Greening the Blue Report 2021

The UN System's Environmental Footprint and Efforts to Reduce It

GREENING THE BLUE

UN environment programme

5 1972–2022

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I. Abbreviations and Acronyms

ASR	Annual Statistical Report
BRS	Basel, Rotterdam and Stockholm Conventions
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CEB	The UN System Chief Executives Board for Coordination
CERs	Certified Emission Reductions
CH4	Methane
CO2	carbon dioxide
CTBTO	Comprehensive Nuclear-Test-Ban Treaty Organization
DOS	Department of Operational Support
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
EMS	Environmental Management System
EMG	Environmental Management Group
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
eq	equivalent
FAO	Food and Agriculture Organization
FRIM	Field Remote Infrastructure Monitoring
GCF	Green Climate Fund
GHG	Greenhouse gas
GWP	Global warming potential
HFCs	Hydrofluorocarbons
HQ	Headquarters
IAEA	International Atomic Energy Agency
ICAO	International Civil Aviation Organization
ICEC	ICAO carbon emissions calculator
ICT	Green Information and Communication Technology
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
ILO	International Labour Organization
IMF	International Monetary Fund
IMO	International Maritime Organization
IOM	International Organization for Migration
ISO 14001	International standard for environmental management systems (EMS)
ITC	International Trade Centre

ITU	International Telecommunication Union
ITU-T	International Telecommunication Union Standardization Sector
KG	kilograms
kWh	kilowatt-hour
m3	cubic metre
NGOs	Non-Governmental Organisations
N2O	Nitrous Oxide
OCHA	Office of the Pacific Islands
OHCHR	Office of the United Nations High Commissioner for Human Rights
OPCW	Organisation for the Prohibition of Chemical Weapons
PFCs	Perfluorochemicals
QR	quick-response
REACT	Rapid Environment and Climate Technical Assistance
SF6	Sulfur hexafluoride
SUN	Sustainable United Nations
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNCCD	United Nations
UNCDF	United Nations Capital Development Fund
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP-WCMC	World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UN-Habitat	United Nations Human Settlements Programme
UNHCR	Office of the United Nations High Commissioner for Refugees
UNHQ	United Nations Headquarters
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
UNOG	United Nations Office at Geneva

UNON	United Nations Educational, Scientific & Cultural
UNOPS	United Nations Office for Project Services
UNOV	United Nations Office at Vienna
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
UNSSC	United Nations System Staff College
UNU	United Nations Volunteers programme
UNV	United Nations Volunteers Programme
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
UNWTO	World Tourism Organization
UPU	Universal Postal Union
WFP	World Food Programme
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WMO	World Meteorological Organization
WMY	Waste Management Yard
WSIS	World Summit on the Information Society
WTO	World Trade Organization

II. Executive summary

In 2007, the United Nations (UN) system embarked on a journey to integrate environmental sustainability in its facilities and operations. Since then, the United Nations Environment Programme (UNEP) annually collects and analyses the information provided by UN system entities on their environmental impacts and publishes this data in the *Greening the Blue Report: the UN system's environmental footprint and efforts to reduce it.*

The *Greening the Blue Report 2021* (hereafter the *Report*) is purely disseminated in digital form and is composed of three elements: this PDF, entity webpages and data tables. This PDF focuses on the UN system-wide data, whereas entity-specific information is provided on the *Environmental Performance Dashboard* Annex, data tables and on each contributing entity's greeningtheblue.org webpage. The 2021 edition of the *Report* covers 2020 data.

Updated criteria have been introduced in the 2021 edition of the *Report* to assess progress on environmental governance in line with the requirements of the *Strategy for Sustainability Management in the United Nations System 2020 – 2030, Phase I: Environmental Sustainability in the Area of Management* (hereafter the *Strategy*). As a result, only two entities have an environmental management system that meets the new requirements, while 13 are approaching the requirements.

In 2020, the UN system generated ~1.5 million tonnes CO_2eq greenhouse gas (GHG) emissions, with per capita emissions of 5 tonnes CO_2eq. The sources of the emissions were 32 per cent from air travel, 12 per cent from other travel (rail, road, sea, etc.) and 55 per cent from facilities. Better data collection allows this year to report that, in 2020, 19 per cent of UN electricity worldwide came from the use of renewable energies either purchased from the country grid or self-generated.

