

UNOPS Environmental Inventory Management Plan 2021

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This document is produced thanks to the collective input of UNOPS personnel, especially Health, Safety, Social and Environmental (HSSE) management focal points for environmental reporting.

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1. Introduction

As part of the Strategy for Sustainability Management in the UN System 2020–2030, UNOPS is required to complete an Environmental Inventory and a related Inventory Management Plan (IMP) once a year. The inventory results and IMP also feed into UNOPS Annual Report to the Executive Board, Sustainability Report and Content Index based on the Global Reporting Initiative (GRI) framework. This IMP serves the purpose of enabling UNOPS to better understand and keep track of its environmental footprint, activity data and internal assets. The IMP is an internal document that records the details of each inventory and helps to institutionalize a process for preparing a high-quality inventory. The IMP is filed together with the Inventory each year.

Two sets of IMPs, with different levels of detail, are being prepared:

- an agency-wide IMP developed by UNOPS, which contains information on the agency-specific activity data, sources, policies facilities and equipment; and
- a UN-wide IMP developed by UN Environment Programme (UNEP) / Sustainable UN (SUN), which details the commonly followed principles and data at the UN level. The UN-wide IMP will provide part of the information for the agency-wide IMP. To avoid repetition and enhance clarity, there is referencing between these two IMPs.

The UN Environmental Inventory follows a common minimum boundary and greenhouse gas (GHG) emissions accounting principles mostly prescribed by the World Resources Institute / World Business Council for Sustainable Development GHG Protocol, but at the same time allows participating UN entities flexibility within these limits.

2. IMP 2021

2.1 Version information

Description	Details
Reporting period	2021
Version number of IMP	v2 (07/11/2022)
Corresponding inventory version number	v2
Date IMP completed	07/11/2022

In November 2022, a random quality check performed by UNOPS and UNEP/SUN revealed a discrepancy between the GHG emissions calculated by UNEP and those communicated by UNOPS in its reports.

Correcting a number of errors on both sides led to an update on the inventory results and the release of a v2 of this IMP. The IMP v1 is available [at this link](#).

2.2 Boundary conditions

2.2.1 Organizational boundary

UNOPS applies the principle of operational control to define the boundaries of its inventory. UNOPS adheres to the UN-wide boundary for environmental reporting, with the following exception:

- small offices with fewer than five UNOPS supervised personnel¹ are not included in UNOPS reporting boundary.

It is not currently possible to account for offices with fewer than five personnel using assumptions with high sensitivity and/or proxies.

2.2.2 List of GHGs being accounted for under the UN Environmental Inventory

See UN-wide IMP

2.2.3. List of organization-wide facilities included in this Inventory

The list of facilities² falling within the reporting boundary (more than five UNOPS supervised personnel) has been derived from human resources (HR) records of personnel as of 31 December 2021, excluding personnel whose duty station is defined as “home-based” in their contract.

The list has been further refined with the assistance of Regional Health, Safety, Social and Environmental (HSSE) Coordinators. Offices open, close and fluctuate frequently, so too does the number of personnel. Local focal points have been asked to provide an office occupancy figure that presents the best approximation to reality: either a yearly average, or a snapshot as of 31 December 2021. The figure provided by local focal points is the official total personnel figure appearing in the UNOPS Environmental Inventory report.

UNOPS headquarters (HQ)

Name of office	City	Other offices jointly reporting	Remarks
UNOPS headquarters (HQ), Denmark	Copenhagen	Africa Regional Office based in UNOPS HQ Copenhagen	HQ report also contains entitlement travel for the whole organization – not yet possible to disaggregate
Finland	Helsinki		

Africa Region (AFR)

Name of office	City	Other offices jointly reporting	Remarks
Denmark	Copenhagen		Included in HQ inventory
Benin	Cotonou		
Cameroon	Yaounde		No air travel in 2021
Central African Republic	Bangui	Kaga Bandoro	
Democratic Republic of Congo	Kinshasa	Bukavu, Goma, Kalemie	

¹ For the purpose of this document and of the Environmental Inventory, all individuals performing continuous work within UNOPS premises are considered personnel, as contract modalities are irrelevant when considering environmental footprint. Therefore, personnel include staff members, consultants, JPOs, interns, volunteers, etc.

² For the reason explained below, changes in the number and location of reporting offices occur from year to year.

