November 2023

UNDP ENVIRONMENTAL MANAGEMENT TOOL (EMT)
METHODOLOGY

CONTENTS

INTRODUCTION

The EMT assessment approach is based on internationally accepted standards including the World Resources Institute (WRI) Greenhouse Gas (GHG) Protocol and ISO 14064 Part 1. The methodology complies with UN-wide adopted and regularly further improved approaches. Emission Factors are provided by UNEP/Sustainable United Nations unless stated otherwise.

In all UNDP reporting tools, GHG emissions are reflected as tCO_2e = tonnes (metric ton) CO_2 equivalent.

If you need support or have suggestions on how to improve EMT reporting, please contact us at greening@undp.org!

ASSESSEMENT SCOPE

UNDP's assessment covers office operations (incl. premises and vehicle fleets), duty travel, training/entitlement travel and other operational activities that are controlled and financed by UNDP. As a general guiding principle, UNDP accounts for the environmental footprint of all operational activities controlled by UNDP. As a rule of thumb, this includes all operations paid for by UNDP. In exceptional cases, operations not directly paid for by UNDP are included if they are an essential part of UNDP operations. In detail:

Table 1. Overview of assessment scope

	INCLUDED	NOT INCLUDED
Travel: Included is all air/train travel that UNDP pays and arranges for. This includes travel of all UNDP staff, consultants, etc. as well as non-UNDP personnel if UNDP pays directly for tickets. Essentially, this should be all travel captured by the UNDP travel agent, as well as UNHAS travel if applicable.		
Example 1: UNDP pays for a consultant to go on mission and the ticket is booked through UNDP travel agents.	X	
Example 2: A consultancy company wins a bid in which a lump-sum is included to cover travel expenses. The consultancy company books travel themselves and it therefore does not show up in UNDP records.		X
Example 3: UNDP invites a government speaker to a workshop and pays and arranges for her/his travel.	X	
Example 4: A UNDP travel agent processes bookings for UNFPA. While those trips show up in the travel agents' data, UNFPA pays for tickets.		X
Example 5: UNHAS; each office is responsible to include UNHAS data in their overall air travel data. Contact the Helpdesk if you have trouble obtaining UNHAS data as data is also shared centrally by WFP.	X	
Example 6: Entitlement travel including home leave, training, R&R etc. is paid for and booked through UNDP travel services.	X	
Example 7: Entitlement travel is arranged by travelers themselves i.e. not included in UNDP's travel data but paid by UNDP either based on lump-sum or based on actual reimbursement.		X
Facilities (facilities energy consumption): Included are all facilities leased and/or operated by UNDP as well as all Main UNDP offices independently of lease and management arrangements.		
Example 1: A Main CO is hosted by the government and the government does or does not also pay for utilities.	X	
Example 2: A Main CO is in a shared premise, for example a UN House or a UN Mission and UNDP reimburses utility costs to the hosting agency.	X (UNDP's share of utility consumption only)	
Example 3: A project office (DIM or NIM) or sub-office is hosted by the government or another party. UNDP does not pay for utilities.		X
Example 4: A project office (DIM or NIM) or sub-office is leased or operated by UNDP and UNDP pays for utilities.	X (data entry not required, extrapolation sufficient)	
Example 5: A project office (DIM or NIM) or sub-office is hosted by the government or another party. UNDP pays for utilities.	X (data entry not required, extrapolation sufficient)	

Example 6: Warehouses, Accommodations, any other facility is leased or operated by UNDP.	X (data entry not required, the helpdesk will help to approximate based on m^2 space)	
Example 7: UNDP owns or leases an office space, accommodation or other facility but subleases it to another party.		X
Vehicles (vehicle fuel consumption): Included are all vehicles leased/owned by UNDP including project vehicles as well as other vehicle fuel if purchased by UNDP.		
Example 1: A (project) vehicle is shared with one or more agency and UNDP reimburses fuel costs to the hosting agency.	X (UNDP's share of fuel consumption only)	
Example 2: A vehicle is provided by the government, or another partner, and UNDP pays for fuel.	X	
Example 3: A vehicle is provided by the government or another partner, who is also paying for fuel use.		X
Example 4: Staff commute in private vehicles.		X
Example 5: Staff commute in a UNDP shuttle but paid by UNDP.	X	
Number of personnel: Included are all personnel funded by UNDP (staff, consultants, JPOs, UNVs, etc.). Excluded are UNCDF and the "Other" category used on the Corporate Dashboard.		

Explicitly excluded from the assessment scope are GHG emissions resulting from:

- Projects implemented by external entities;
- Staff commute;
- Couriers and postal mail;
- Embedded carbon in products and equipment used by UNDP;
- Decomposition of waste except for refrigeration assets.

FACILITY STRUCTURE

Offices are required to submit actual data for all main UNDP offices and are encouraged to submit data for all additional facilities under UNDP management. The facility structure for each office can be maintained on its respective "Facility Structure page". For all offices for which no data is reported, offices provide the number of all persons located in these additional facilities that have not already been reported. This number is used to prorate facility GHG emissions by using available facility data from reporting facilities in the respective reporting year.