The UN system was able to offset 99 per cent of of GHG emissions. The goal to achieve 100 per cent climate neutrality of its 2020 footprint was established in 2015 as part of the UN system's initial commitment to measure, reduce and, offset GHG emissions. While offsetting is an important factor in managing unavoidable emissions, the priority for the UN system remains emissions reductions and elimination.

With significant worldwide travel restrictions and large portions of UN personnel working from home, the UN system generated approximately 25 per cent fewer GHG emissions than in 2019. The steep reduction in GHG emissions reflects the sudden and dramatic adaptations in operations that had to be made throughout 2020 as a result of the global COVID-19 pandemic.

The steep reduction in GHG emissions reflects the sudden and dramatic adaptations in operations that had to be made throughout 2020 as a result of the global COVID-19 pandemic

The required adaptations to UN operations due to COVID-19 also resulted in reductions in waste generation and water consumption. Per capita waste generation for the whole UN system in 2020 was 396 kg/person. If Peacekeeping and Special Political Missions, which include personnel's living quarters and so have a higher waste generated average than other entities, are excluded from the total, the per capita is 184 kg. This is a reduction of 61 kg/person and 43 kg/person respectively from 2019. Water use also saw a reduction compared to 2019. In 2020, an average of 38 m^3 of water was consumed per person by the UN system. In 2019, this average was 49 m^3.

COVID-19 radically changed the ways in which many UN entities work and engage with one another, with their personnel, member countries, companies and other organizations. As a result, much of the UN system's work moved online and the use of digital technologies became paramount to the continued delivery of the UN's mandate. This shift in working modalities proved to have numerous impacts. For instance, at some entities, online events support increased over 100 per cent during 2020; at the same time, remote events have been found to reduce the carbon footprint inherent in major international meetings and be more inclusive than physical events.

While much of the UN system's work and mandate delivery has moved online during the pandemic, there is still a substantial amount of work that can only be delivered in-person and requires physical facilities and physical technologies. With this reality in mind, several entities improved their environmental footprint across different environmental impact and management areas during 2020. From changing the selection criteria for a building renovation in order to implement sustainable procurement; to installing remote monitoring technologies in several refugee camps, thereby enabling the monitoring of water usage and consumption; to a new waste management yard that promotes recycling and reduction; to a biodiversity garden that provides education and baskets of food; to the use of solar-powered electric cookers to reduce potential health impacts of air pollution, UN entities are taking action to achieve the objectives of the *Strategy*.

Installation of 760 solar panels in Jordan.
Credit: WFP/Dina El-Kassaby

UN Secretary-General Quote

"Facing a triple planetary emergency — a climate crisis, a nature crisis and a pollution crisis — we need urgent and determined action from everyone, everywhere. The United Nations is committed to lead by example in reducing our carbon and environmental footprint in all our operations around the globe. Together, let's achieve a sustainable, net-zero and resilient world for all."

– António Guterres, UN Secretary-General

III. Overview

The annual *Greening the Blue Report* provides information on the UN system's environmental footprint and efforts to reduce it. It intends to determine if the UN system's facilities and operations are "on the right track" with their environmental objectives and show where adjustment might be needed. The *Report* also serves both to inform the public on how the UN system is doing in its environmental sustainability efforts and, hopefully, as a source of inspiration for other organizations.

The 2021 edition of the *Report* covers data for 2020. It focuses on the environmental impacts of over 315,000 personnel in Headquarters, in thousands of field offices and in operations on the ground. Fifty-four entities provided data. Two entities did not provide any data for this edition of the *Report*. As well, not all entities provided data in all reporting areas. For this reason, the number of personnel and the number of entities included in each reporting area is specified. For calculating Reporting Completeness, the total number of 56 entities is used unless stated otherwise.

The *Report* reflects the progress in the implementation of the *Strategy for Sustainability Management in the United Nations System 2020-2030, Phase I: Environmental Sustainability in the Area of Management*, which was endorsed by the UN System Chief Executives Board for Coordination in 2019.

The *Greening the Blue Report 2021* has three main components:

1. This digital PDF
2. Entity-specific webpages
3. *UN Entities' Reported 2020 Data Tables*

All three components provide the full picture of the UN system's environmental footprint and efforts to reduce it in 2020.

The UN system first published its greenhouse gas (GHG) emissions in 2009 for 2008 emissions. With time, reporting has improved accuracy and scope to include environmental impact areas and management functions identified in the *Strategy*. This now allows for the observation of trends in GHG emissions reductions and improvements in management functions. These entity-specific GHG emission trends are shown for the first time in this edition of the *Report* in the *Environmental Performance Dashboard* Annex. Entity-specific data on the other environmental impact areas are provided in the *UN Entities' Reported 2020 Data Tables*.