Djibouti	Djibouti City		No air travel in 2021
Ethiopia	Addis Ababa		
Gambia	Banjul		
Ghana	Accra		
Guinea	Conakry		
Guinea-Bissau	Bissau		
Kenya	Nairobi		
Mozambique	Pemba		
Niger	Niamey		
Senegal	Dakar		
Sierra Leone	Freetown		
Somalia	Mogadishu		
South Sudan	Juba	Bar Urud, Kapoeta East, Kuajok, Pibor, Tonj South	
Sudan	Khartoum	El Fasher	Data gap
Tunisia	Tunis		
Zimbabwe	Harare	Chimanimani, Chipinge	

Asia Region (AR)

Name of office	City	Other offices jointly reporting	Remarks
Thailand	Bangkok		
Afghanistan	Kabul	Kabul MOTVIP, Kabul KSIP, Kabul AFOC, Mazar-I-Sharif RAIP IV	
Bangladesh	Dhaka		
Cambodia	Phnom Penh		No air travel in 2021
Indonesia	Jakarta		
Laos	Vientiane		No air travel in 2021
Myanmar	Yangon	Mandalay, Monywa, Nay Pyi Taw	
Nepal	Kathmandu	Dhanusa, Butwal, Surkhet	
Pakistan	Islamabad		
Philippines	Manila		
Sri Lanka	Colombo	Matara	

Europe and Central Asia Region (ECR)

Name of office	City	Other offices jointly reporting	Remarks
Switzerland	Geneva		
Albania	Tirana		
Belgium	Brussels		
Georgia	Tbilisi		
Kosovo	Pristina		
North Macedonia	Skopje		
Serbia	Belgrade	Nis, Novi Pazar	
Ukraine	Kiev		
Ukraine	Kiev		

Latin America and Caribbean Region (LCR)

Name of office	City	Other offices jointly reporting	Remarks
Panama	Panama City		
Argentina	Buenos Aires		
Brazil	Brasilia		
Costa Rica	San Jose		
El Salvador	San Salvador		
Guatemala	Guatemala City		
Haiti	Port-au-Prince	Gonaives, Hinche, Les Cayes, Port Salut	
Honduras	Tegucigalpa		
Mexico	Mexico City		
Nicaragua	Managua		
Paraguay	Asuncion		
Peru	Lima		
Uruguay	Montevideo		No air travel in 2021

Middle East Region (MR)

Name of office	City	Other offices jointly reporting	Remarks
Jordan	Amman	Irbid	
Djibouti	Djibouti City		
Iraq	Baghdad	Erbil	
Palestine	East Jerusalem	Gaza	
Syria	Damascus		No air travel in 2021
Yemen	Sana'a		

New York Service Cluster (NYSC)

Name of office	City	Other offices jointly reporting	Remarks
Afghanistan	Kabul		
Burkina Faso	Ouagadougou		
Central African Republic	Bangui		
Colombia	Bogota		
Democratic Republic of Congo	Goma		
Iraq	Baghdad	Erbil	
Lebanon	Naqoura		No air travel in 2021
Mali	Bamako	Gao, Mopti, Tombouctou	
Somalia	Mogadishu		No air travel in 2021
South Sudan	Juba		
Sudan	Abyei	Khartoum	
Syria	Damascus		
Uganda	Entebbe		
Italy	Brindisi		
Spain	Valencia		No air travel in 2021
United States of America	New York City		

2.2.4. Emission source categories (direct, indirect and optional sources of GHG emissions)

See UN-wide IMP

2.2.5. UNOPS boundary condition assumptions

The inventory data collection methodology is, to the extent possible, the same throughout all offices.

Our boundary conditions and assumptions are outlined below:

Buildings

- Where UNOPS shares office facilities without a separate metre, emissions are apportioned by percentage of total square metres.
- All offices are required to report on electricity, refrigerants, steam and generator fuel consumption (when applicable).
- Where reliable electricity figures are missing, one of the following methods is used, in order of preference: 1) the electricity consumption per m² available from a nearby building is applied, or 2) a proxy is calculated using a SUN recommended methodology, based on emissions per country.
- Where refrigerants figures are missing, those are estimated by the SUN emissions calculator.
- Where steam figures are missing, one of the following methods is used, in order of preference: 1) the steam consumption per m² available from a nearby building is applied, or 2) a proxy is calculated using a SUN recommended methodology, based on emissions per country.
- If generator fuel figures are missing, a proxy is calculated using a SUN recommended methodology, based on emissions per country.