In many locations UNDP shares facilities with other UN agencies. Since UN agencies report GHG inventories separately, only persons working for UNDP are included in the UNDP GHG inventory. Colleagues from UN Women, UNCDF, UNOPS, and UNFPA are not included as these agencies report separately. UN Volunteers are only included where working in UNDP offices, whilst UNV Headquarters in Bonn, Germany, reports GHG emissions separately.

CARBON FOOTPRINT

Consolidated carbon emission data are available at global, bureau, office, and facility level. The consolidated data on the EMT dashboard includes reported and prorated data for offices that did not report for a given year. Due to the pandemic years[1], it was decided to use different approaches over the years to ensure the prorated data would be as accurate as possible. The various scenarios are outlined in table 2 below. By default, from 2021 onwards, the methodology uses copied data from the previous year until an office reports actual data.

[1] *For UNDP's EMT methodology considered to be 2020 and 2021.*

Table 2. Overview of various reporting approaches

PHASE	YEAR	DATA INCLUDES
PRE-COVID	2018-2019 (baseline year)	▪ Reported data ▪ Copied data from 2018/19 for offices that reported in one of these years ▪ Organization-wide averages per sub-category for non-reporting offices.
COVID	2020	▪ Reported data ▪ Organization-wide trends per sub-category in reported data from previous year for non-reporting offices.
"POST" COVID	2021+	▪ Reported data ▪ Copied data from last year for non-reporting offices.

FACILITY CARBON FOOTPRINT

The facility-related activities reported in the EMT are organized as follows:

Table 3. Facility GHG overview

MAIN CATEGORY	SUB-CATEGORY	GHG PROTOCOL SCOPE	CALCULATIONS
ELECTRICITY	Grid electricity	Scope 2	Grid electricity consumption [kwh] * country-specific emission factor [tCO_2e/kwh] = GHG emissions from grid electricity [tCO_2e]. Country-specific emission factors are provided on the bottom of the **Facility page**.
	On-site generator fuel use	Scope 1	Generator gasoline/diesel [liters] * 0.0026908 tCO_2e/liter = GHG emissions from on-site fuel combustion [tCO_2e] The corresponding generated electricity in kWh is calculated automatically as follows: Generator gasoline/diesel [liters] * 2.5 = kWh from on-site generator.
HEATING	On-site fuel combustion for heating purposes	Scope 1	Fuel type (unit) * fuel-specific emission factor = GHG emissions from on-site fuel combustion [tCO_2e]. Fuel type / Emission Factor (tCO_2e/unit) heating oil (l.) / 0.0024939 natural gas (m3) / 0.0018895 crude oil (l.) / 0.0024939 residual oil (l.) / 0.0029544 Other / Manually inserted by FP
	District heating	Scope 2	Consumed heat/steam [unit] * specific Emission Factor [tCO_2e/unit] = GHG emissions from district heating [tCO_2e].
REFRIGERANTS	Leakage of refrigerants from cooling units in UNDP facilities and vehicles	Scope 1	Direct emissions are calculated from the year of installation/procurement of the cooling asset until (and including) disposal. See detailed methodology here. **Important:** Due to the revised methodology implemented as of 2022 reporting, the carbon footprint resulting from these calculations in 2022 has been used to project refrigerant emissions for previous years (2018-2021) to establish a comparable, meaningful baseline against which reductions can be tracked credibly. As of 2023 reporting, data will be updated by offices on an annual basis.

PRORATED FACILITY GHG EMISSIONS	-	Scope 1-2	For additional offices for which no data is reported, offices provide the number of all persons located in these additional facilities on the **Facility Structure page**. This number is used to prorate any facility GHG emissions by using available facility data from reporting facilities in the respective reporting year.

VEHICLE CARBON FOOTPRINT

The vehicle fleet-related activities reported in the EMT are organized as follows:

Table 4. Vehicle GHG overview

MAIN CATEGORY	SUB-CATEGORY	GHG PROTOCOL SCOPE	CALCULATIONS
VEHICLE FUEL USE	-	Scope 1	Consumed gasoline [liters] * 0.0022718 [CO_2e/liter] + Consumed diesel [liters] * 0.0026265 [tCO_2e/liter] = GHG emissions from vehicle operations [tCO_2e]
VEHICLE COOLING	-	Scope 1	Covered under "Refrigerants" category.

TRAVEL CARBON FOOTPRINT

The travel related activities reported in the EMT are organized as follows:

Table 5. Travel GHG overview

MAIN CATEGORY	SUB-CATEGORY	GHG PROTOCOL SCOPE	CALCULATIONS
AIR TRAVEL	-	Scope 1	GHG emissions from **air travel conducted between 1 January and 31 December** and are calculated with the ICAO calculator. Please find the detailed ICAO methodology here.
PUBLIC TRANSPORT	-	Scope 1	Includes train and taxi travel. Taxi travel is approximated based on number of estimated terminal travels [4 per duty travel round trip] and assuming an average distance of 20 km for each terminal travel. Resulting emissions are: Train travel [km] * 0.0001152 tCO_2e/km + (number of duty travels) * 4 * 20 [km] * 0.000147 tCO_2e/km = GHG emissions from public transport [tCO_2e].

