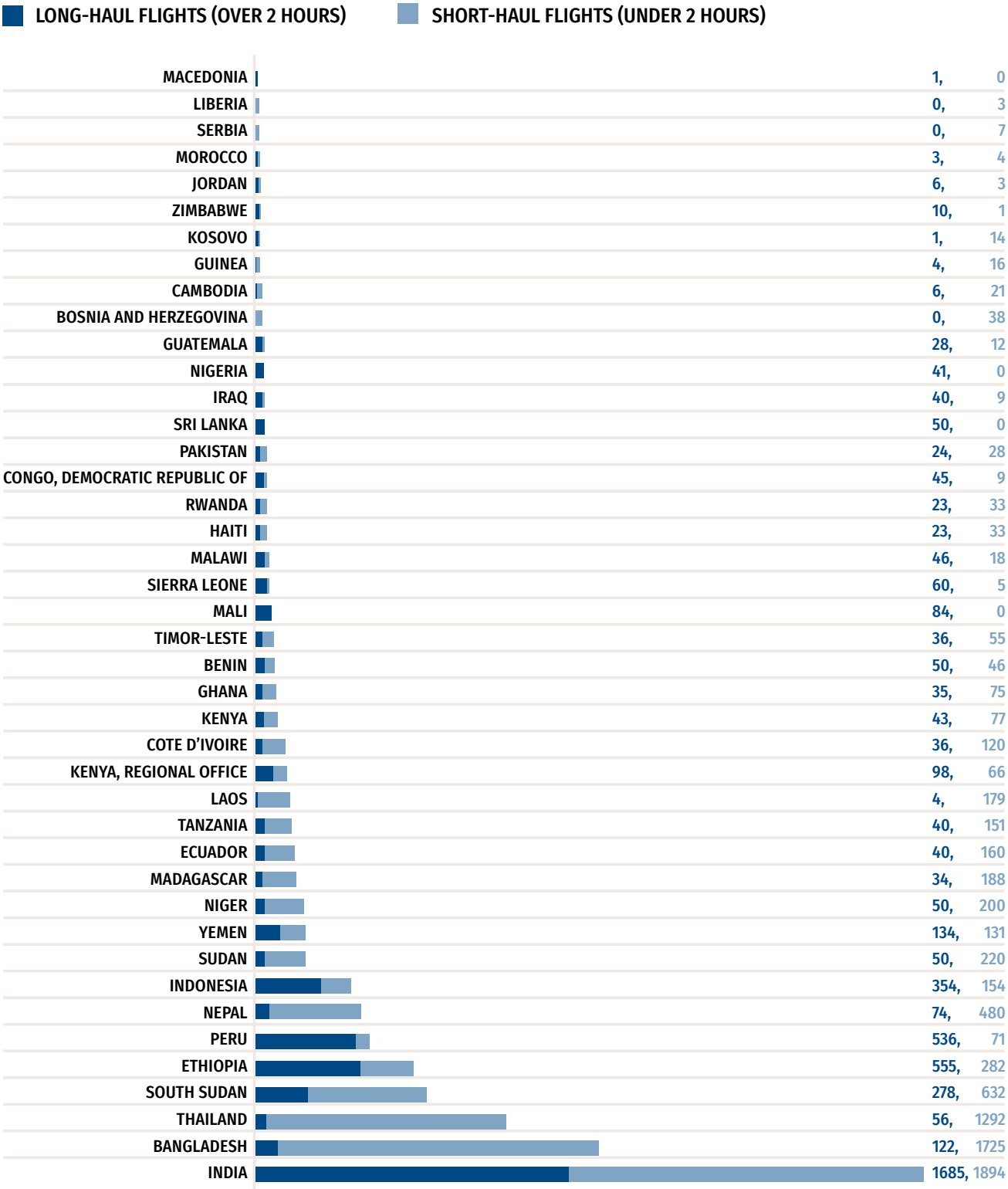


Figure 11: *Number of long-haul and short-haul flights per capita per reporting office for the Global South*

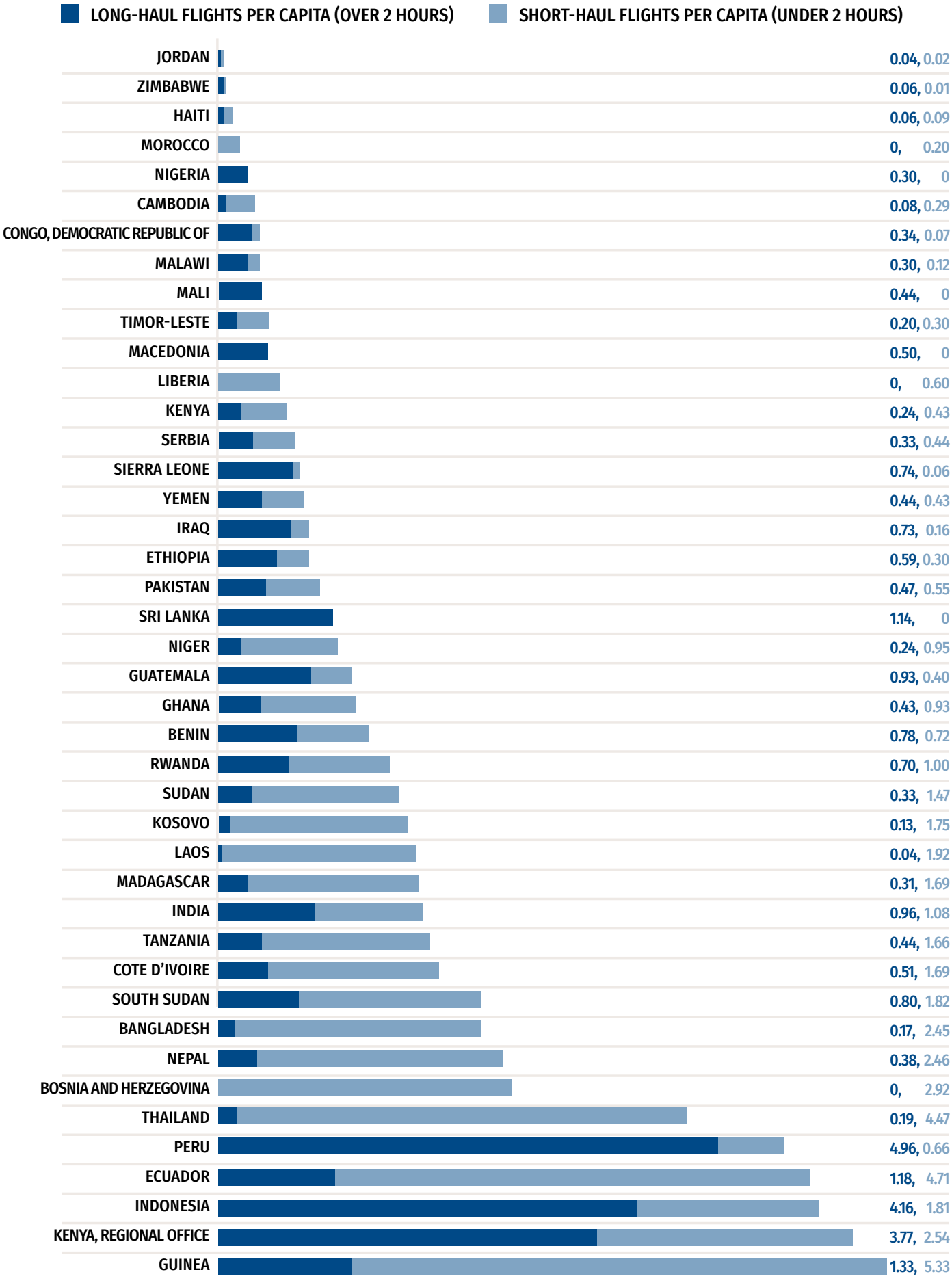
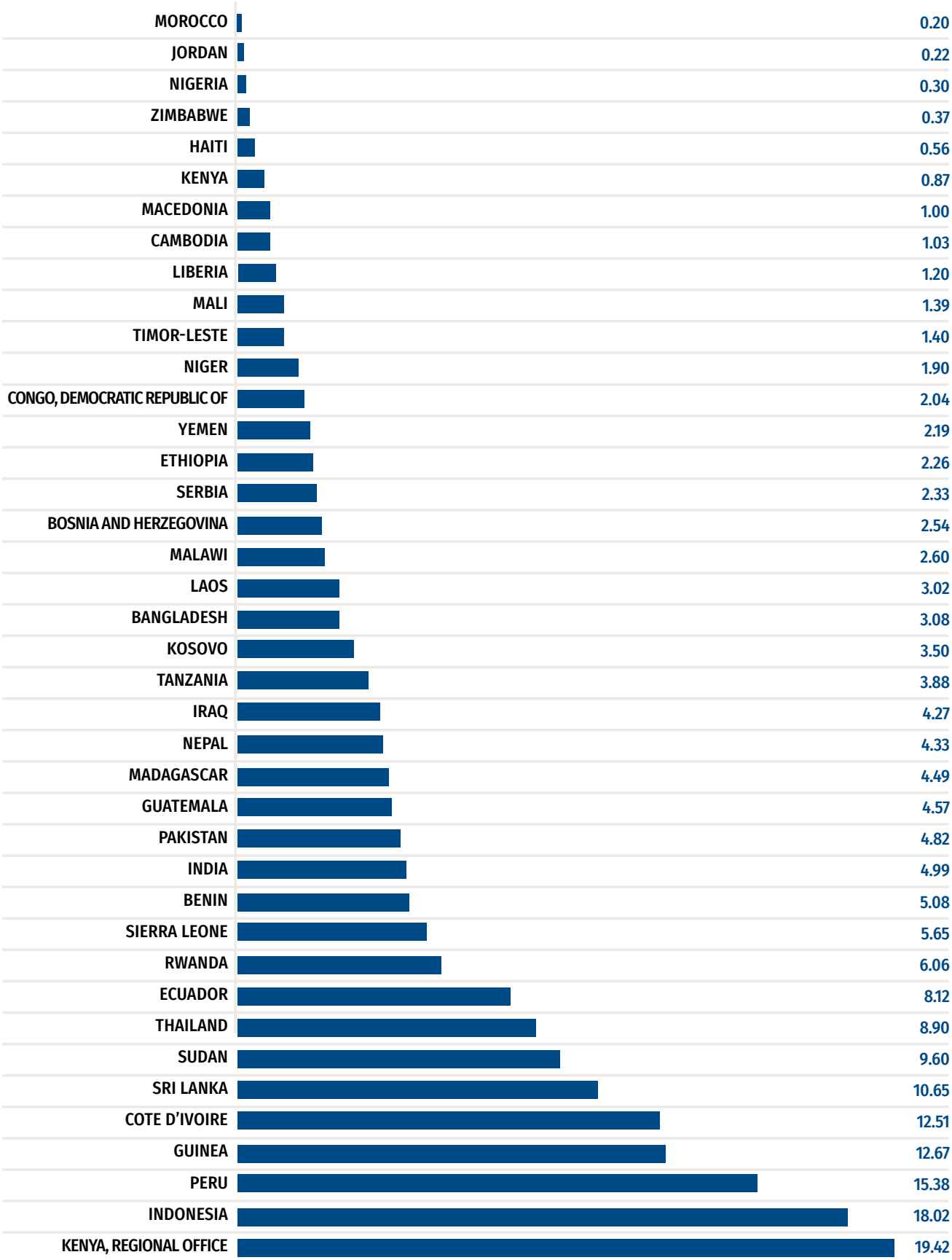


Figure 12: *Number of flight hours per capita per reporting office for the Global South*



Worldwide

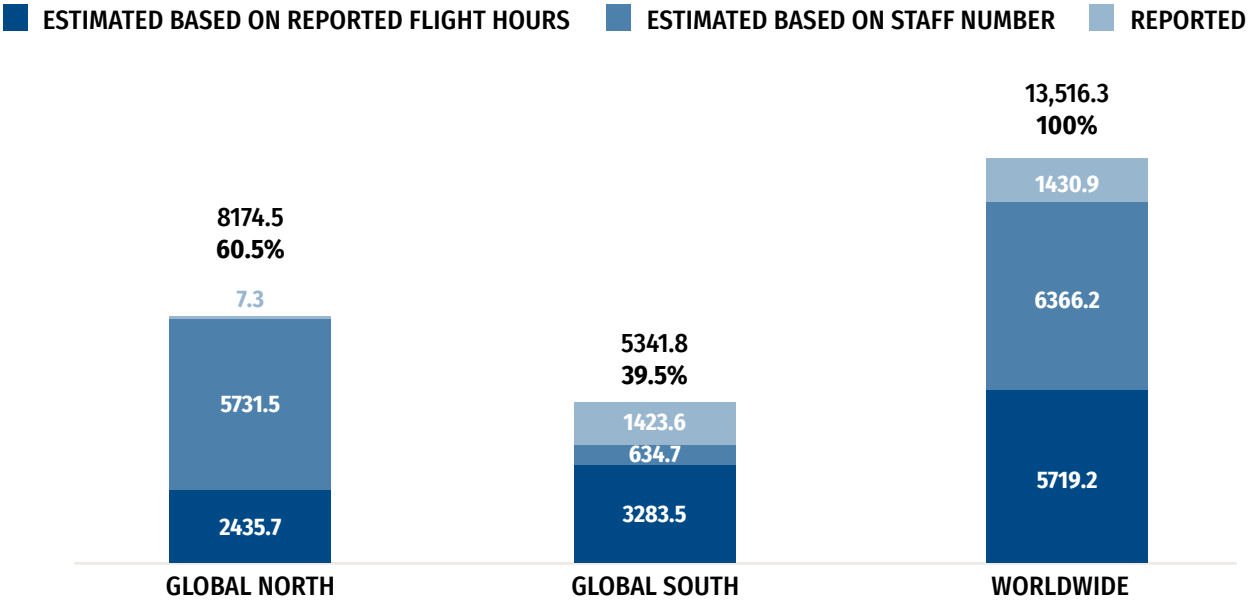
If we look at total numbers of reported short haul flights (11,906) the data shows that CARE USA, CARE India, CARE Bangladesh and CARE Thailand account for almost 59% (7,019) of all CARE's reported short haul flights. In terms of staff, these offices account for 37% of all staff from offices that have reported on their short and long-haul flights (3,319 staff out of a total of 9,063 staff). When we look at total numbers of reported long-haul flights (12,303), we can see that CARE USA and CARE India account for almost 58% (7,103) of all reported long-haul flights. This is remarkable as their staff account for 26% of all staff from offices that have reported on their short- and long-haul flights (2,326 staff out of a total of 9,063 staff).

3.2 Emissions from flights (reported & estimated)

In Figure 13, CARE's global emissions from flights are presented by including 1) reported emissions from flights, 2) estimated emissions based on number of flight hours, 3) estimated emissions based on staff number. It is important to note that the estimated numbers are very rough estimates and are likely to be much higher. The estimated emissions in category 2 and 3 were calculated based on the formulas explained in chapter 1: Methodology.