Air travel

UNOPS corporate travel agency provides a list of air travel itineraries and class of travel of all realized UNOPS missions booked through their system during the reporting year. All offices that do not use the corporate travel agency are required to upload all the missions realized during the year into the UNOPS Travel Registration Form. A comprehensive list – region by region and office by office – can be triggered, for review.

In case focal points have not uploaded missions, offices have been requested to maintain a list of official duty travel expressed in International Air Transport Association (IATA) codes and class of travel in their internal records.

- Where IATA codes are faulty and/or incomplete, they are corrected by the HQ HSSE Team on the basis of likelihood/approximations.
- Where it is impossible to determine the flight itinerary, a proxy based on office average value is applied.
- Large (>10 per cent) reporting gaps are marked.
- Entitlement Travel (ET) for international personnel is calculated as follows:
 - Flight itineraries are generated as follows: the closest large commercial airport to the indicated duty station and place of recruitment cities (as relevant) was selected for generating itineraries.
 - Where this information is not available, the average carbon footprint (CO₂ in kilograms) and trip distance (in kilometres) of available ET were therefore used as proxies for this group. The class of travel applied to the trips was economy class.
 - Where no reasonable information of the type of travel, number of travelers and likely itinerary were available, a data gap was marked.
- ET was also calculated for interns.
- Due to the COVID-19 coronavirus pandemic evolution, global air travel was significantly increased in 2021 compared to 2020. This affected air travel emissions as follows: A 95.45% increase in the number of Staff Home Leave travels and a 30.05% increase in the number of all Entitlement travels on average - in 2021 as compared to 2020. These variations were therefore applied accordingly to the existing ET proxy.

Public transportation

- Official duty travel using other means of transportation than air is irregularly recorded.
- Where local focal points provide this information, it is included in the inventory.
- It is impossible to quantify the size of the data gap for official duty travel by train, car and boat.
- To account for transportation to/from airports, the SUN Helpdesk recommends applying a proxy of 25 kilometres per terminal recorded under "taxi" where local practices are unknown.

This emission category will be targeted for data quality improvement.

Mobile sources

- When fuel consumption or mileage for mobile sources is not available, a proxy value for fuel consumption based on average fuel price from invoices is used (when the information is available).
- It is impossible to quantify the size of the data gap for mobile sources.

Water consumption

Water consumption data is collected following the GRI Standard on Water and Effluents (303). The data is relatively accessible through water bills and/or metres. Where UNOPS shares office facilities without a separate metre, water consumption is apportioned by percentage of personnel.

Waste management

Waste management data is collected following the GRI Standard on Waste (306). The data is accessible to some extent through waste contractor bills, however, less frequently than water data. However, the data turnover for waste management has significantly improved in the past few years, but full coverage has still not been obtained due to the voluntary nature of the reporting in the past. Where UNOPS shares office facilities without separate bills, waste generation is apportioned by percentage of personnel.

General remarks

It has been observed that data quality tends to improve after the first year of participation in the inventory (especially if the local focal point is confirmed). With these considerations in mind, the HQ HSSE Team offers online technical training every year to support the completion of the Environmental Inventory.

Due to the COVID-19 coronavirus pandemic continuing in 2021 some UNOPS office premises were closed for a part of the year, an increasing number of personnel were working part time from home, and global air travel slowly picked up, resulting in a significant change in the environmental footprint as compared to the pre-Covid pandemic years.

2.3 Emissions quantification

2.3.1. Quantification method

See UN-wide IMP

Note on quantification of Scope 3 emissions - duty travel emissions (air travel):

Business air travel is a significant component of UNOPS emission profile. In the UN Environmental Inventory, emissions from air travel are calculated using the latest available ICAO carbon calculator (v. 5.0.4).

2.3.2. Emission factors and other constants that are different than the UN-wide factors used

Name of office	City	Emission factor	Source
UNOPS headquarters (HQ) Denmark	Copenhagen	Emission factor for purchased steam: 68 grams (g) of CO ₂ equivalent (CO ₂ e) per (l) kilowatt hour (kWh)	The emission factor is provided by the local energy supplier, in their official environmental declaration on district heating for 2019.