It is important to note that the annual *Report* is a snapshot in time and thus cannot reflect the current or ever-changing realities of the diverse UN system. In no way does the report rank UN system entities against one another, nor against a scale of good or bad sustainability efforts.

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Entity-specific data is available online at
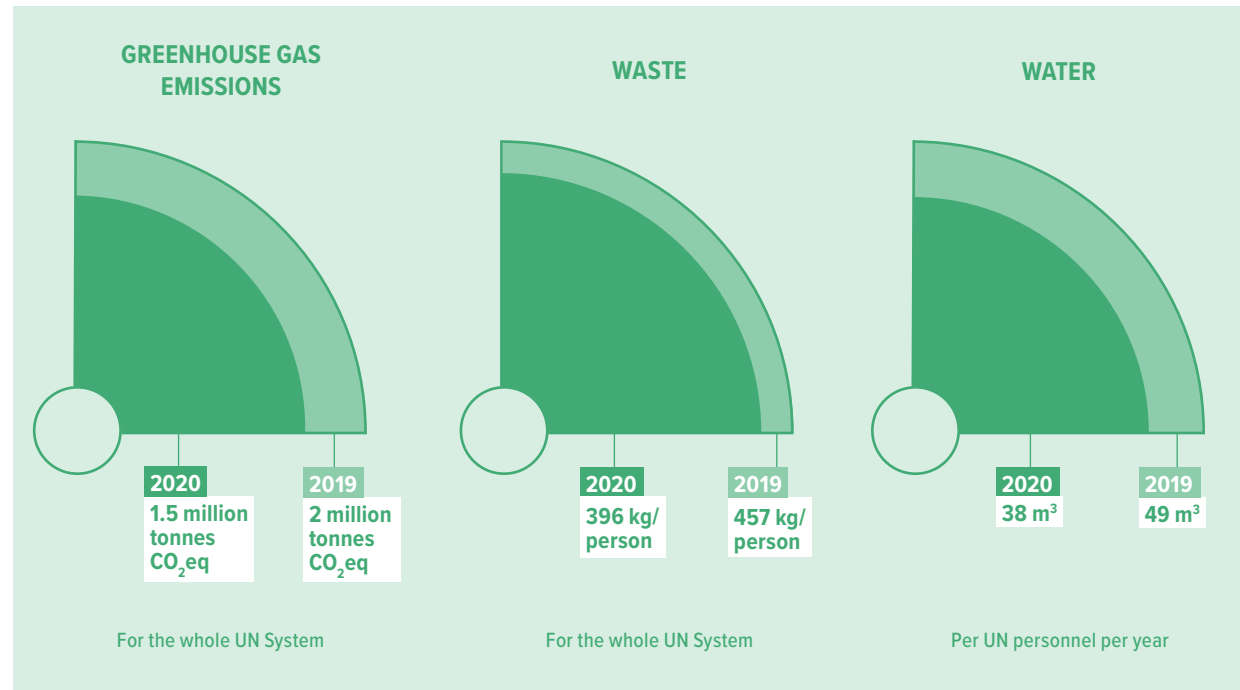
www.greeningtheblue.org/performance/entities

IV. Impacts of COVID-19

This edition of the *Greening the Blue Report* is the first to reveal impacts on the UN system's environmental footprint due to COVID-19. As expected, GHG emissions, especially those from travel, were much lower than in previous years. The UN's delivery model has so far been heavily based on the mobility of its personnel to deliver on its mandates on the ground or for large events that are at the base of multilateral agreements. In the past ten years, emissions from air travel have been the largest part of total generated GHG emissions, ranging from 40 per cent to 99 per cent in individual entities and on average 46 per cent of the UN system's total.

The restrictions on mobility imposed by the pandemic have profoundly changed the working modalities of the UN system. The percentage of air travel on total UN system emissions has declined from 45 per cent in 2019 to 32 per cent in 2020.

While COVID-19 continues to have a drastic impact on the ways that people work and live worldwide, UN operations have never completely stopped. Essential travel has continued; and even when almost no one was physically working in them, facilities continued to be heated, cooled and lit as necessary for security reasons and to avoid damaging infrastructure. Humanitarian, peacekeeping and on the ground essential operations have also continued to bring much-needed support and relief to fragile populations.