From Figure 13, it may be derived that 60.5% of CARE's emissions from flights are produced by offices from the Global North. These offices hire about 11% of all CARE's staff worldwide (1244 out of 11,507 staff globally). CCRP's rough estimate is that 13,516.3 tons CO_2-eq were emitted over FY19 as a result of CARE's flights. This is approximately 1.17 tons CO_2-eq per staff member which is more than 8 times the average total annual emissions of an Ethiopian citizen.[29][30]

Figure 13: *Reported and estimated emissions from flights by offices in the Global North the Global South and worldwide*



3.3 Measures to reduce and offset emission from flights

All offices were asked to report on 5 categories of measures in place to reduce or offset emissions from flights:

1. Awareness raising (e.g. setting up green teams, sensitization training etc.)
2. Alternatives/ measures (e.g. checklists for staff to consider before deciding to fly, stricter travel authorizations, promotion of trains, buses etc.)
3. Reduction targets (e.g. long- or short-term targets to reduce emissions including a baseline year)
4. Carbon budget (e.g. office-wide or individual carbon budget)
5. Offsetting (e.g. participation in a compensation scheme for unavoided emissions, either through an internal fund or through external parties)

29 Annual CO_2 emissions of the average Ethiopian citizen account for 0.144 ton, see https://data.worldbank.org/indicator/en.atm.co2e.pc?name_desc=false&locations=ET
30 But it is 13 times less than the average America citizen (15.5 tons per capita emissions)

Table 2 shows that that amongst the offices operating from the Global North, a majority of offices implement awareness raising measures such as setting up green teams. CARE Netherlands and CARE France have reported that they implement all the different types of measures. The measures least implemented are a set reduction target for the office, a carbon budget and offsetting emissions.

Table 3 shows that measures to reduce and offset carbon emissions are generally less prevalent in the offices operating from the Global South. Positive exceptions to that are CARE Ethiopia, which implements all the different measures and CARE Ecuador and Tanzania that are both implementing a majority of the potential measures to reduce emissions. The measures least implemented are a set reduction target for the office, a carbon budget and offsetting emissions.

Some good examples of ways that CARE offices reduce and offset emissions from flights were found in PIIRS:

- CARE Peru promotes 'meetings via skype to reduce emissions'.
- CARE Tanzania made 'a commitment to reduce and maintain limits to international travel' and improve 'video conferencing in order to promote virtual meetings'.

Table 2: *Measures taken by offices in the Global North to reduce and offset their emissions from flights*[31]

OFFICES IN GLOBAL NORTH	AWARENESS RAISING	ALTERNATIVES / MEASURES	REDUCTION TARGETS	CARBON BUDGET	OFFSETTING
Australia	Yes	Yes	Yes	No	Yes
Austria	Yes	Yes	Yes	No	Yes
Belgium					
Canada	Yes	Yes	Yes	No	No
Czech Republic	Yes	No	No	No	No
Denmark	Yes	Yes	No	No	No
France	Yes	Yes	Yes	Yes	Yes
Germany	Yes	Yes	Yes	No	Yes
Japan	No	No	No	No	No
Luxembourg	No	No	No	No	No
Netherlands	Yes	Yes	Yes	Yes	Yes
Norway	No	No	No	No	No
Switzerland	No	Yes	No	No	No
United Kingdom	Yes	Yes	No	No	No
United States of America					

Table 3: *Measures taken by offices in the Global South to reduce and offset their emissions from flights*

OFFICES IN GLOBAL SOUTH	AWARENESS RAISING	ALTERNATIVES / MEASURES	REDUCTION TARGETS	CARBON BUDGET	OFFSETTING
Bangladesh	Yes	No	No	No	No
Benin	No	No	No	No	No
Bosnia and Herzegovina	No	No	No	No	No
Cambodia	No	No	No	No	No
Chad	No	No	No	No	No
Congo, Democratic Republic	No	No	No	No	No
Cote d'Ivoire	No	No	No	No	No
Ecuador	Yes	Yes	Yes	No	No

31 CARE USA and CARE Brussels have not reported on the measures that may be implemented to reduce and offset emissions from flights.

OFFICES IN GLOBAL SOUTH	AWARENESS RAISING	ALTERNATIVES / MEASURES	REDUCTION TARGETS	CARBON BUDGET	OFFSETTING
Egypt	No	No	No	No	No
Ethiopia	Yes	Yes	Yes	Yes	Yes
Georgia	No	No	No	No	
Ghana	No	No	No	No	No
Guatemala	No	No	No	No	No
Guinea	Yes	No	No	No	No
Haiti	No	No	No	No	No
India	No	No	No	No	No
Indonesia	No	No	No	No	No
Iraq	No	No	No	No	No
Jordan	No	No	No	No	No
Kenya	Yes	No	No	No	No
Kenya, Regional office	No	No	No	No	No
Kosovo	No	No	No	No	No
Laos	Yes	No	No	No	No
Liberia	No	No	No	No	No
Macedonia	No	No	No	No	Yes
Madagascar	No	No	No	No	No
Malawi	No	No	No	No	No
Mali	No	No	No	No	No
Morocco	No	No	No	No	No
Nepal	No	No	No	No	No
Niger	Yes	Yes			
Nigeria	No	No	No	No	No
Pakistan	No	No	No	No	No
Peru	No	No	No	No	No
Rwanda	Yes	Yes	No	No	No
Serbia	No	No	No	No	No
Sierra Leone	No	No	No	No	No
South Sudan	No	No	No	No	No
Sri Lanka	Yes	Yes	No	No	No
Sudan					
Tanzania	Yes	Yes	Yes	Yes	
Thailand	No	No	No	No	No
Timor-Leste					
Togo	No	No	No	No	No
Vietnam	No	No	No	No	No
Yemen	No	No	No	No	No
Zimbabwe	No	No	No	No	No

4. CARE's fuel consumption from vehicle use[32]

This chapter describes CARE's emissions from vehicle use. As vehicles are not used by any of the offices in the Global North[33], this chapter focuses specifically on the Global South. Paragraph 4.1 describes the reported emissions differentiated by source (diesel, gas and other fuel) per CARE office. Paragraph 4.2 combines these numbers with the estimated emissions based on number of staff (see chapter 1: Methodology) to generate an overall picture of the total emissions from vehicle use in the Global South. Paragraph 4.3 describes the various measures taken by CARE offices in the Global South to reduce and offset these emissions.

4.1 Reported emissions from vehicle use

All offices were asked to report on the number of litres of fuel (diesel, gasoline, other fuels) for vehicle use. In this way, the emissions from vehicle use could be calculated (see chapter 1: Methodology). Offices in the category "Global North" have not reported on emissions from vehicle use, indicating that none of these offices use vehicles. For offices in the category "Global South", a total of 38 offices have reported their emissions from vehicle use. Total emissions in tons of CO_2-eq produced by these offices from vehicle use account for 7,175.3 tons CO_2-eq. A large majority of almost 78% of the emissions are caused by vehicles that run on diesel (5,573.7 tons CO_2-eq). The other 22% of greenhouse gas emissions are from gasoline cars (1,601.2 tons CO_2-eq) and (an almost negligible amount of) other fuels (0.4 tons CO_2-eq).

As demonstrated in Figure 14, the office that has reported most emissions from vehicle use is CARE Ethiopia with 1,133 tons of CO_2 -eq. This office accounts for almost 15% of all vehicle use related emissions that were reported by offices in the Global South, but also has many staff members (12.6%).

In Figure 15, it is shown that Ethiopia is not the highest emitter per capita based on vehicle use[34] - CARE Ethiopia emits 1.2 tons CO_2-eq per staff member. The highest CO_2-eq emissions per office staff member can be found in CARE Zimbabwe (3.17 tons CO_2-eq per staff member), CARE Yemen (2.93 tons CO_2-eq per staff member) and CARE Sierra Leone (2.92 tons CO_2-eq per staff member. The lowest CO_2-eq emissions per staff member are found in Nigeria (0.08 tons CO_2-eq per staff member).

32 For more information on emissions from fuel consumption for vehicle use, see Annex 7.
33 Travel for home-work commute was not included in the PIIRS file and therefore not included in this report.
34 This figure might be skewed due to the fact that not all staff are required to use a vehicle.

Figure 14: *Emissions from the reported consumption of a variety of fuels for vehicle use by offices in the Global South*

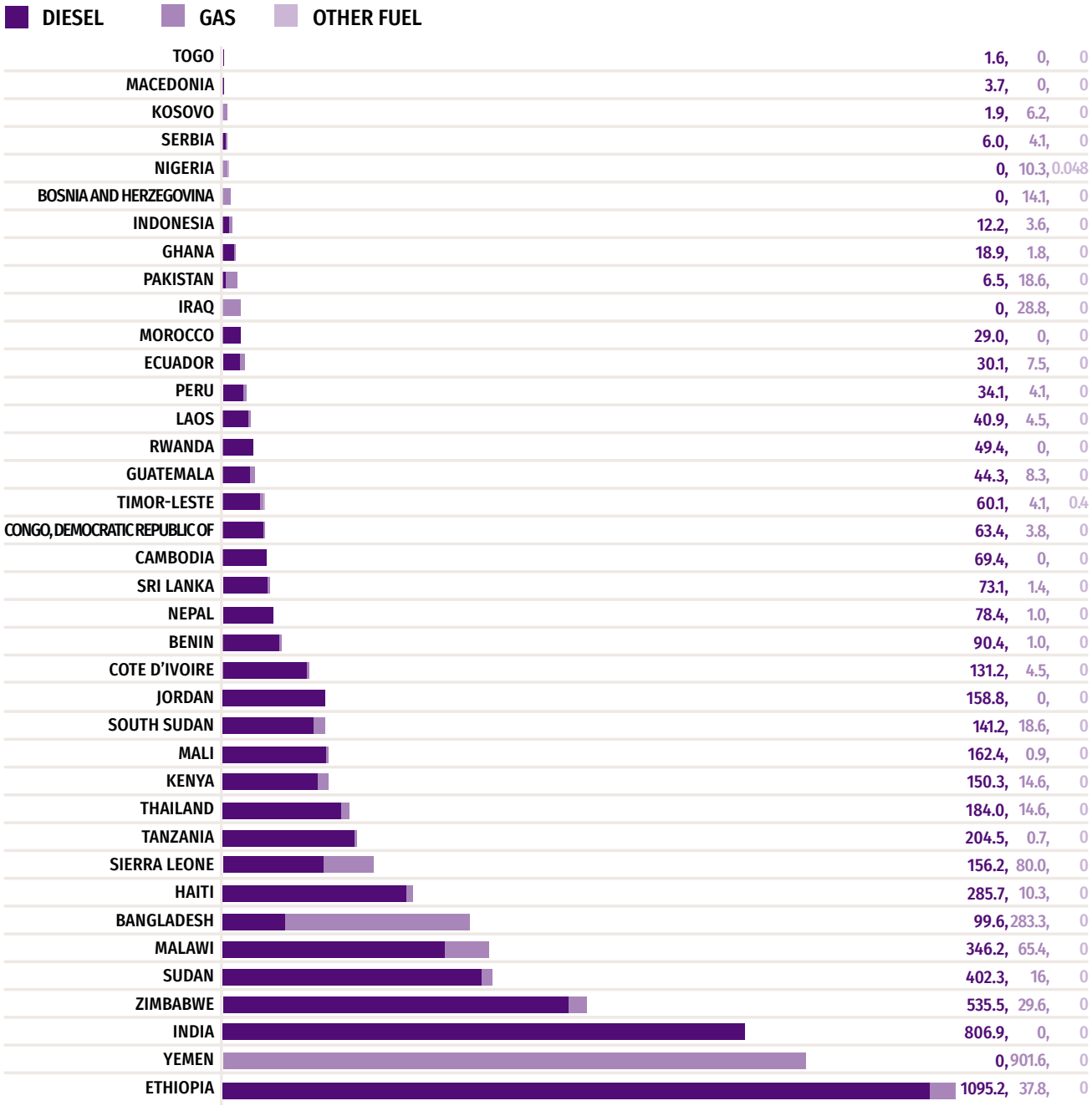
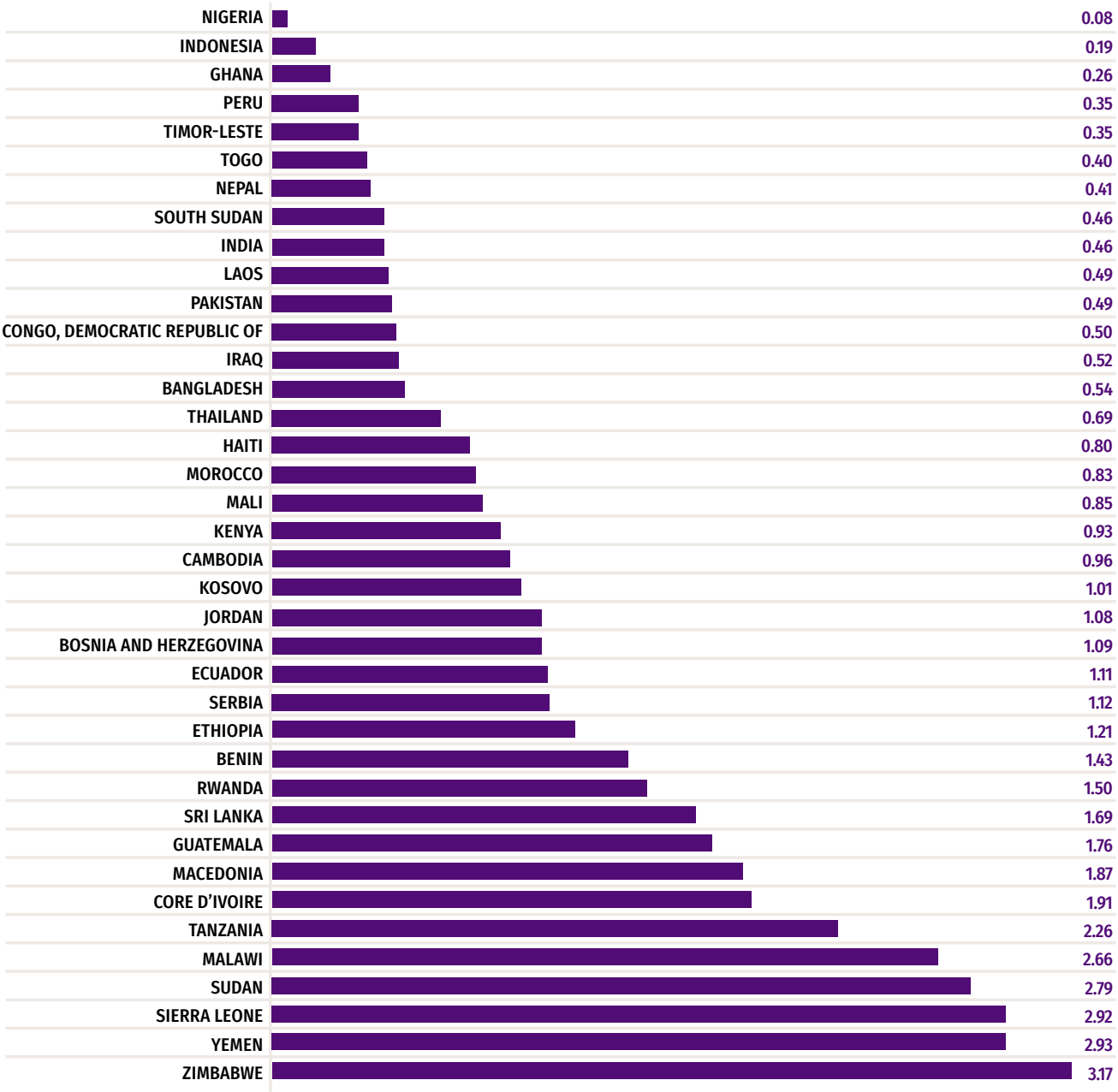


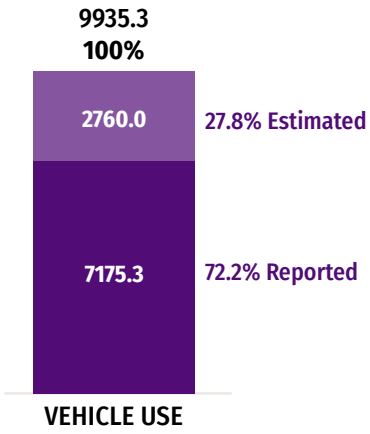
Figure 15: *Reported emissions from vehicle use per capita*



4.2 Emissions from vehicle use (reported & estimated)

Not all offices provided data with regards to fuel consumption from vehicle use. In order to present CARE with an outlook on CARE's emissions from vehicle use, formulas were developed to estimate unreported CO_2-eq emissions (see chapter 1: Methodology). In total, an estimated 9,935.3 tons CO_2-eq were emitted as a result of vehicle use. This is less than the total amount of estimated emissions from CARE's flights worldwide (13,516.3 tons CO_2-eq).