MOONSHOT TRACKER

The Moonshot Tracker uses data from the most recently finalized reporting year[2] and provides a snapshot of how UNDP is doing at global, bureau and office level towards the Moonshot Target in 2030 as compared to the 2018/19 baseline year. The tracker contains two sections as follows:

1. PROGRESS PER CATEGORY

This section includes two functions:

1. Icons showing the increase/decrease in % of its respective carbon footprint as compared to the 2018/19 baseline. The icons reflect:
   - **TOTAL CARBON FOOTPRINT:** All carbon emission sources reported in the EMT.
   - **ELECTRICITY USE:** Emissions from grid electricity and electricity from on-site generators.
   - **VEHICLE FUELS:** Emissions from vehicle fuel use.

[2] *It is expected that, once the new ERP is live, the Moonshot Tracker will be able to use real time data.*

- **AIR TRAVEL:** Emissions from air travel.

2. Track statuses to show progress towards the 2030 Moonshot Target as compared to 2018/19 baseline. The green/red track statuses reflect whether the % of the selected year is above or under its yearly reduction needed to achieve the 2030 target. The four categories above have different thresholds for the track statuses as per table 6 below.

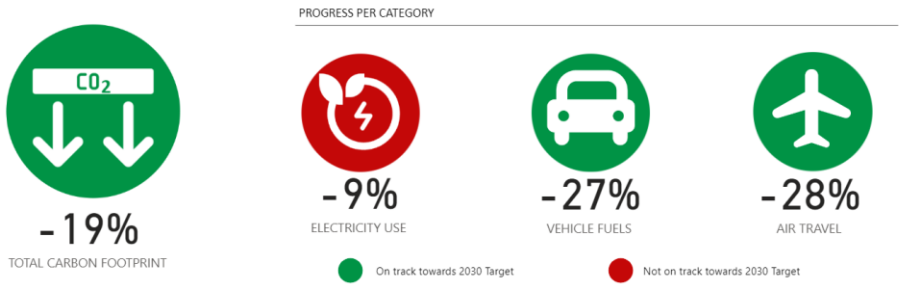

Image 1. Example of Moonshot Tracker icons and track statuses

Table 6. Thresholds for track statuses

CATEGORY	MOONSHOT TARGET	NOT ON TRACK	ON TRACK
TOTAL CARBON FOOTPRINT	-50% by 2030	Anything below the "target %"	Anything between the "target %" and -100%
MAIN GHG SOURCES: ▪ **ELECTRICITY USE** ▪ **VEHICLE FUELS** ▪ **AIR TRAVEL**	-55% by 2030	Anything below the "target %"	Anything between the "target %" and -100%

Table 7. Example of UNDP global GHG calculations for Moonshot Tracker[3]

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Actual GHG	**64,080**	**34,534**	**38,105**	**52,541**								
Actual %	+2%	-45%	-39%	-16%								
Target GHG	**60,011**	**57,402**	**54,793**	**52,184**	**49,575**	**46,965**	**44,356**	**41,747**	**39,138**	**36,529**	**33,919**	**31,310**
Target %	-4%	-8%	-13%	-17%	-21%	-25%	-29%	-33%	-38%	-42%	-46%	-50%
Track status	**NOT ON TRACK**	**ON TRACK**	**ON TRACK**	**NOT ON TRACK**								

2. PROGRESS INDICATORS

Additional progress indicators show progress for relevant indicators as reported in the EMT, such as:

a) Aggregated kWp capacity.
b) Total number of electric vehicles compared out of total number of vehicles.
c) % of cooling assets using low-impact refrigerants (GWP <150), calculated as follows: number of assets with low-impact refrigerants out of total of cooling assets[4].
d) Annual energy and ticket cost savings (projected) calculated as follows: (electricity baseline-electricity actual) * 357 + (Vehicle baseline-Vehicle actual) * 562.6 + (Air baseline-Air actual) * 4002.4.

[3] *Actual GHG emissions snapshot of August 2023. As this is living data, it may not correspond with the latest data on the EMT dashboard.*
[4] *The total of cooling assets includes a portion of unknown refrigerants as reported by the offices, for which high GWP refrigerant proxies are used.*

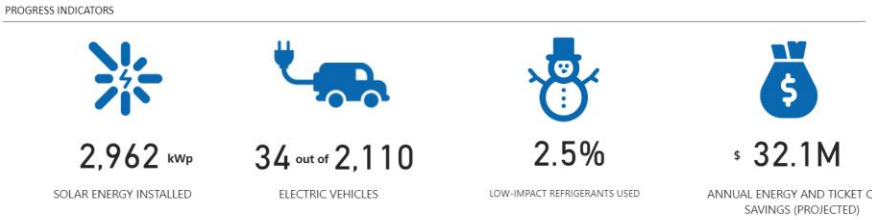

Image 2. Example of progress indicators