2.3.3. Proxies used for each emission source category including all assumptions made, possible resulting errors/shortcomings, and ways we plan to improve these in the future

Emission source	Option #	Proxy	Possible errors	Plan to improve data
Electricity consumption	1	Use m ² energy efficiency index (EEI) of nearby building	Energy intensity of similar offices in the same area is assumed to be similar. The proxy doesn't allow for capturing of energy efficiency improvements.	Working with country offices to obtain electricity consumption data from host governments; agencies managing common premises; energy providers; etc.
	2	Use SUN proxy based on emissions per country	Proxy adapted to average UN emissions by country from purchased electricity, purchased steam/heat, stationary combustion, and refrigerants combined; considered reliable. The proxy doesn't allow for capturing of energy efficiency improvements.	It will continue to be used when other options are inapplicable.
Steam consumption	1	Use m ² steam consumption of nearby building	Steam consumption of similar offices in the same area is assumed to be similar. The proxy doesn't allow for capturing of efficiency improvements.	Working with country offices to obtain steam consumption data from host governments, agencies managing common premises, steam providers, etc.
	2	Use SUN proxy based on emissions per country	Proxy adapted to average UN emissions by country from purchased electricity, purchased steam/heat, stationary combustion, and refrigerants combined; considered reliable. The proxy doesn't allow for capturing of energy efficiency improvements.	It will continue to be used when other options are inapplicable.
Fuel combustion		Use SUN proxy based on emissions per country	Proxy adapted to average UN emissions by country from purchased electricity, purchased steam/heat, stationary combustion, and refrigerants combined; considered reliable. The proxy doesn't allow for capturing of energy efficiency improvements.	It will continue to be used when other options are inapplicable.
Refrigerants		Use SUN proxy based on	Proxy adapted to average UN emissions by country from	It will continue to be used when other options are inapplicable.

		emissions per country	purchased electricity, purchased steam/heat, stationary combustion, and refrigerants combined; considered reliable. The proxy doesn't allow for capturing of energy efficiency improvements.	
Air travel		Apply office average to missing itineraries	Emissions from flights with missing itineraries might diverge from office average.	Improve air travel reporting system through centralized online tool.
Air travel		Entitlement Travel proxy when travel departure and destination are not available	Average carbon footprint and trip distance of available Entitlement Travel trips used as proxies for missing trips; large margin of error.	Establish a centralized interface to register and report on ET details globally.
Public transport		Travel to/from airport	Inaccurate measure; it is paid as a lump sum, hence we cannot know the actual transport modality. The proxy also does not capture efficiency improvements (e.g. travelling by public service).	This emission source represents a minimal share of UNOPS footprint; and the burden for more accurate reporting is disproportionately large. Hence, this proxy will continue to be used.
Vehicle fleet		Fuel consumption	Estimates based on average fuel cost should be quite reliable even if not 100 per cent accurate.	Plan to require all drivers to log and report fuel consumption for their vehicles annually.

2.4 Data management

2.4.1. Sources of activity data

A web-based or an Enterprise Resource Planning-based system to collect building activity data does not exist but is currently under development. Data collection is performed through the circulation of the "Flat File" to local focal points, who fill it in with support from building administrators, logistics officers and office managers. In addition, local focal points forward the summary list of official duty travel (see below) based on a review from the office travel focal point and/or administrative assistant.

Scope 1:

- Fuel for stationary combustion: the source of activity data is typically invoices that report on quantities of purchased fuel, estimates based on average fuel cost, or consumption profiles recorded by building administrators.
- Fuel consumption/mileage for office vehicle fleet: activity data typically comes from fuel purchase receipts and/or log book records. Alternatively, vehicle log books are used to obtain mileage data.
- Refrigerants consumption: the source of activity data is typically limited to the refrigerant type, verified through physical inspection of the equipment. Occasionally, activity data on yearly refrigerants purchase based on invoices is available.

Scope 2:

- Electricity consumption: the source of activity data is typically bills from electricity providers, or consumption profiles provided by building administrators.
- Steam consumption: the source of activity data is typically invoices with quantities of purchased steam, or consumption profiles provided by building administrators.

Scope 3:

- Air travel data: air travel activity is monitored through UNOPS corporate travel agency's travel booking records; reporting on the UNOPS Travel Registration Form; or the creation of a summary list of travel authorizations in every office. Processing of travel itineraries is centralized to avoid duplications and inconsistencies.
- Public transport data: public transport activity is monitored through the same travel authorization list used for air travel, even though reporting on travel modalities other than air is much less accurate.