Figure 16: *Reported and estimated emissions from fuel consumption for vehicle use by offices in the Global South*



4.3 Measures to reduce and offset emissions from vehicle use

All offices have been asked to report on 5 categories of measures in place to reduce or offset emissions from vehicle use:

1. Awareness raising (e.g. setting up green teams, sensitization training etc.)
2. Alternatives/ measures (e.g. promotion of public transport, car-sharing etc.)
3. Reduction targets (e.g. long- or short-term targets to reduce emissions including a baseline year)
4. Carbon budget (e.g. office-wide or individual carbon budget)
5. Offsetting (e.g. participation in a compensation scheme for unavoided emissions, either through an internal fund or through external parties)

As can be seen in Table 4, there are generally very low efforts from offices to implement measures to reduce and offset emissions from vehicle use. Positive exceptions are CARE Ethiopia and CARE Iraq that implement measures in all categories. CARE Ecuador, Jordan, Pakistan and Tanzania are also positive examples of offices that are implementing measures under a majority of the categories. The measures least implemented are a set reduction target for the office, a carbon budget and offsetting emissions.

A few examples of ways CARE offices reduce or offset emissions from vehicle use are:

- CARE Chad's teams use public transport and limit their use of vehicles
- CARE Cambodia allows its staff to use a car only 'if at least 2 persons jointly travel', if one person is travelling s/he is advised to use public transport
- CARE Morocco favours carpooling if possible
- CARE Sri Lanka's 'travel policy includes modes of transport such as public service (bus and train) and the use of online platforms for meetings'

Although within PIIRS, questions related to vehicle use did not include home-work commute, a few offices tried to reduce these emissions as well:

- CARE Germany 'tries to create environmental awareness, e.g. through an employee survey on the routes to work (by car, public transport, bicycle, etc.)'
- CARE Luxembourg provides benefits to pay for public transport to their interns and short-term staff.

Table 4: *Measures taken by offices in the Global South to reduce and offset their emissions from vehicle use*

OFFICES IN GLOBAL SOUTH	AWARENESS RAISING	ALTERNATIVES / MEASURES	REDUCTION TARGETS	CARBON BUDGET	OFFSETTING
Bangladesh	Yes	No	No	No	No
Benin	No	No	No	No	No
Bosnia and Herzegovina	No	Yes	No	No	No
Cambodia	No	Yes	No	No	No
Chad	No	Yes	Yes	No	No
Congo, Democratic Republic of	No	No	No	No	No
Cote d'Ivoire	No	No	No	No	No
Ecuador	Yes	Yes	Yes	No	No
Egypt	No	No	No	No	No
Ethiopia	Yes	Yes	Yes	Yes	Yes
Georgia	No	Yes	No	No	
Ghana	Yes	Yes	No	No	No
Guatemala	No	No	No	No	No
Guinea	Yes	No	No	No	No
Haiti	No	No	No	No	No
India	No	No	No	No	No
Indonesia	No	No	No	No	No
Iraq	Yes	Yes	Yes	Yes	Yes
Jordan	Yes	Yes	Yes	Yes	No
Kenya	Yes	No	No	No	No
Kenya, Regional office	No	No	No	No	No
Kosovo	No	No	No	No	No
Laos	Yes	Yes	No	No	No
Liberia	No	No	No	No	No
Macedonia	No	No	No	No	Yes
Madagascar	No	No	No	No	No
Malawi	Yes	No	No	No	No
Mali	No	No	No	No	No
Morocco	No	Yes	No	No	No
Nepal	No	No	No	No	No
Niger	Yes	Yes			
Nigeria	No	No	No	No	No
Pakistan	Yes	Yes	Yes	Yes	No
Peru	No	No	No	No	
Rwanda	Yes	Yes	No	No	No
Serbia	Yes	Yes	No	No	No
Sierra Leone	No	No	No	No	No
South Sudan	No	No	No	No	No
Sri Lanka	Yes	Yes	No	No	No
Sudan					

OFFICES IN GLOBAL SOUTH	AWARENESS RAISING	ALTERNATIVES / MEASURES	REDUCTION TARGETS	CARBON BUDGET	OFFSETTING
Tanzania	Yes	Yes	Yes	Yes	
Thailand	No	No	No	No	No
Timor-Leste					
Togo	No	No	No	No	No
Vietnam	No	No	No	No	No
Yemen	No	No	No	No	No
Zimbabwe	Yes	No	Yes	No	No

5. CARE's office energy consumption[35]

This chapter describes CARE's emissions from office energy consumption. Paragraph 5.1 describes the reported emissions per CARE office. Paragraph 5.2 combines these numbers with the estimated emissions based on number of staff (see chapter 1: Methodology) to generate an overall picture of the total emissions related to office energy consumption. Paragraph 5.3 describes the various measures taken by CARE offices to reduce and offset these emissions.

5.1 Reported emissions from office energy consumption

All offices were asked to report on their office energy consumption, specifically the use of electricity, gas and fuels (for electricity). Through identified formulas (see chapter 1: Methodology) emissions from office energy use were calculated.

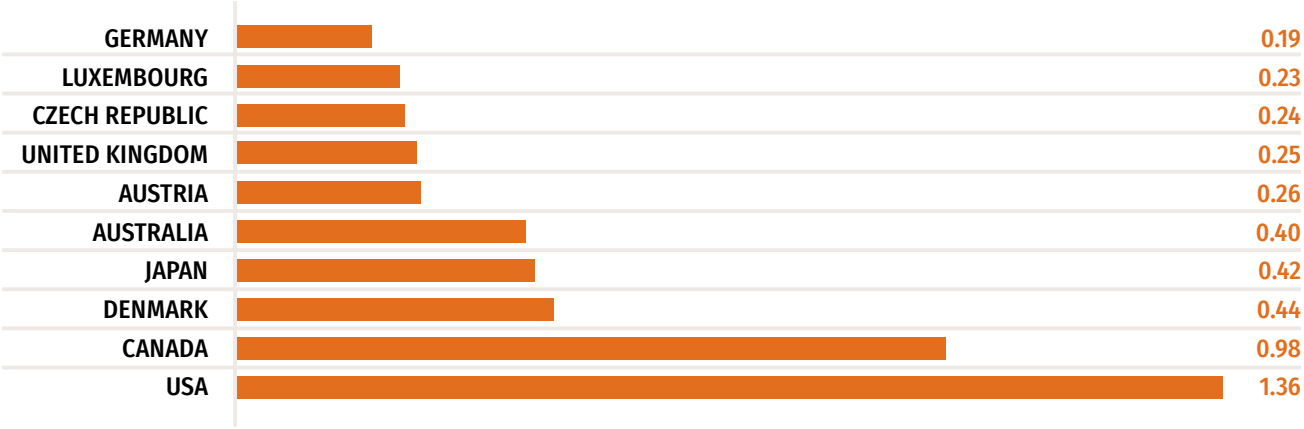
Global North

In Figure 17, each bar represents the total amount of tons CO_2-eq emissions for office energy consumption in the Global North. As can be seen below, CARE USA (784.9 tons CO_2-eq) emits most and CARE Luxembourg (0.91) least. In Figure 18, the amount of tons CO_2-eq emissions per staff member is shown. The data show that CARE USA has the highest CO_2-eq emissions per staff member (1.36), followed by CARE Canada (0.98). CARE Germany (0.19) and Luxembourg (0.23) account for the lowest per capita emissions from office energy consumption.

CARE France and CARE Norway do not show up in this figure as they were unable to submit data on the CO_2-intensity [g/kWh] of their electricity. However, as they both derive their electricity from a renewable energy source, it is expected that their emissions are very low. CO_2 emissions from office energy consumption in the Global North are mainly from electricity. Only CARE USA reports another source for emissions besides electricity: gas (0.95 ton of CO_2-eq over FY19).

Figure 17: *Emissions in tons CO_2-eq from office energy consumption by reporting offices in the Global North* [36]

Figure 18: *Emissions in tons CO_2-eq per capita from office energy consumption by reporting offices in the Global North*



35 For more information on emissions from office energy consumption, see Annex 8.
36 No data were received from CARE Netherlands and CARE Switzerland (the CI secretariat office in Geneva).

Global South

In Figure 19, each bar represents the emissions from office energy consumption in offices in the Global South. As could be expected due the size of the offices, emissions from office energy consumption are far higher than from offices operating from the Global North. CARE India (469.2 tons CO_2-eq) emits most, followed by CARE Niger (409.0) and Malawi (326.2).

Figure 20 presents per capita emissions from office energy consumption. It shows that Malawi (2.10 tons CO_2-eq per staff member) has the highest per capita office energy consumption, followed by CARE Niger (1.94 tons CO_2-eq per staff member) and Rwanda (1.88 tons CO_2-eq per staff member).

Figure 19: *Emissions in tons CO_2-eq from office energy consumption by reporting offices in the Global South*

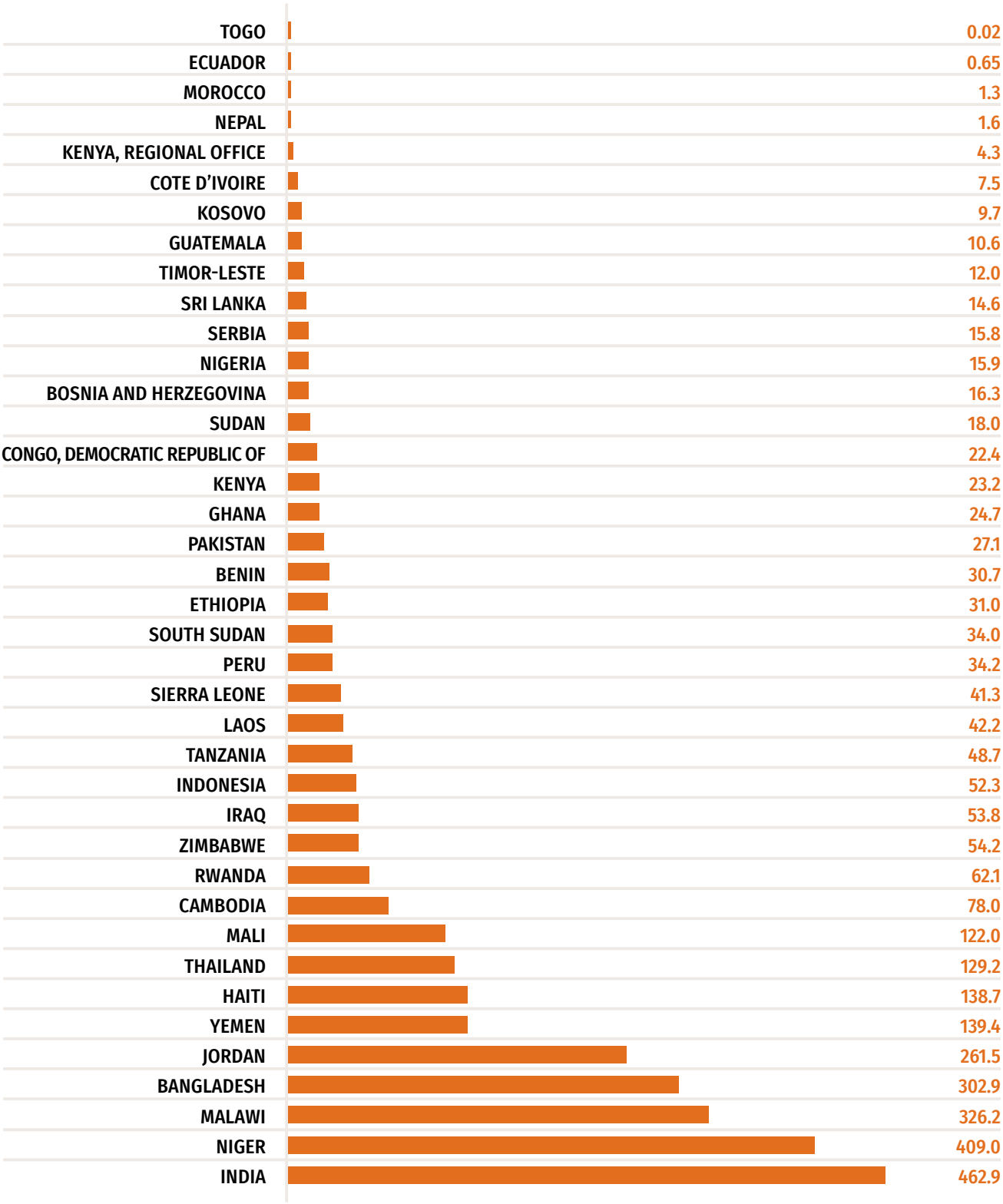


Figure 20: *Emissions in tons CO_2-eq per capita from office energy consumption by reporting offices in the Global South*

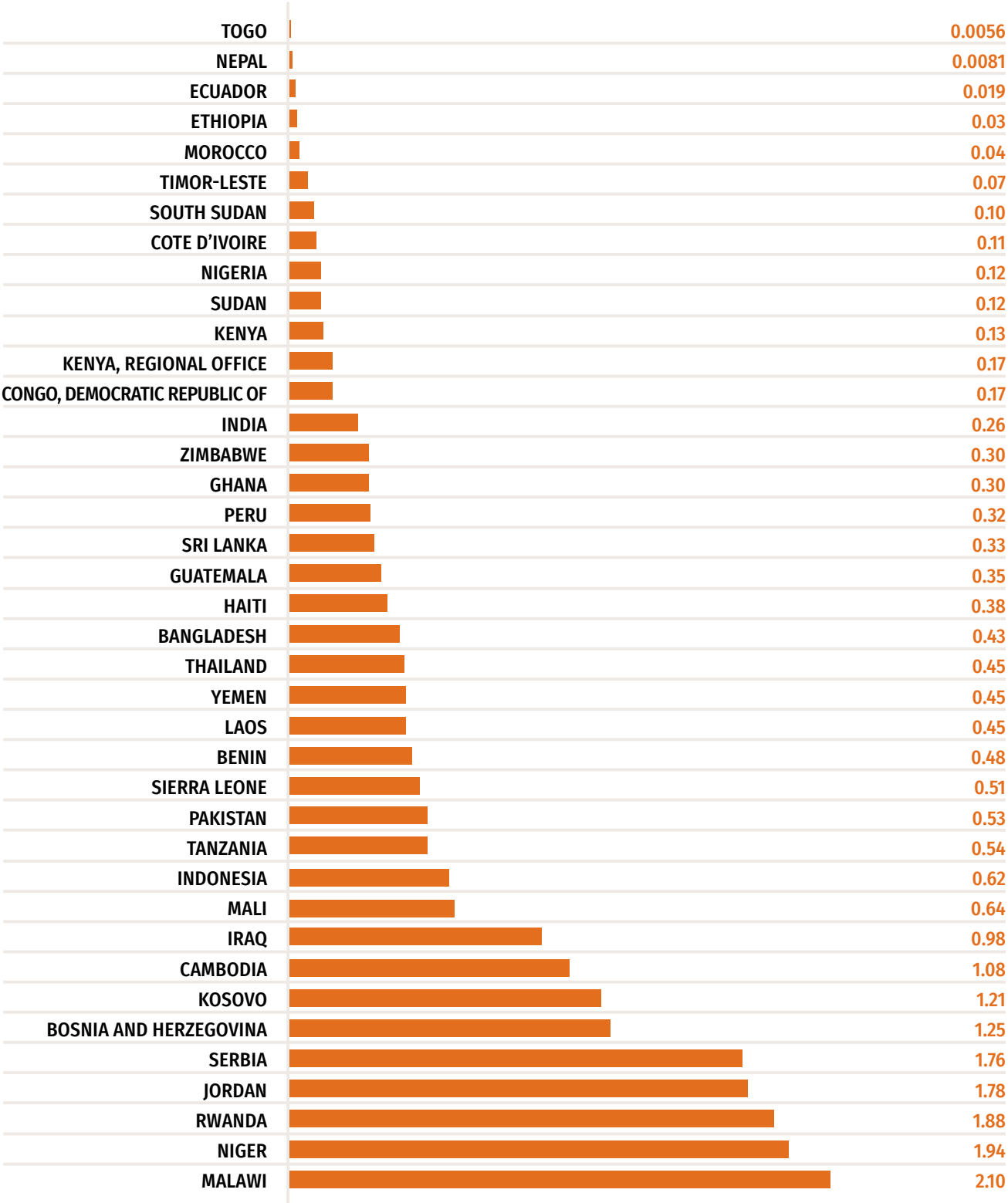
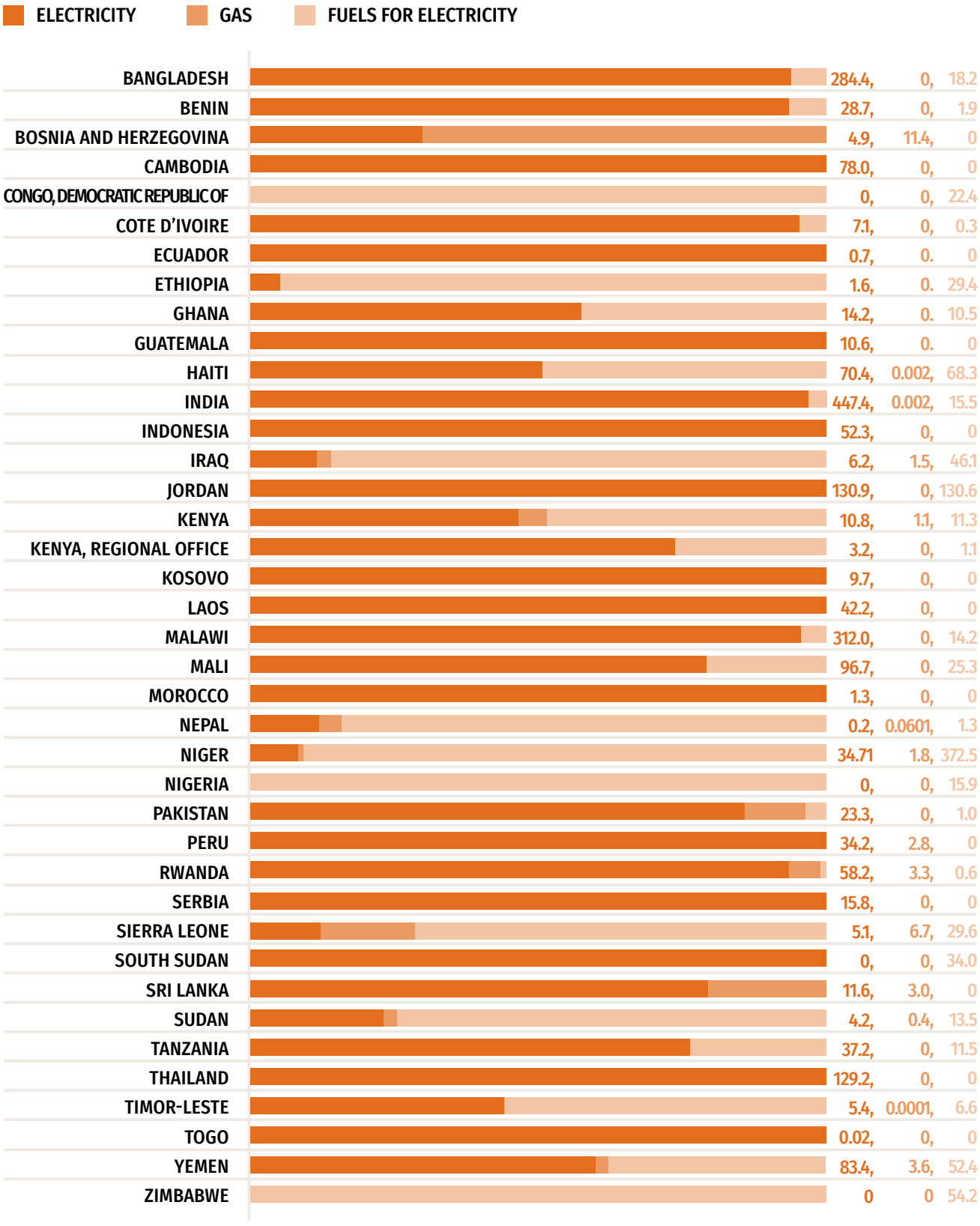


Figure 21 shows that there is a higher variety of sources for office energy in the Global South than in the Global North where gas is rarely used. Also, in the Global South, the use of generators is more common for generating electricity. As can be seen in Figure 12, there are a number of offices that only derive their electricity from fuels: CARE Zimbabwe, CARE South Sudan, CARE Nigeria and CARE DRC.

Figure 21: *Emissions from different sources of energy by reporting offices from the Global South*

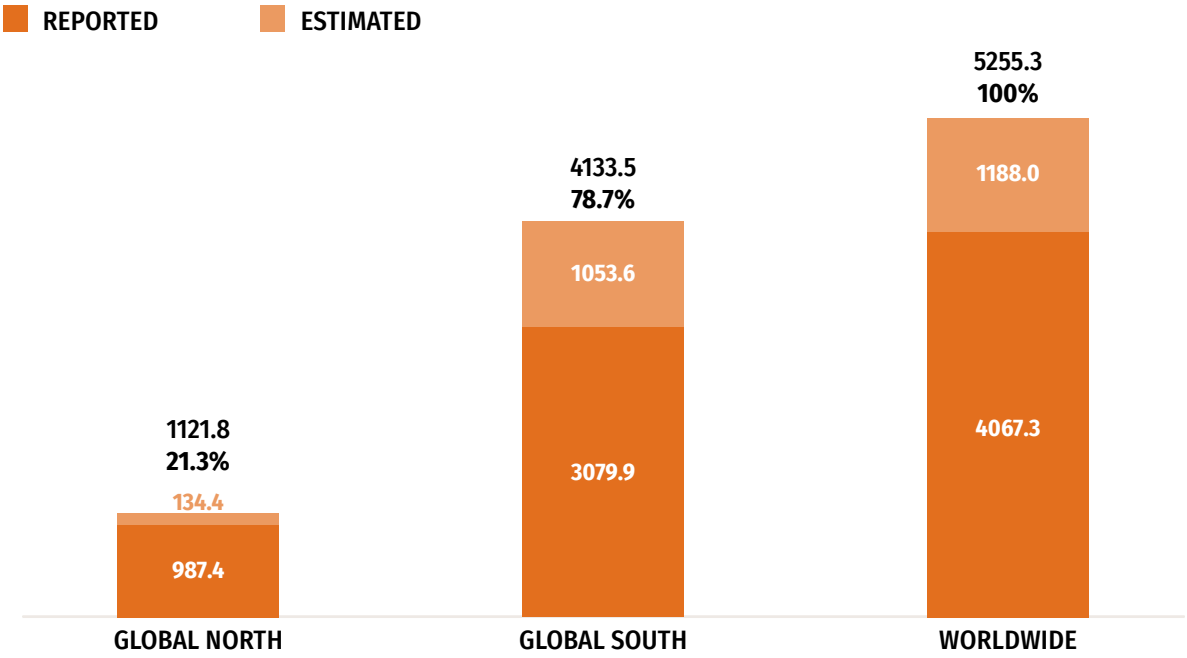


5.2 Emissions from Office Energy Consumption (reported & estimated)

Based on the formulas described in chapter 1: Methodology, estimates were made for CO_2-eq emissions from offices that have not reported in PIIRS on their office energy consumption. Figure 22 presents both CARE's reported as well as CARE's estimated emissions from offices in the Global North as well as those in the Global South. It shows that a total of 5,255.3 tons CO_2-eq (reported and estimated) is emitted by CARE globally for office energy consumption. A total of 4,133.5 tons CO_2-eq (78.7%) is emitted by the Global South and 1,121.8 tons CO_2-eq (21.3%) by the Global North. However, the percentage of staff based in offices from the category "Global South" as part of the whole confederation is 89%. This means that offices from the Category "Global North" emit relatively more.

An interesting fact is that emissions from CARE Niger, CARE Malawi, CARE Bangladesh, CARE Jordan, CARE India and CARE USA account for almost half (48.5%) of all emissions (reported and estimated) from office energy consumption. Their staff accounts for 30.8%.

Figure 22: *Reported and estimated emissions from office energy consumption by offices in the Global North, the Global South and Worldwide.*



5.3 Measures to reduce and offset emissions from office energy consumption

All offices have been asked to report on 5 categories of measures in place to reduce and offset emissions from office energy:

1. Awareness raising (e.g. setting up green teams, sensitization training etc.)
2. Alternatives/ measures (e.g. install energy-efficient lighting, motion sensors, purchase of renewable energy etc.)
3. Reduction targets (e.g. long- or short-term targets to reduce emissions including a baseline year)
4. Carbon budget (e.g. office-wide or individual carbon budget)
5. Offsetting (e.g. participation in a compensation scheme for unavoided emissions, either through an internal fund or through external parties)

Not all offices that reported on their emissions, have reported on the measures that they implement to reduce and offset their emissions. As can be seen from Table 5 and Table 6, there is a lot of room for improvement, both in the Global South as well as in the Global North. The measures least implemented are setting a reduction target for the office, establishing a carbon budget and offsetting emissions.

A few examples of ways CARE offices reduce or offset emissions from office energy consumption are:

- CARE Chad, CARE Cambodia, CARE Mali and CARE Yemen raised awareness to reduce energy consumption.
- CARE Peru uses sensors to reduce its energy consumption and CARE Yemen mainly uses of solar power for electricity.
- CARE Germany, CARE France, CARE Kenya and CARE Sri Lanka have awareness raising activities to reduce office energy emissions.
- CARE Netherlands purchased new copy machines that are more environmentally friendly, energy efficient and reduce greenhouse gas emissions with 55%.

Table 5: *Measures taken by offices in the Global North to reduce and offset their emissions from office energy consumption*

OFFICES IN GLOBAL NORTH	AWARENESS RAISING	ALTERNATIVES / MEASURES	REDUCTION TARGETS	CARBON BUDGET	OFFSETTING
Australia	Yes	Yes	No	No	No
Austria	Yes	Yes	Yes	No	Yes
Belgium					
Canada	Yes	Yes	Yes	No	No
Czech Republic	Yes	No	No	No	No
Denmark	Yes	No	No	No	No
France	Yes	Yes	Yes	No	No
Germany	Yes	Yes	Yes	No	Yes
Japan	Yes	No	No	No	No
Luxembourg	Yes	Yes	No	No	No
Netherlands	Yes	Yes	Yes	No	No
Norway	No	No	No	No	No
Switzerland					
United Kingdom	Yes	Yes	No	No	No
United States of America					

Table 6: *Measures taken by offices in the Global North to reduce and offset their emissions from office energy consumption*

OFFICES IN GLOBAL SOUTH	AWARENESS RAISING	ALTERNATIVES / MEASURES	REDUCTION TARGETS	CARBON BUDGET	OFFSETTING
Bangladesh	Yes	No	No	No	No
Benin	No	No	No	No	No
Bosnia and Herzegovina	No	Yes	No	No	No
Cambodia	Yes	Yes	No	No	No
Chad	Yes	No	No	No	No
Congo, Democratic Republic	Yes	Yes	No	No	No
Cote d'Ivoire	No	No	No	No	No
Ecuador	Yes	Yes	Yes	Yes	No
Egypt	No	No	No	No	No
Ethiopia	Yes	Yes	Yes	Yes	Yes
Georgia	No	Yes	No	No	
Ghana	Yes	Yes	Yes	No	No

OFFICES IN GLOBAL SOUTH	AWARENESS RAISING	ALTERNATIVES / MEASURES	REDUCTION TARGETS	CARBON BUDGET	OFFSETTING
Guatemala	No	No	No	No	No
Guinea	No	No	No	No	No
Haiti	No	No	No	No	No
India	Yes	No	No	No	No
Indonesia	No	No	No	No	No
Iraq	Yes	Yes	No	No	Yes
Jordan	Yes	No	Yes	No	No
Kenya	Yes	Yes	No	No	No
Kenya, Regional office	Yes	Yes	No	No	No
Kosovo	No	No	No	No	No
Laos	Yes	Yes	No	No	No
Liberia	No	No	No	No	No
Macedonia	No	No	No	Yes	Yes
Madagascar	Yes	Yes	Yes	No	No
Malawi	No	No	No	No	No
Mali	Yes	No	No	No	No
Morocco	No	No	No	No	No
Nepal	No	No	No	No	No
Niger	Yes	Yes			
Nigeria	No	No	No	No	No
Pakistan	Yes	Yes	Yes	Yes	Yes
Peru	Yes	Yes	No	No	No
Rwanda	Yes	Yes	No	No	No
Serbia	Yes	Yes	No	No	No
Sierra Leone	No	No	No	No	No
South Sudan	No	No	No	No	No
Sri Lanka	Yes	Yes	Yes	No	No
Sudan					
Tanzania	Yes	Yes	Yes	Yes	
Thailand	No	No	No	No	No
Timor-Leste					
Togo	No	No	No	No	No
Vietnam	No	No	No	No	No
Yemen	Yes	Yes	No	No	No
Zimbabwe	No	Yes	No	No	No

Recommendations

Based on the above analysis, the following recommendations are given to CARE:

1. Few CARE offices have set reduction targets for their offices' emissions. It is recommended that ambitious emission reduction targets with clear milestones for 2025 and 2030 are set by each CARE office before the end of FY21. The reduction target should refer to a baseline year and should strive to reduce emissions in comparison to that year by a certain percentage. The target must be in line with what is needed to stay below a 1.5 degrees Celsius global temperature increase.