2.4.2. Data management

The data collection process is decentralized. The HQ HSSE Team provides global coordination and project management.

The data collection process is based on a network of focal points designated in every office hosting five or more personnel. An inventory launch message is sent to all local focal points, including the Flat File and instructions on how to provide an official duty travel report. In January 2022, three 1.5-hour online training sessions were offered to focal points to provide direct guidance on how to complete the Flat File and improve the quality of their reports.

When received by HQ HSSE Team, all data was quality checked and screened further, and air travel was processed in the ICAO calculator. All data was then submitted to the UN Environmental Inventory Coordinator based at the UNEP / SUN facility. A copy of each report is saved for internal records and verification purposes. A log file for the inventory is created, with reports split up by country locations.

2.4.3. Normalization factors

See UN-wide IMP

2.4.4. Data collection process for normalization factors

Two normalization factors are used: "m²" and "number of personnel". Data on both normalization factors is collected through the Flat File.

2.4.5. Quality assurance

Uncertainty is widespread in all data sources as office reports are rarely accompanied by any supporting evidence but rely fully on the accuracy of reporting personnel.

However, 2022 was the third year that an additional data quality assurance process was conducted in the inventory. Instead of submitting data directly to the HQ HSSE team as in previous years, focal points submitted to their respective Regional Coordinators. The Regional Coordinators were then tasked to conduct a preliminary screening of all data (Flat File and travel lists) over a 2-week period to ensure data quality and consistency, timeliness of reporting, and ownership of the regional environmental footprint. Following this preliminary screening, approved reports were submitted to the HQ HSSE team. During the reporting period, assistance to regional and local focal points was provided upon request through email and virtual meetings.

When received by HQ HSSE Team, all data was quality checked and screened further, prior to submission to the UNEP/ SUN facility.

2.4.6. Integrated tools

The corporate travel agency provides user-friendly reports on organizational air and rail travel on an annual basis.

For those offices not using the corporate travel agency, an online Travel Registration Form has been in use since 2011 via the UNOPS intranet to simplify the reporting exercise on air travel (see section 2.2.5, “Air travel”).

2.4.7. Frequency

Annual activity data for the Environmental Inventory for the previous calendar year are collected by local focal points and submitted to the HQ HSSE Team annually.

2.5 Base year

2.5.1. Base year

UNOPS performed its first Environmental Inventory in 2008 from its headquarters. This was considered a learning exercise and the experience was used the following year in the roll-out to field locations. Hence data for 2009 represents the first attempt to map UNOPS global environmental footprint.

However, 2009 data is not verifiable, no IMP has been produced for that inventory, and air travel figures (representing 36 per cent of total emissions) in particular are unreliable. Choosing 2008 or 2009 as base year would provide a distorted perception of UNOPS environmental performance over time. The 2010 inventory had better coverage and higher quality data, however it still did not provide a complete picture of the corporate environmental profile.

The inventory scope, quality and coverage was further expanded and improved until 2016; the 2016 inventory had significantly improved coverage and data quality. It should thus be expected that this inventory serves as the base year inventory.

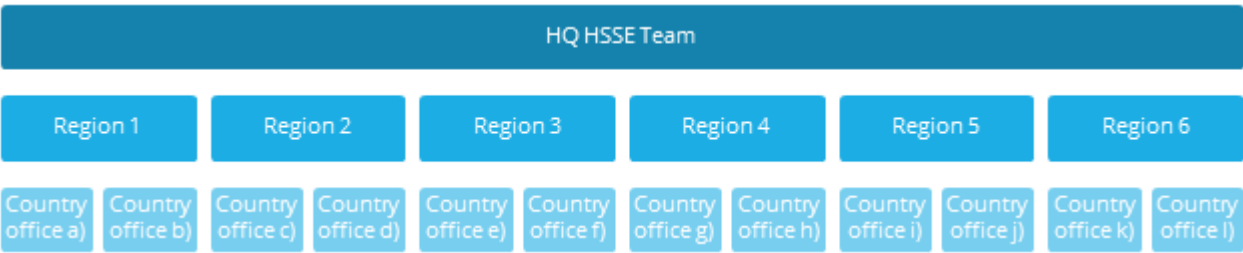
2.5.2. Base year recalculation policy

At present, a Base Year Recalculation Policy specific to UNOPS does not exist. UNOPS will follow the UN-wide recalculation policy when this is made available, and until its internal recalculation policy is developed.