2. A quick win for CARE in terms of emission reductions should be the abolishment of short-haul flights (flights under 2 hours of flight time) in areas where alternative modes of transport (such as buses or trains) exist. This may be done by offices through putting restrictions on short-haul flights that can easily be replaced by other less carbon intense means.

3. With regards to long-haul flights, it must be noted that, though flying is sometimes a necessity, the technology for distance meetings such as Zoom and Teams has advanced rapidly over the past years and must always be first considered. It is recommended that CARE offices reinforce travel authorizations by requiring the consideration of replacing travel with online and distant engagement.

4. A large share of CARE's global emissions is caused by fuel consumption from vehicles by offices in the Global South. It is recommended to look into driving habits and prioritize the purchase of cleaner vehicles.

5. In order to reduce emissions from office energy consumption, a rapid shift must take place to 100% renewable energies. These energies could either be purchased or self-produced.

6. Though reducing emissions is the best way to limit one's carbon footprint, it is important to take responsibility for the emissions CARE offices produce. Using credible carbon offsets from projects that have a high social impact and environmental integrity is better than doing nothing at all. CCRP is setting up such a joint CARE offsetting programme[37] and recommends that all CARE offices join this program to offset their unavoided emissions.

7. Increasingly more CARE offices have Green Teams in place. It is recommended that those offices that do not yet have an established Green Team do so before the end of FY21.[38]

8. Coordination between CARE offices globally must be strengthened to ensure knowledge sharing and exchange of good practices in CARE's offices to reduce emissions.

9. The induction of staff is an important moment to sensitize colleagues on the importance of climate change, its effects on the poorest and most vulnerable as well as our own responsibility in reducing our emissions. It is recommended that this becomes a standardized part of all staff's introduction to CARE.

10. During this first PIIRS reporting period, not all CARE offices used the same calculator to account for their emissions from flights. It is recommended that in the next PIIRS reporting period, all CARE offices use the same calculator (Atmosfair) to ensure a more reliable calculation of CARE's emissions from flights.

37 Contact Edel Heuven for more information on CARE's joint carbon offsetting programme.
38 Contact GreenTeams@careinternational.org to connect with other Green Teams.

Annex 1[39]

Reporting CARE's carbon footprint and Climate-Smart practices in PIIRS[1]

Guidance note

This guidance document provides information for all CARE offices (Country Offices, Candidates, Members, Affiliates) on how to report greenhouse gas (GHG) emissions and climate-smart practices into PIIRS.

CONTENTS

I. INTRODUCTION

What is a Climate-Smart organization?
A climate-smart organization measures its emissions, reduces them as much as possible and compensates its unavoided emissions.

As an organization dedicated to addressing the underlying causes of poverty and social injustice, CARE is a serious advocate for an urgent, effective and equitable response to climate change. This includes an ambitious commitment by CARE itself to adopt practices that reduce GHG emissions that are causing climate change.

To remain within a global temperature increase of 1.5°C, global GHG emissions in 2030 need to be approximately 55 percent lower than in 2017 (IPCC, 2018). In tonnes CO2e emissions, this would mean going from an average of 4.8 tonnes CO2e per capita in 2017 to 2.3 tonnes CO2e per capita in 2030[2]. In comparison: a direct round trip flight from Paris to New Delhi produces 3.4 tonnes of CO2e emissions per passenger, which is far more than the 2030 climate compatible annual emissions budget for one person.

Reporting on CARE's carbon footprint and climate-smart practices is a part of CARE's Program Information and Impact Reporting System (PIIRS), and is done for the following purposes:

- To have an annual global overview of the total amount of GHG emissions generated by CARE
- To have a global overview of the total amount of GHG emission reductions by CARE over consecutive years
- To have a global overview on the types of measures developed by CARE offices to reduce and/or to offset emissions.
- To generate information that supports reflection and learning around good practices to reduce emissions and about areas that require improvement and support.

All data retrieved will be analysed and results will be shared with all CARE offices in an annual report.

[1] http://careglobalmel.careinternationalwikis.org/global_data

[2] Boden et al. (2017), UNFCCC (2018), BP (2018)

39 http://careglobalmel.careinternationalwikis.org/_media/care-climatesmart_guidance_note_en_new_version.pdf

II. HOW TO REPORT CARE'S CARBON FOOTPRINT AND CLIMATE-SMART PRACTICES IN PIIRS

Calculating GHG emissions is a multi-step process. There are three main sources of GHG emissions in CARE offices: flight related emissions (i), vehicle related emissions (ii) and office energy consumption related emissions (iii).

Which office information should be reported in PIIRS?

Each CARE office is asked to report on the gathered information of all its different offices in the country. For example, CARE USA will report on the emissions related to its Atlanta Headquarters and all the sub-offices in the USA but will not report on the emissions of the Country Offices it leads in the Global South. CARE Uganda will report on the emissions of its national office in Kampala and all its sub-offices in Uganda.

Recommendation:

Experience has shown that it is preferable to monitor emissions on a continuous basis – using a live spreadsheet or database – rather than calculate emissions in one large annual number-crunching exercise. Not only does this make the task more manageable, but it also keeps the topic alive and increases staff's awareness. See below an example of a spreadsheet for flight-related emissions.

a	Exercice Fiscal	Date	Reason of travel	Depart	Arrival	One /	Means of transportation	CO2 (t)	Name	Unit	Country
FY18 long-haul flight	FY18	Aug/17	capitalization meet	paris	beyrouth	ar	long-haul flight	1,360	Antoine	DG	Lebanon
FY18 long-haul flight	FY18	Nov/17	monitoring visit	paris	casablanca	ar	long-haul flight	0,764	Antoine	DG	Morocco
FY18 long-haul flight	FY18	Jan/18	others	paris	oslo	ar	long-haul flight	0,660	Antoine	DG	norway
FY18 short-haul flight	FY18	Mar/18	others	paris	nice	ar	short-haul flight	0,33	Antoine	DG	France
FY18 long-haul flight	FY18	Jun/18	monitoring	paris	beyrouth	ar	long-haul flight	1,360	Antoine	DG	Lebanon

Step 1 Flights and greenhouse gas emissions during the FY

The impact of air travel

One return flight from Atlanta to Nairobi and back generates almost 10 tonnes of CO2e emissions (www.atmosfair.de), which is more than the average total annual emissions of a European citizen (ca 7.7 tonnes CO2e per year in 2017) and almost 100 times the average total annual emissions of a Malagasy citizen (0.1 tonnes CO2e per year in 2017).

PIIRS Question

Number of (#) flights under 2 hours of flight time (i), number of flights over 2 hours of flight time (ii), total number of hours of all flights (iii) and total number of flights (iv).

Flights covering longer distances (for example from Bonn to Maputo) generate a lot of emissions. But short flights (for example from The Hague to Geneva) are also very harmful for our climate as it is during take-off and landing that most energy is used. For this reason, the PIIRS form makes a distinction between flights over two hours and below two hours as short flights can often be substituted through other means of transport and should therefore be avoided where possible.

Under this question, it is important to report the number of flights paid for by your office for both staff and consultants. In addition, when reporting flights that have intermediate stops, consider them as one flight and include the total hours of flying. For example, if you had a travel that consists of a one hour long flight, an intermediate stop and another flight of 6 hours, report it is as "one flight over 2 hours". This should thus not be counted as two separate flights (''one flight under two hours of flight time'' and one ''over two hours of flight time'').

PIIRS Question

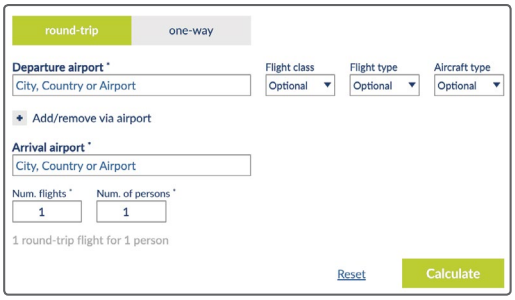
Total amount of GHG emissions (in tCO2-equivalent[3]) from flights that were supported by your office.

This question provides an overview of the total amount of emissions from flights paid for by your office (also for external consultants). You can calculate your office flight emissions yourself with an online tool or ask an external organization to do it for you. The most important thing to keep in mind is to be consistent: so use the same calculation methodology over the years.

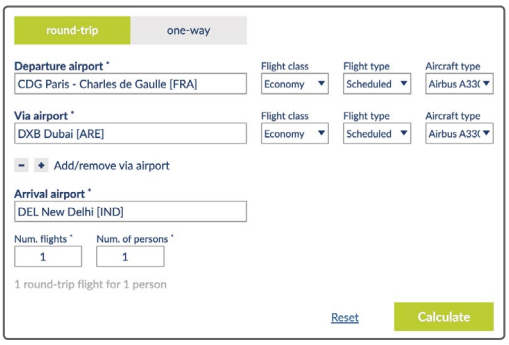
If you choose to do the calculation of emissions yourself, it is recommended to use the online calculator "Atmosfair". This calculator can be found via the following link: https://www.atmosfair.de/en/offset/flight. Atmosfair takes into account intermediate stopovers (which add to your footprint, as landing and take-off use most energy) and non-CO2 factors. Other online calculators do exist but have different ways of calculating emissions and are not always accurate.

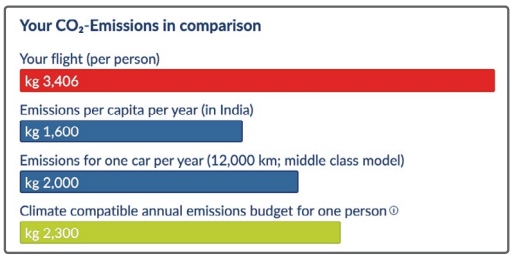
The Atmosfair calculator requires your input for departure and arrival airports. Reporting any stops in between is also required. Your input is also needed for the cabin class (first, business, economy), flight type (scheduled or chartered) and aircraft type. This information can be found in your travel itinerary provided by your travel agency or in your online travel details. Based on this information, Atmosfair will calculate your flight emissions.

When using Atmosfair, this is what you will see:



Below is an example of calculating a trip from Paris to New Delhi, with a stopover in Dubai. This is an economy class trip on a scheduled flight, on an Airbus A330-200:





This round-trip from Paris to New Delhi produces 3,406 CO2e kg emissions.

Notice that Atmosfair's result is in kgCO2 equivalent. To input this data into the PIIRS sheets, it must first be converted into tCO2e. 1 t = 1000 kg. Thus you must divide Atmosfair's result by 1000 in order to get a result in tCO2e. Once converted, this example would result in 3.406 tCO2e.

Recommendation:

CARE staff could be asked - in their travel/ booking form to calculate the teqCO2 emissions for their potential travel, which is a good way to gather the information for this PIIRS question. All staff should use the same calculator for this (CARE recommends to use the online calculator "Atmosfair"). Below is an example of what the travel form could look like.

Detailed travel plan

From (date)	To (date)	Destination (Country/Location)	Type of transport	CO2 Emission[3]
Click here to enter a date.	Click here to enter a date.			
Click here to enter a date.	Click here to enter a date.			
Click here to enter a date.	Click here to enter a date.			
Click here to enter a date.	Click here to enter a date.			

[3] Carbon (C) is commonly but misleadingly used as shorthand for carbon dioxide (CO2). In fact, 1 kg of C = 3.67 kg CO2. The more correct term to use is CO2 equivalent (CO2e), which is the basis used to aggregate the impact of all GHG. Gases other than carbon dioxide are calculated as CO2e based on their global warming potential.

Step 2 Fuel consumption for vehicle use in the FY

What is the impact of vehicle emissions?
The Energy Saving Trust Limited calculated that a journey from London to Edinburgh for one passenger, would generate around 144 kg CO2e by plane, 115 kg CO2e with a diesel car, 120 kg CO2e with a gasoline car and 29kg CO2e by train.

PIIRS Question
Number of (#) litres of a) gasoline b) diesel c) other fuels.

This question allows for the estimation of emissions from vehicle use by your office. Note that only vehicles used for projects purposes, by your staff and consultants, should be considered. This question does not include daily office commuting by your office staff.

There is a direct link between fuel consumption and CO2e emissions. Cars that use more fuel emit more CO2e, and some fuels are more harmful to the environment than others: for example, diesel produces about 2.70 kg CO2eq/litre, gasoline about 2.32 kg CO2eq/litre and ethanol about 1.52 kg CO2eq/litre[4]. Having fuel consumption per type of fuel reported in PIIRS will allow for a calculation of GHG emissions, using corresponding emission factors.

Step 3 Office(s) energy consumption during the FY

Fuels, green energy and GHG emissions
For many organizations, purchased electricity represents one of the largest sources of GHG emissions and the most significant opportunity to reduce these emissions.[5] Natural gas emits significantly less GHG than coal, but more than solar or wind. Natural gas remains an important CO2e emitter that has to be taken into account in your office energy consumption calculation.

PIIRS Question
Electricity in kWh, consumed by your office(s).

The total amount of kWh used by your office during the FY would normally be available in the metered electricity consumption or utility bills specifying consumption in MWh or kWh units.

If your energy provider indicates your energy consumption In MWh, you have to convert it in kWh. To do so, multiply the number in MWh by 1000. MWh x 1,000 = kWh

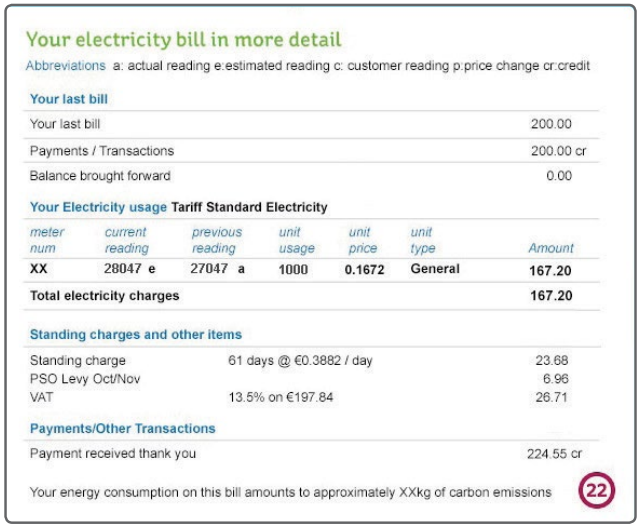
[4] Environmental Protection Agency (2014). Greenhouse Gases Equivalencies Calculator - Calculations and References. Retrieved from https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references
[5] World Resources Institute & World Business Council for Sustainable Development (2004)

PIIRS Question

CO2 intensity in grams of CO2 equivalent per kWh.

The CO2 intensity[6] provides the means through which we can calculate the total amount of CO2e emitted through office energy consumption on the basis of the electricity consumption in kWh.

Energy providers often indicate energy intensity information in electricity bills. In some countries the term 'CO2 emission intensity'' is used and in other countries ''CO2 emission factors''. In both cases it is understood to be GHG emissions (in CO2 equivalence) per activity (either in electricity used, fuel used, or gas used). Below are two examples of electricity bills from Ireland (Electric Ireland) and Australia (Origin Energy):



Your electricity bill in more detail

Abbreviations a: actual reading e:estimated reading c: customer reading p:price change cr:credit

Your last bill

Your last bill	200.00
Payments / Transactions	200.00 cr
Balance brought forward	0.00

Your Electricity usage Tariff Standard Electricity

meter num	current reading	previous reading	unit usage	unit price	unit type	Amount
XX	28047 e	27047 a	1000	0.1672	General	167.20
Total electricity charges						**167.20**

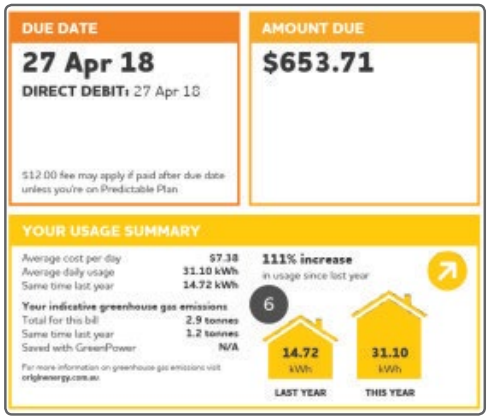
Standing charges and other items

Standing charge	61 days @ €0.3882 / day	23.68
PSO Levy Oct/Nov		6.96
VAT	13.5% on €197.84	26.71

Payments/Other Transactions

Payment received thank you	224.55 cr

Your energy consumption on this bill amounts to approximately XXkg of carbon emissions 22



DUE DATE

27 Apr 18

DIRECT DEBIT: 27 Apr 18

$12.00 fee may apply if paid after due date unless you're on Predictable Plan

AMOUNT DUE

$653.71

YOUR USAGE SUMMARY

Average cost per day $7.18
Average daily usage 31.10 kWh
Same time last year 14.72 kWh

111% increase in usage since last year

Your indicative greenhouse gas emissions
Total for this bill 2.9 tonnes
Same time last year 1.2 tonnes
Saved with GreenPower N/A

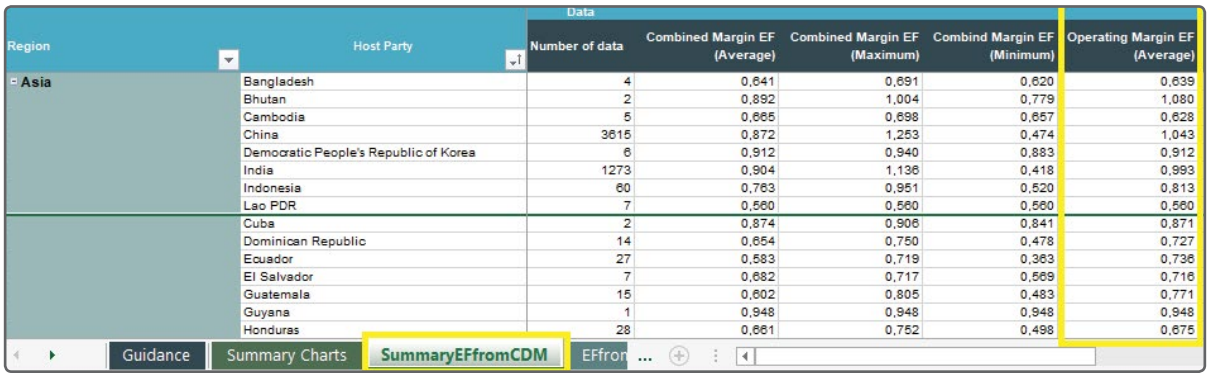
6

14.72 kWh LAST YEAR

31.10 kWh THIS YEAR

Looking at Electric Ireland's sample bill on the left: point 22 is where carbon emissions are listed directly in kg. In the Origin Energy's sample bill on the right: at point 6 is where carbon emissions are listed directly in kg.

If your energy provider cannot give you this information, provide us with the CO2e emission factor indicated in your national energy grid. The following source is recommended: https://pub.iges.or.jp/pub/iges-list-grid-emission-factors. This reliable and regularly updated source contains a lot of information. You may find the value for your country under the third tab "Summary EF from CDM", column **Operating Margin EF (average)**. See example below. You may then insert this value in PIIRS.



Region	Host Party	Data: Number of data	Combined Margin EF (Average)	Combined Margin EF (Maximum)	Combind Margin EF (Minimum)	Operating Margin EF (Average)
Asia	Bangladesh	4	0,641	0,691	0,620	0,639
	Bhutan	2	0,892	1,004	0,779	1,080
	Cambodia	5	0,665	0,698	0,657	0,628
	China	3615	0,872	1,253	0,474	1,043
	Democratic People's Republic of Korea	6	0,912	0,940	0,883	0,912
	India	1273	0,904	1,136	0,418	0,993
	Indonesia	60	0,763	0,951	0,520	0,813
	Lao PDR	7	0,560	0,560	0,560	0,560
	Cuba	2	0,874	0,906	0,841	0,871
	Dominican Republic	14	0,654	0,750	0,478	0,727
	Ecuador	27	0,583	0,719	0,363	0,736
	El Salvador	7	0,682	0,717	0,569	0,716
	Guatemala	15	0,602	0,805	0,483	0,771
	Guyana	1	0,948	0,948	0,948	0,948
	Honduras	28	0,661	0,752	0,498	0,675

Guidance | Summary Charts | SummaryEFfromCDM | EFfron ...

[6] CO2 intensity is Defined by the UNFCCC as ''the average emission rate of a given GHG for a given source, relative to units of activity''.

Unit precision:
Be aware that the unit that you must use when reporting your carbon intensity in PIIRS is gCO2 / kWh. Some sources provide this information in other units (for example, the suggested national grid source gives the information in t/MWh, and some energy providers provide the carbon intensity in Kg/kWh). **If you do not convert in the correct unit, it will create a huge mistake in your data.** It is thus vital to convert it according the following:

If your source provides you your carbon intensity in t/MWh, multiply per 1000 → t/MWh x 1000 = g/kWh

If your source provides you your carbon intensity in Kg/kWh, multiply per 1000 → kg/kWh x 1000 = g/kWh

PIIRS Question
Number of litres of a) gasoline b) diesel c) other fuels consumed by generators.

Generators produce electricity by burning fuel, which creates greenhouse gas emissions. Diesel generators for example, produce carbon dioxide (CO2), nitrogen oxide (NOx), and particulate matter[7]. Every litre of fuel has 0.73 kg of pure carbon, 2.6 kg of carbon dioxide released per litre of diesel fuel, which exacerbates climate change[8]. Therefore, the amount of fuel to power CARE offices generators is recorded in PIIRS.

If there is a generator per the whole facility where your office is, calculate the generator fuel consumption with the following formula:

$$\frac{\text{Office surface } (m^2)}{\text{Total facility surface } (m^2)} \times \text{Total generator fuel consumption of facility (l)} = \text{Generator fuel consumption of office (l)}$$

PIIRS Question
Number of cubic meters of gas consumed.

This question provides an overview of the total amount of cubic meters of gas consumed by your office (for example for heating and cooking). Gas consumption can correspond to different types of gases: natural gas, propane, butane and liquefied petroleum gas (LPG).

Recommendation:
CARE offices can reduce their office energy consumption related emissions by investing in energy efficient technologies and energy conservation. Additionally, emerging green power markets provide opportunities to switch to less GHG intensive sources of electricity. CARE offices can install renewable energy-producing equipment (for example solar panels on the roof) to power an office, particularly if it replaces the purchase of more GHG intensive electricity from the grid.

[7] https://energyeducation.ca/encyclopedia/Diesel_generator
[8] https://www.ncbi.nlm.nih.gov/pubmed/11417675

Step 4 Measures your office has taken to reduce and/or offset emissions in the FY

PIIRS Question
1. Awareness raising among staff about the climate change impact of...

Flight travel	Vehicle use	Office(s) energy consumption

Select "yes" if your office implements measures to create awareness on the impact of their behaviour on the climate. Examples:

- Setting up green teams
- Sensitization training
- Code of conduct
- Environmental reports
- Internal campaigning on the impact of flight emission

Recommendation:
A CARE office could do routine reporting of office emissions on a 6-month or on an annual basis, and share it with staff to raise and keep awareness levels high.

PIIRS Question
2. Application of alternatives/measures to reduce GHG emissions from...

Flight travel	Vehicle use	Office(s) energy consumption
Select "yes" if your office implemented measures that influence air travel behaviour to become less impactful on climate. Examples: • Checklists for staff to consider before deciding to use flights • Stricter travel authorizations • Promote use of trains, buses, boats or vehicles instead of planes • Create virtual spaces for meetings instead of flight travel.	Select "yes" if your office implements measures that influence vehicle travel behaviour to become less impactful on climate. Examples: • Promote public transport • Promote car-sharing • Promote carpooling • Promote bicycle use • Create virtual spaces for meetings instead of vehicle travel.	Select "yes" if your office implements measures that influence office energy consumption behaviour to become less impactful on climate. Examples: • Install more energy-efficient lighting, equipment and motion sensors • Set the office equipment and Heating Ventilation and Air Conditioning system into energy-saving modes or completely shut-down, especially during off-hours • Produce or purchasing renewable energy • Promote paper-less offices and reduce printing of reports and emails

PIIRS Question
3. Application of reduction targets for...

Flight travel	Vehicle use	Office(s) energy consumption

Select "yes" if your office has set long or short term targets to reduce emissions. The reduction target should refer to a baseline year and should strive to reduce emissions in comparison to that year by a certain percentage. For example: reduce GHG emissions by 10 or 20 % in year X. These reductions should be overall or absolute reductions, meaning that the absolute amount (in tCO2eq) should be reduced, independent of increases in staff or in operations.

PIIRS Question

4. Application of a carbon budget for...

Flight travel	Vehicle use	Office(s) energy consumption

Select ''yes'' if your office applies a carbon budget to reduce emissions.

A carbon budget can be office-wide as well as individual-specific (with different carbon budgets depending on an individual's role within the organization). The intention of a carbon budget should be to limit an office's emissions. It should decrease year to year in order to drive more carbon reduction achievements. Staff are then being issued carbon budgets which they can manage at their discretion. The decision of whether or not to undertake a particular trip becomes a trade-off against their future allocation for the year. Management would receive reports of carbon expenditure against budget, analyse variances and ensure that departments stay within budget.

PIIRS Question

5. Offset of emissions through internal funds or external parties, for...

Flight travel	Vehicle use	Office(s) energy consumption

Select ''yes'' if your office compensates for unavoidable emissions. Even though reducing emissions is the best way to limit one's carbon footprint, it is important to take responsibility for the emissions CARE offices produce. Using credible carbon offsets from known projects that have a high social impact and environmental integrity is better than doing nothing at all. Compensating for emissions can either be done through an internal fund or external parties. In both processes, some aspects must be taken into consideration for offsetting your office emissions. Those are described below.

External party:
Make sure your offset provider, be they your airline, your travel agent or independent broker, is offering one of the following:

- 'Gold standard' offsets (www.goldstandard.org), which have strict requirements for sustainability, local participation and proof that the project is truly additional to business-as-usual;
- 'Retiring' offsets (i.e. removing carbon credits from markets where there is a finite supply of permits to pollute, notably the EU) (https://sandbag.org.uk/carbon/, or www.carbonretirement.com''

Your office should also take into account the fact that land-based offsets such as tree-planting might not always be the best option, as they are by their nature temporary (trees die in time, emitting the carbon they have absorbed).

Internal funds:
It has been proposed that CARE sets up an internal project for offsetting. Currently, the CCRP is working on this, and you will receive more information in time through the CCRP quarterly newsletter. This CARE project should be prioritized for offsetting your office emissions once it is in place.

PIIRS Question

6. Other measures

There may be other measures that your offices is implementing in order to reduce its carbon footprint. If that is the case, please describe here any other initiative taken in order to reduce your greenhouse gas emissions.

QUESTIONS?

Contact info@careclimatechange.org

Annex 2: Used hypothesis and reasoning in the validation process

ASSUMPTION / ANALYSIS	REASONING
Minimum CO_2 emissions per flight expected for short flights is 22kgCO_2	Using a highly efficient airplane "Airbus A350-900" emissions from Brussels to Schiphol are 22kgCO_2 emissions. This is a short flight of about 45 min or less. Hence, we can use this value as low boundary for analysis.
Maximum CO_2 emissions per flight expected for short and long flights: 9000kg CO_2 emissions per flight	Emissions comparable to a flight from Sydney to Chicago with stop
Minimum CO_2 emissions per flight expected for long flights (more than 2 hours): 86kg CO_2	Average emission from Amsterdam to Paris (travel time of about 1:20 h) with the highly efficient airplane "Airbus A350-900"
Maximum fuel consumption expected for transport per person is 10.6 liters per day or 2,544.00 litres per year (gasoline equivalent)	Maximum fuel consumption per day: 200 km a day (4 hours 50 km) is 21.2 litres (200*10.6/100). 10.6 litres (21.2/2) is a maximum fuel consumption expected per person, if every person in the office travels everyday, with always two employees in a car. Per year when driving 5 days per week is 2.544 litres (10.6*48*5), 48 days as people have holidays. Further, an average fuel consumption of 10.6 l/100km is used (maximum value given by IEA).
1 liters Diesel is equivalent to 4.37 litres of gasoline	Liters of Diesel are converted to liters of gasoline equivalent for aggregating all fuels used
For road transport, diesel values are converted to gasoline equivalent values and then aggregated with consumption of gasoline and other fuels per office. It is assumed that other fuels have the same efficiency as gasoline.	
The equivalent kWh produced per liter of diesel is calculated. It is assumed that generators used by the offices have a power of 10KW and a consumption of 2.9 liters per hour (based on sources). Same values are used for gasoline generators given the calorific value of gasoline and diesel are similar.	
Electricity consumption per person and year in offices is expected in the range of thousands	The results of reference study give a demand of offices per person of 2500 kWh per year. However, it is very specific to the offices under consideration. Hence, it is assumed that outliers would be values of energy consumption higher than the range of thousands kWh per person
CO_2 intensity of 100% coal sources for electricity is of 1001 g/kWh. Hence, maximum intensity expected is at the order of thousands	CO_2 intensity of electricity was compared with IGES data and also with sources available in figure 7
CO_2 intensity value suggested of electricity for Australia comes from AEMO (Australian Energy Market Operator)	https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/market-operations/settlements-and-payments/settlements/carbon-dioxide-equivalent-intensity-index
Consumption of gas is within the order of thousands	House consumption in Amsterdam is between 1000 and 2500 m3. Hence, it can be expected for offices a gas demand rounding the thousands m3. Particularly for countries where gas is also used for heating
CO_2 emissions factors are extracted from UK guidelines for GHG reporting	
It is assumed that other fuels include natural gas (compressed and liquefied), propane, biodiesel and biopetrol for electric generators and cars. Hence, an average of CO_2 emissions factors of these fuels is calculated	This is based on research of fuels used for generators in the market and for cars