2.6 Management tools

2.6.1. Roles and responsibilities

The chart of roles and responsibilities for the global inventory 2021 is provided below.



2.6.2. Training

Each year, there has been a need for further guidance and training for the inventory. It should be noted that the large majority of local focal points perform different professional functions than environmental sustainability.

To respond to the training requests, online training sessions were offered to local focal points in January 2022.

2.7 Auditing and verification

2.7.1. Internal auditing

Quality checks are conducted for the inventory, as described in section 2.4.5 “Quality Assurance”. In June 2020, the Internal Audit and Investigations Group also conducted an audit on UNOPS travel, which included travel covered by the Environmental Inventory.

2.7.2. External validation and/or verification

At present, there are no external procedures in place for external validation of the Environmental Inventory.

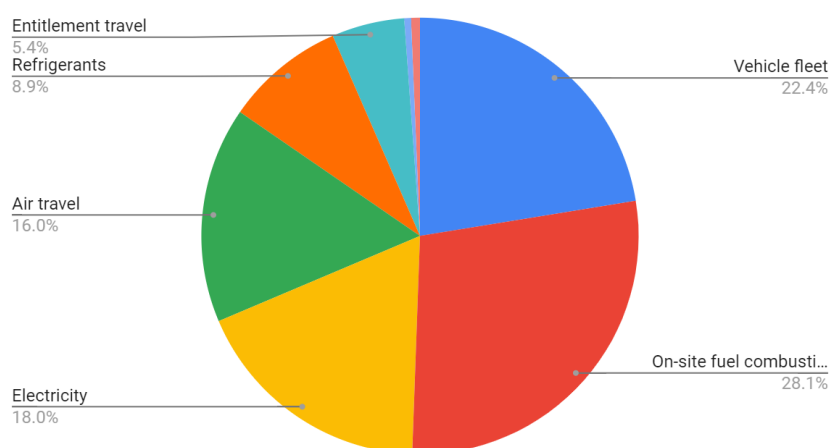
2.7.3. Management review

At present, there is no management review process for the Environmental Inventory.

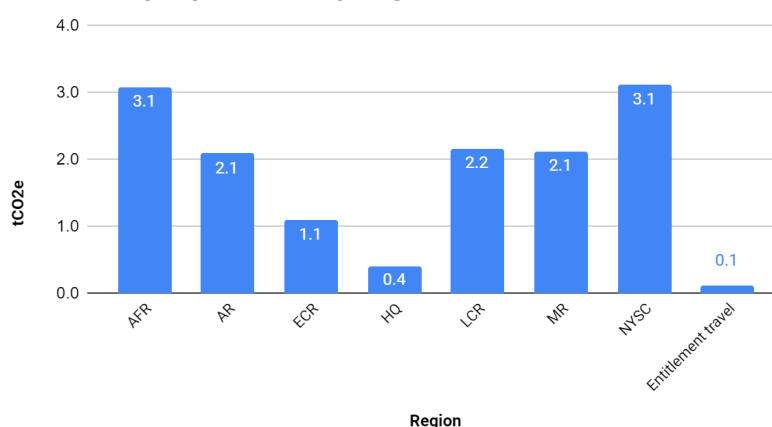
3. Appendix: Overview of UNOPS 2020 Environmental Inventory

Summary	
Reporting period	1 January - 31 December 2021
Number of inventories completed ³	67
Number of staff included in assessment	4,421
% of staff covered in assessment	87% ⁴
Total GHG emissions [tonnes CO ₂ e] with optional emissions	10,165
Total office space [m ²]	102,240
Global average emissions per staff [tonnes CO ₂ e]	2.3

Emissions by source, 2021



Emissions per personnel by Region, 2021



³ The number reflects "number of countries that reported emissions" - even if in some countries there may be several inventories (e.g. large offices or offices from different regions), while in other countries inventories might be bundled together in one (in particular in the case of different projects under the same office).

⁴ 4,421 personnel were included in the inventory as confirmed by the local focal points, and HR records indicated a total of 5,106 UNOPS supervised personnel in 2021 = 87% coverage by the inventory.