Annex 3: PIIRS data on numbers of office staff

TOTAL STAFF FY19 GLOBAL SOUTH	CARE OFFICE
491	Afghanistan {AFG}
704	Bangladesh {BGD}
64	Benin {BEN}
1	Bolivia {BOL}
13	Bosnia and Herzegovina {BIH}
60	Burundi {BDI}
72	Cambodia {KHM}
44	Cameroon {CMR}
202	Chad {TCD}
134	Congo, Democratic Republic of {COD}
71	Cote d'Ivoire {CIV}
6	Cuba {CUB}
34	Ecuador {ECU}
117	Egypt {EGY}
935	Ethiopia {ETH}
1	Fiji {FJI}
19	Georgia {GEO}
81	Ghana {GHA}
30	Guatemala {GTM}
3	Guinea {GIN}
368	Haiti {HTI}
75	Honduras {HND}
1750	India {IND}
85	Indonesia {IDN}
55	Iraq {IRQ}
147	Jordan {JOR}
178	Kenya {KEN}
26	Kenya {KEN} Regional
8	Kosovo {XKX}
93	Laos {LAO}
54	Lebanon {LBN}
5	Liberia {LBR}
2	Macedonia {MKD}
111	Madagascar {MDG}
155	Malawi {MWI}
192	Mali {MLI}
35	Morocco {MAR}
105	Mozambique {MOZ}
215	Myanmar {MMR}
195	Nepal {NPL}
211	Niger {NER}
136	Nigeria {NGA}
51	Pakistan {PAK}
148	Papua New Guinea {PNG}
108	Peru {PER}
39	Philippines {PHL}
33	Rwanda {RWA}
9	Serbia {SRB}
81	Sierra Leone {SLE}
303	Somalia {SOM}
347	South Sudan {SSD}
44	Sri Lanka {LKA}
150	Sudan {SDN}
192	Syria {SYR} (including Central Hub, North Hub, South Hub)
91	Tanzania {TZA}
289	Thailand {THA}
182	Timor-Leste {TLS}
4	Togo {TGO}
130	Turkey {TUR}
114	Uganda {UGA}
48	Vanuatu {VUT}
38	Vietnam {VNM}
28	West Bank and Gaza {PSE}
308	Yemen {YEM}
65	Zambia {ZMB}
178	Zimbabwe {ZWE}
10263	

TOTAL STAFF FY19 GLOBAL NORTH	CARE OFFICE
63	Australia {AUS}
37	Austria {AUT}
2	Belgium {BEL}
100	Canada {CAN}
7	Czech Republic {CZE}
38	Denmark {DNK}
47	France {FRA}
85	Germany {DEU}
11	Japan {JPN}
4	Luxembourg {LUX}
58	Netherlands {NLD}
59	Norway {NOR}
42	Switzerland {CHE}
115	United Kingdom {GBR}
576	United States of America {USA}
1244	

Annex 4: Formula flight hours per office X 0.1522 tons CO_2-eq

10 CARE offices did submit data on their total number of flight hours but not on their total CO_2 emissions: Bosnia and Herzegovina, Ecuador, Guinea, Indonesia, Liberia, Niger, Pakistan, Rwanda, Sudan, USA. Unfortunately, there is no consensus on a formula to calculate the average CO_2-eq per flight hour.[40] The reason for this is that there are many factors other than distance and time of a flight that must be taken into account; for example, flight altitude, aircraft type, airport conditions, meteorological conditions, number of seats on board and their occupation, etc. play a role in the calculation of emissions of CO_2.[41]

Due to this lack of consensus on the average CO_2-eq per flight hour, CCRP decided to generate a formula based on the calculator Atmosfair and Flight Durations. 25 flights were selected that are common within the CARE confederation. By dividing the CO_2-eq emissions from these 25 flights by their total number of hours of flights, CCRP arrived at its formula to estimate CO_2-eq emissions from flights for the ten offices that only reported their flight hours : total flight hours per office x 0.1522 tons CO_2-eq. These results are represented in the graphs as "estimated based on reported flight hours".

Below you find the 25 selected flights,[42] whether they are short- or long-haul flights, CO_2 emissions in kg (calculated by Atmosfair), CO_2-eq tons emissions, flight hours (calculated by flightdurations.com) and their average CO_2-eq per flight hour. Below you see that the average of these 25 flights in tons CO_2-eq per flight hours is 0.1522.

CITIES	SHORT OR LONG-HAUL FLIGHTS	KG CO_2-EQ EMISSIONS	TONS CO_2-EQ EMISSIONS	FLIGHT HOURS	TONS CO_2-EQ/ HOUR
London-Bonn	Short	135	0.135	1.4	0.098
Canberra-Melbourne	short	120	0.120	1.2	0.1
Melbourne-Sydney	short	187	0.187	1.8	0.102
bangkok-chiang mai	short	151	0.151	1.5	0.103
London-Geneva	short	176	0.176	1.7	0.107
Atlanta - Washington	short	202	0.202	1.8	0.114
Atlanta-New York	long	264	0.264	2.3	0.117
Lima-Quito	long	291	0.291	2.3	0.126
Nairobi-Khartoum	long	546	0.546	4.1	0.133
Atlanta-Quito	long	796	0.796	5.9	0.134
Canberra-Port Vila	long	1247	1.247	9.0	0.138
Addis-Nairobi	short	307	0.307	2.2	0.138
Dhaka-Cox Bazar	short	113	0.113	0.8	0.141
Quito-Guatemala City	long	962	0.962	6.8	0.142
Bangkok - Jakarta	long	532	0.532	3.6	0.148
Ottawa-Ndjamena	long	2726	2.726	17.0	0.161
Atlanta-Amman	long	2307	2.307	13.3	0.174
Geneva-Nairobi	long	1662	1.662	9.0	0.185
Amsterdam-Addis	long	1449	1.449	7.7	0.189
Atlanta-Delhi	long	3184	3.184	16.7	0.191
Atlanta-Nairobi	long	3126	3.126	16.2	0.193
Atlanta-Lilongwe	long	4346	4.346	20.2	0.215
Ottawa-Lusaka	long	4635	4.635	21.4	0.217
Paris-Abidjan	long	1296	1.296	6.0	0.217
Paris-Yaoundé	long	1369	1.369	6.2	0.22
AVERAGE					0.1522

40 The following other formulas were found on the internet (https://www.carbonindependent.org/22.html):
Carbon independent: 0.250 tons CO_2 equivalent per hour flying
The UK Department for Transport journey planner assumes 0.158 kg CO_2 / km [16, giving UK DfT as the source], which is equivalent to 134 kg CO_2 per hour for a plane flying at 850 km per hour (this excludes 'radiative forcing')
The National Energy Foundation [2] gives 0.29 kg CO_2 / mile, which is equivalent to 150 kg CO_2 per hour for a plane flying at 850 km per hour
The Quaker Green Action calculator [1] assumes 350 kg CO_2 equivalent per hour flying (using a multiplier of 3 [personal communication]). (
41 (https://www.atmosfair.de/en/standards/emissions_calculation/emissions_calculator/)
42 The flights in blue have layovers/stopovers.

Annex 5: Information on CARE's global emissions

	FLIGHTS	FUEL CONSUMPTION FOR VEHICLE USE	OFFICE ENERGY CONSUMPTION
Worldwide	5719.2	7175.3	4067.3
%	34%	42%	24%

Reported emissions from flights, fuel consumption and office energy consumption (figure 1)

	FLIGHTS	FUEL CONSUMPTION FOR VEHICLE USE	OFFICE ENERGY CONSUMPTION	TOTAL	% OF TOTAL
Global North	2436		987	3423.1	20.2%
Global South	3284	7175	3080	13538.7	79.8%
Worldwide	5719	7175	4067	16961.8	100%

Reported emissions in the Global North, the Global South and Worldwide (figure 2)

	FLIGHTS (REPORTED & ESTIMATED)	FUEL CONSUMPTION FOR VEHICLE USE (REPORTED & ESTIMATED)	OFFICE ENERGY CONSUMPTION (REPORTED & ESTIMATED)	TOTAL
WorldWide	13516.3	9935.3	5255.3	28706.9
%	47%	35%	18%	100%

Reported and estimated emissions from flights, fuel consumption and office energy consumption (figure 3)

	REPORTED	ESTIMATED BASED ON REPORTED FLIGHT HOURS	ESTIMATED BASED ON STAFF NUMBER	TOTAL	%
Flights	5719.2	6366.2	1430.9	13516	47.1%
Fuel Consumption	7175.3		2760.0	9935	34.6%
Office Energy Consumption	4067.3		1188.0	5255	18.3%
Total CO_2 emissions				28707	100%

Reported and estimated emissions from flights, fuel consumption and office energy consumption differentiating between reported emissions, estimated emissions based on reported flight hours and emissions based on staff number (figure 4)

	FLIGHTS (REPORTED & ESTIMATED)	FUEL CONSUMPTION FOR VEHICLE USE (REPORTED & ESTIMATED)	OFFICE ENERGY CONSUMPTION (REPORTED & ESTIMATED)	TOTAL	% OF WORLDWIDE
Global North	8174.5		1121.8	9296.3	32.4%
Global South	5341.8	9935.3	4133.5	19410.6	67.6%
Worldwide	13516.3	9935.3	5255.3	28706.9	100%

Reported and estimated emissions in the Global North, the Global South and Worldwide (figure 5)

Carbon Footprint calculations

CCRP calculated the carbon footprint for the Global North, the Global South and World wide for 1) the reported data and 2) the reported and estimated data by taking the following steps:

a) CCRP estimated the footprint per category (flights, vehicle use and office energy) for Global North, Global South and Worldwide by dividing the CO_2 emissions of that category by the number of staff.

b) Add the numbers of the categories (flights, vehicle use and office energy) for Global North, Global South and Worldwide

1) Carbon Footprint for reported data

a) The average footprints per category (flights, vehicle use and office energy) are:[43]

	CO_2 EMISSIONS FLIGHTS	STAFF	AVERAGE STAFF FOOTPRINT IN TONS CO_2-EQ IN FLIGHTS
Global North	2435.7	666	3.657
Global South	3283.5	6751	0.486
Worldwide	5719.2	7417	0.771
	CO_2 EMISSIONS FUEL CONSUMPTION FOR VEHICLE USE	STAFF	AVERAGE STAFF FOOTPRINT IN TONS CO_2-EQ VEHICLE USE
Global North	0	1242	0
Global South	7175.3	7412	0.968
Worldwide	7175.3	8654	0.829
	CO_2 EMISSIONS OFFICE ENERGY SUPPLY	STAFF	AVERAGE STAFF FOOTPRINT IN TONS CO_2-EQ OFFICE ENERGY SUPPLY
Global North	987.4	1095	0.902
Global South	3079.9	7647	0.403
Worldwide	4067.3	8742	0.465

b) The average footprint of Global North, Global South and Worldwide are:

Global North: 3.657+0+0.902= **4.56**

Global South: 0.486+0.968+0.403= **1.86**

Worldwide: 0.771+0.829+0.465= **2.07**

43 Please note, that we have used the staff number reported per country here. As the number of offices that reported changed per category (flights vehicle use and office energy), the staff number used to calculate the footprint for the average footprint also changed.

2) Carbon Footprint for reported and estimated data

a) The average footprints per category (flights, vehicle use and office energy) are:

	CO_2 EMISSIONS FLIGHTS	STAFF	AVERAGE STAFF FOOTPRINT IN TONS CO_2-EQ IN FLIGHTS
Global North	8174.50	1244	6.571
Global South	5341.79	10263	0.520
Worldwide	13516.29	11507	1.175
	CO_2 EMISSIONS FUEL CONSUMPTION FOR VEHICLE USE	STAFF	AVERAGE STAFF FOOTPRINT IN TONS CO_2-EQ VEHICLE USE
Global North	0	1244	0
Global South	9935.29	10263	0.968
Worldwide	9935.29	11507	0.863
	CO_2 EMISSIONS OFFICE ENERGY SUPPLY	STAFF	AVERAGE STAFF FOOTPRINT IN TONS CO_2-EQ OFFICE ENERGY SUPPLY
Global North	1121.76	1244	0.902
Global South	4133.52	10263	0.403
Worldwide	5255.28	11507	0.457

b) The average footprint of Global North, Global South and Worldwide are:

Global North: 6.571+0+0.902= **7.47**

Global South: 0.520+0.968+0.403= **1.89**

Worldwide: 1.175+0.863+0.457= **2.49**

Annex 6: Information on numbers of short- and long-haul flights, flight hours and emissions from flights

	LONG-HAUL FLIGHTS	SHORT-HAUL FLIGHTS	TOTAL	% LONG-HAUL FLIGHTS	% SHORT-HAUL FLIGHTS
Global North	7533	3454	10987	68.6%	31.4%
Global South	4805	8452	13257	36.2%	63.8%
Worldwide	12338	11906	24244	50.9%	49.1%

Long- and Short-haul flights of Global North & Global South (figure 6)

CARE OFFICE	LONG-HAUL FLIGHTS (OVER 2 HOURS)	SHORT-HAUL FLIGHTS (UNDER 2 HOURS)
United States of America	5418	2108
Canada	926	341
Australia	93	608
Switzerland	263	191
United Kingdom	314	30
Austria	126	65
Denmark	130	35
Netherlands	140	14
Germany	89	46
Japan	20	12
Czech Republic	6	4
Luxembourg	8	0
Total	7533	3454

Absolute number of long-haul and short-haul flights per reporting office for the Global North (figure 7)

CARE OFFICE	LONG-HAUL FLIGHTS (OVER 2 HOURS)	SHORT-HAUL FLIGHTS (UNDER 2 HOURS)	STAFF NUMBER	LONG-HAUL FLIGHTS PER CAPITA (OVER 2 HOURS)	SHORT-HAUL FLIGHTS PER CAPITA (UNDER 2 HOURS)
Australia	93	608	63	1.48	9.65
Austria	126	65	37	3.41	1.76
Canada	926	341	100	9.26	3.41
Czech Republic	6	4	7	0.86	0.57
Denmark	130	35	38	3.42	0.92
Germany	89	46	85	1.05	0.54
Japan	20	12	11	1.82	1.09
Luxembourg	8	0	4	2.00	0.00
Netherlands	140	14	58	2.41	0.24
Switzerland	263	191	42	6.26	4.55
United Kingdom	314	30	115	2.73	0.26
United States of America	5418	2108	576	9.41	3.66

Number of long-haul and short-haul flights per capita per reporting office for the Global North (figure 8)

CARE OFFICE	TOTAL FLIGHT HOURS	TOTAL STAFF	NUMBER OF FLIGHT HOURS PER CAPITA
United States of America	37667	576	65.4
Canada	5386	100	53.9
Switzerland	1906	42	45.4
Netherlands	2464	58	42.5
Luxembourg	165	4	41.3
Australia	2070	63	32.9
Denmark	835	38	22.0
Austria	801	37	21.6
Japan	178	11	16.2
Germany	1228	85	14.4
Czech Republic	35	7	5.0

Number of flight hours per capita per reporting office for the Global North (figure 9)

CARE OFFICE	LONG-HAUL FLIGHTS (OVER 2 HOURS)	SHORT-HAUL FLIGHTS (UNDER 2 HOURS)
India	1685	1894
Bangladesh	122	1725
Thailand	56	1292
South Sudan	278	632
Ethiopia	555	282
Peru	536	71
Nepal	74	480
Indonesia	354	154
Sudan	50	220
Yemen	134	131
Niger	50	200
Madagascar	34	188
Ecuador	40	160
Tanzania	40	151
Laos	4	179
Kenya, Regional office	98	66
Cote d'Ivoire	36	120
Kenya	43	77
Ghana	35	75
Benin	50	46
Timor-Leste	36	55
Mali	84	0
Sierra Leone	60	5
Malawi	46	18
Haiti	23	33
Rwanda	23	33
Congo, Democratic Republic of	45	9
Pakistan	24	28
Sri Lanka	50	0
Iraq	40	9
Nigeria	41	0
Guatemala	28	12
Bosnia and Herzegovina		38
Cambodia	6	21

Guinea	4	16
Kosovo	1	14
Zimbabwe	10	1
Jordan	6	3
Morocco	0	7
Serbia	3	4
Liberia		3
Macedonia	1	0

Absolute number of long-haul and short-haul flights per reporting office for the Global South (figure 10)

CARE OFFICE	LONG-HAUL FLIGHTS (OVER 2 HOURS)	SHORT-HAUL FLIGHTS (UNDER 2 HOURS)	TOTAL STAFF	LONG-HAUL FLIGHTS PER CAPITA (OVER 2HOURS)	SHORT-HAUL FLIGHTS PER CAPITA (UNDER 2 HOURS)
Bangladesh	122	1725	704	0.17	2.45
Benin	50	46	64	0.78	0.72
Bosnia and Herzegovina		38	13	0.00	2.92
Cambodia	6	21	72	0.08	0.29
Congo, Democratic Republic of	45	9	134	0.34	0.07
Cote d'Ivoire	36	120	71	0.51	1.69
Ecuador	40	160	34	1.18	4.71
Ethiopia	555	282	935	0.59	0.30
Ghana	35	75	81	0.43	0.93
Guatemala	28	12	30	0.93	0.40
Guinea	4	16	3	1.33	5.33
Haiti	23	33	368	0.06	0.09
India	1685	1894	1750	0.96	1.08
Indonesia	354	154	85	4.16	1.81
Iraq	40	9	55	0.73	0.16
Jordan	6	3	147	0.04	0.02
Kenya	43	77	178	0.24	0.43
Kosovo	1	14	8	0.13	1.75
Laos	4	179	93	0.04	1.92
Liberia		3	5	0.00	0.60
Macedonia	1	0	2	0.50	0.00
Madagascar	34	188	111	0.31	1.69
Malawi	46	18	155	0.30	0.12
Mali	84	0	192	0.44	0.00
Morocco	0	7	35	0.00	0.20
Nepal	74	480	195	0.38	2.46
Niger	50	200	211	0.24	0.95
Nigeria	41	0	136	0.30	0.00
Pakistan	24	28	51	0.47	0.55
Peru	536	71	108	4.96	0.66
Rwanda	23	33	33	0.70	1.00
Serbia	3	4	9	0.33	0.44
Sierra Leone	60	5	81	0.74	0.06
South Sudan	278	632	347	0.80	1.82
Sri Lanka	50	0	44	1.14	0.00
Sudan	50	220	150	0.33	1.47

Tanzania	40	151	91	0.44	1.66
Thailand	56	1292	289	0.19	4.47
Timor-Leste	36	55	182	0.20	0.30
Yemen	134	131	308	0.44	0.43
Zimbabwe	10	1	178	0.06	0.01
Kenya, Regional office	98	66	26	3.77	2.54

Number of long-haul and short-haul flights per capita per reporting office for the Global South (figure 11)

CARE OFFICE	TOTAL FLIGHT HOURS	TOTAL STAFF	NUMBER OF FLIGHT HOURS PER CAPITA
Kenya, Regional office	505	26	19.42
Indonesia	1532	85	18.02
Peru	1661	108	15.38
Guinea	38	3	12.67
Cote d'Ivoire	888	71	12.51
Sri Lanka	468,54	44	10.65
Sudan	1440	150	9.60
Thailand	2571	289	8.90
Ecuador	276	34	8.12
Rwanda	200	33	6.06
Sierra Leone	458	81	5.65
Benin	325	64	5.08
India	8739	1750	4.99
Pakistan	246	51	4.82
Guatemala	137	30	4.57
Madagascar	498	111	4.49
Nepal	844	195	4.33
Iraq	235	55	4.27
Tanzania	353	91	3.88
Kosovo	28	8	3.50
Bangladesh	2165	704	3.08
Laos	281	93	3.02
Malawi	403	155	2.60
Bosnia and Herzegovina	33	13	2.54
Serbia	21	9	2.33
Ethiopia	2110	935	2.26
Yemen	673	308	2.19
Congo, Democratic Republic of	273	134	2.04
Niger	400	211	1.90
Timor-Leste	255	182	1.40
Mali	267	192	1.39
Liberia	6	5	1.20
Cambodia	74	72	1.03
Macedonia	2	2	1.00
Kenya	154	178	0.87
Haiti	207	368	0.56
Zimbabwe	65	178	0.37
Nigeria	41	136	0.30
Jordan	33	147	0.22
Morocco	7	35	0.20

Number of flight hours per capita per reporting office for the Global North (figure 12)

	FLIGHTS (REPORTED)	FLIGHTS (ESTIMATED BASED ON REPORTED FLIGHT HOURS)	FLIGHTS (ESTIMATED BASED ON STAFF NUMBER)	TOTAL	% OF WORLDWIDE
Global North	2435.7	5731.5	7.3	8174.5	60.5%
Global South	3283.5	634.7	1423.6	5341.8	39.5%
Worldwide	5719.2	6366.2	1430.9	13516.3	

Reported and estimated emissions from flights by offices in the Global North the Global South and worldwide (figure 13)

Annex 7: Information on emissions from fuel consumption for vehicle use

CARE OFFICE	DIESEL	GAS	OTHER FUEL
Ethiopia	1095.2	37.8	
Yemen		901.6	
India	806.9		
Zimbabwe	535.5	29.6	
Sudan	402.3	16.0	
Malawi	346.2	65.4	
Bangladesh	99.6	283.3	
Haiti	285.7	10.3	
Sierra Leone	156.2	80.0	
Tanzania	204.5	0.7	
Thailand	184.0	14.6	
Kenya	150.3	14.6	
Mali	162.4	0.9	
South Sudan	141.2	18.6	
Jordan	158.8		
Cote d'Ivoire	131.2	4.5	
Benin	90.4	1.0	
Nepal	78.4	1.0	
Sri Lanka	73.1	1.4	
Cambodia	69.4		
Congo, Democratic Republic of	63.4	3.8	
Timor-Leste	60.1	4.1	0.4
Guatemala	44.3	8.3	
Rwanda	49.4		
Laos	40.9	4.5	
Peru	34.1	4.1	
Ecuador	30.1	7.5	
Morocco	29.0		
Iraq		28.8	
Pakistan	6.5	18.6	
Ghana	18.9	1.8	
Indonesia	12.2	3.6	
Bosnia and Herzegovina		14.1	
Nigeria		10.3	0.048
Serbia	6.0	4.1	
Kosovo	1.9	6.2	
Macedonia	3.7		
Togo	1.6		

Absolute amounts of emissions from the reported consumption of a variety of fuels for vehicle use by offices in the Global South (figure 14)

CARE OFFICE	DIESEL PER CAPITA	GAS PER CAPITA	OTHER FUEL PER CAPITA
Zimbabwe	3.01	0.17	
Yemen		2.93	
Sierra Leone	1.93	0.99	
Sudan	2.68	0.11	
Malawi	2.23	0.42	
Tanzania	2.25	0.01	
Cote d'Ivoire	1.85	0.06	
Macedonia	1.87		
Guatemala	1.48	0.28	
Sri Lanka	1.66	0.03	
Rwanda	1.50		
Benin	1.41	0.02	
Ethiopia	1.17	0.04	
Serbia	0.67	0.45	
Ecuador	0.88	0.22	
Bosnia and Herzegovina		1.09	
Jordan	1.08		
Kosovo	0.23	0.78	
Cambodia	0.96		
Kenya	0.84	0.08	
Mali	0.85	0.005	
Morocco	0.83		
Haiti	0.78	0.03	
Thailand	0.64	0.05	
Bangladesh	0.14	0.40	
Iraq		0.52	
Congo, Democratic Republic of	0.47	0.03	
Pakistan	0.13	0.36	
Laos	0.44	0.05	
India	0.46		
South Sudan	0.41	0.05	
Nepal	0.40	0.005	
Togo	0.40		
Timor-Leste	0.33	0.02	0.00196
Peru	0.32	0.04	
Ghana	0.23	0.02	
Indonesia	0.14	0.04	
Nigeria		0.08	0.00035

Reported emissions from vehicle use per capita (figure 15)

	FUEL CONSUMPTION FOR VEHICLE USE [TONS CO_2-EQ]	
Reported	7175.3	72.2%
Estimated	2760.0	27.8%
Total	9935.3	100%

Reported and estimated emissions from fuel consumption for vehicle use by offices in the Global South (figure 16)

Annex 8: Information on emissions from office energy consumption

CARE OFFICE	OFFICE ENERGY CONSUMPTION [TONS CO_2-EQ]
United States of America	784.9
Canada	98.4
United Kingdom	29.0
Australia	25.5
Denmark	16.8
Germany	16.1
Austria	9.5
Japan	4.6
Czech Republic	1.7
Luxembourg	0.91

Emissions in tons CO_2-eq from office energy consumption by reporting offices in the Global North (figure 17)

CARE OFFICE	CO_2 EMISSIONS: OFFICE ENERGY CONSUMPTION [TONS CO_2-EQ]	TOTAL STAFF	CO_2 EMISSIONS FROM OFFICE ENERGY CONSUMPTION [TONS CO_2 -EQ] PER CAPITA - GLOBAL NORTH
United States of America	784,87	576	1.363
Canada	98,41	100	0.984
Global North	1119,95	1242	0.902
Denmark	16,78	38	0.442
Japan	4,58	11	0.416
Australia	25,51	63	0.405
Austria	9,53	37	0.258
United Kingdom	29,00	115	0.252
Czech Republic	1,66	7	0.237
Luxembourg	0,91	4	0.228
Germany	16,15	85	0.190

Emissions in tons CO_2-eq per capita from office energy consumption by reporting offices in the Global North (figure 18)

CARE OFFICE	EMISSIONS OFFICE ENERGY CONSUMPTION
India	462.9
Niger	409.0
Malawi	326.2
Bangladesh	302.9
Jordan	261.5
Yemen	139.4
Haiti	138.7
Thailand	129.2
Mali	122.0
Cambodia	78.0
Rwanda	62.1
Zimbabwe	54.2
Iraq	53.8
Indonesia	52.3
Tanzania	48.7
Laos	42.2

Sierra Leone	41.3
Peru	34.2
South Sudan	34.0
Ethiopia	31.0
Benin	30.7
Pakistan	27.1
Ghana	24.7
Kenya	23.2
Congo, Democratic Republic of	22.4
Sudan	18.0
Bosnia and Herzegovina	16.3
Nigeria	15.9
Serbia	15.8
Sri Lanka	14.6
Timor-Leste	12.0
Guatemala	10.6
Kosovo	9.7
Cote d'Ivoire	7.5
Kenya, Regional office	4.3
Nepal	1.6
Morocco	1.3
Ecuador	0.65
Togo	0.02

Emissions in tons CO_2-eq from office energy consumption by reporting offices in the Global South (figure 19)

CARE OFFICE	EMISSIONS OF OFFICE ENERGY CONSUMPTION	STAFF NUMBER	EMISSIONS OF OFFICE ENERGY CONSUMPTION PER CAPITA
Malawi	326.2	155	2.10
Niger	409.0	211	1.94
Rwanda	62.1	33	1.88
Jordan	261.5	147	1.78
Serbia	15.8	9	1.76
Bosnia and Herzegovina	16.3	13	1.25
Kosovo	9.7	8	1.21
Cambodia	78.0	72	1.08
Iraq	53.8	55	0.98
Mali	122.0	192	0.64
Indonesia	52.3	85	0.62
Tanzania	48.7	91	0.54
Pakistan	27.1	51	0.53
Sierra Leone	41.3	81	0.51
Benin	30.69	64	0.48
Laos	42.2	93	0.45
Yemen	139.4	308	0.45
Thailand	129.2	289	0.45
Bangladesh	302.95	704	0.43
Haiti	138.7	368	0.38
Guatemala	10.64	30	0.35
Sri Lanka	14.6	44	0.33

Peru	34.2	108	0.32
Ghana	24.7	81	0.30
Zimbabwe	54.2	178	0.30
India	462.9	1750	0.26
Congo, Democratic Republic of	22.4	134	0.17
Kenya, Regional office	4.3	26	0.17
Kenya	23.2	178	0.13
Sudan	18.0	150	0.12
Nigeria	15.9	136	0.12
Cote d'Ivoire	7.5	71	0.11
South Sudan	34.0	347	0.10
Timor-Leste	12.0	182	0.07
Morocco	1.26	35	0.04
Ethiopia	31.0	935	0.03
Ecuador	0.7	34	0.019
Nepal	1.6	195	0.0081
Togo	0.0	4	0.0056

Emissions in tons CO_2-eq per capita from office energy consumption by reporting offices in the Global South (figure 20)

CARE OFFICE	ELECTRICITY	GAS	FUELS FOR ELECTRICITY
Zimbabwe			54.2
Yemen	83.4	3.6	52.4
Togo	0.02		
Timor-Leste	5.4	0.00005	6.6
Thailand	129.2		
Tanzania	37.2		11.5
Sudan	4.2	0.4	13.5
Sri Lanka	11.6	3.0	
South Sudan			34.0
Sierra Leone	5.1	6.7	29.6
Serbia	15.8		
Rwanda	58.2	3.3	0.6
Peru	34.2		
Pakistan	23.3	2.8	1.0
Nigeria			15.9
Niger	34.7	1.8	372.5
Nepal	0.2	0.1	1.3
Morocco	1.3		
Mali	96.7		25.3
Malawi	312.0		14.2
Laos	42.2		
Kosovo	9.7		
Kenya, Regional Office	3.2		1.1
Kenya	10.8	1.1	11.3
Jordan	130.9		130.6
Iraq	6.2	1.5	46.1
Indonesia	52.3		
India	447.4	0.002	15.5
Haiti	70.4	0.002	68.3

Guatemala	10.6		
Ghana	14.2		10.5
Ethiopia	1.6		29.4
Ecuador	0.7		
Cote d'Ivoire	7.1		0.3
Congo, Democratic Republic of			22.4
Cambodia	78.0		
Bosnia and Herzegovina	4.9	11.4	
Benin	28.7		1.9
Bangladesh	284.8		18.2

Emissions from different sources of energy by reporting offices from the Global South (figure 21)

	GLOBAL NORTH	GLOBAL SOUTH	WORLDWIDE
Reported	987.4	3079.9	4067.3
Estimated	134.4	1053.6	1188.0
Total	1121.8	4133.5	5255.3

Reported and estimated emissions from office energy consumption by offices in the Global North, the Global South and Worldwide (figure 22)

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