GREENHOUSE GAS EMISSIONS

2020 1.5 million tonnes CO_2eq

2019 2 million tonnes CO_2eq

For the whole UN System

WASTE

2020 396 kg/person

2019 457 kg/person

For the whole UN System

WATER

2020 38 m³

2019 49 m³

Per UN personnel per year

When considering the steep decreases in 2020 emissions, it is important to keep in mind that some facilities' emissions, such as heating, cooling, lighting and power for computers, are now produced at personnel's homes instead of the office. Like many other organizations, the UN is taking stock of the challenges and opportunities of the new normal. However, until these are defined, the methodology for the UN environmental inventory covering UN facilities and operations will remain unchanged.

The COVID-19 pandemic has taught us that there are many ways to work and collaborate that can help reduce negative work-related environmental impacts. As the UN system continues to cope with the ongoing pandemic, it is also looking at ways to implement these learnings for the long-term.

V. Greening the Blue Tutorial

To meet the United Nations' environmental commitments, the engagement of every UN personnel member is key to success. With the proliferation of entity-specific environmental management systems and the need to communicate about organizational efforts in Greening the Blue, several UN entities expressed the need to equip personnel with a thorough grasp of what environmental sustainability means, why it is important and the role each person can play in reducing the UN's carbon footprint.

Greening the Blue Tutorial (hereafter the *Tutorial*) was launched in 2014 by the United Nations Environment Programme, United Nations Development Programme and the Issue Management Group on Environmental Sustainability Management to respond to these needs.

The *Tutorial* was updated during 2020 and 2021 to reflect the most recent global and UN system changes, to make the main characters gender-neutral and to align with the requirements for training for UN Staff identified in the *Strategy for Sustainability Management in the United Nations System 2020 - 2030, Phase I*.

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Access *Greening the Blue Tutorial* at
www.greeningtheblue.org/tutorial

The updated version of the *Tutorial* remains free for use across the UN system and externally by the public. Additionally, the updated version is available in English, French and Spanish.

It is delivered as a one-hour animation, in which we follow two animated characters - Stick and Bean - on a typical workday, segmented into 10 modules. Each module represents a different activity. Activities include booking travel, taking a lunch break, travelling on ground transport and arranging meetings.

The *Tutorial* is presented in a fun and light tone, with multiple opportunities for user interaction. It allows the user to explore the different decisions related to the environment that UN personnel face day-to-day and to understand how these can impact the environmental footprint of the organization.

By being open for use by all, the *Tutorial* also helps demonstrate the UN's commitment to its environmental sustainability mission and provides advice to anyone outside the UN system wanting to learn how to reduce their workplace carbon emissions.

"Thanks to the Greening the Blue Tutorial, I understood that small actions, when taken regularly, can transform the world. It has made me aware of and question my daily actions and habits and has made me a better activist in the fight against climate change, in addition to reinforcing my knowledge of Greenhouse Gases by providing me with practical tools to reduce my ecological footprint in my work environment. I am now better equipped to play my dual role as a champion to support my colleagues in addressing the global climate crisis and help the UN system achieve its climate goals through local actions that will have global impacts."

– Larissa Tuayo, UNDP-Cameroon

VI. Environmental Impacts

This section includes information on the environmental impact areas identified in the *Strategy for Sustainability Management in the United Nations System 2020-2030, Phase I: Environmental Sustainability in the Area of Management* for which UN entities have provided 2020 data. For each environmental impact area, the *Strategy* establishes a UN system-wide objective to be achieved by 2030. How best to achieve this objective is specific to each UN entity; for this reason, entity-specific data is available online at www.greeningtheblue.org/performance/entities.

In each area, one case study from a UN entity that successfully made improvements in 2020 in the area is highlighted. The case studies aim to celebrate success and provide a concrete example of what can be done with determination, creativity and innovation.

Prior to the endorsement of the *Strategy* in 2019, biodiversity was not an identified environmental impact area. Initial work on biodiversity in 2020 was carried out in support of the UN Common Approach to Biodiversity, adopted in May 2021. "The Common Approach" provides an overarching framework for collective action and joint delivery on biodiversity. In the coming year, UNEP's Sustainable UN Facility will further elaborate indicators on biodiversity and begin a piloting process for entity-level reporting on the four management areas covering: Procurement, Operations & Facilities, Staff Awareness and Meetings & Events.

While no 2020 biodiversity data is available for this *Report*, a case study is included.

Entity-specific data is available online at
www.greeningtheblue.org/performance/entities

Greenhouse Gas Emissions

2030 Objective

Reduce absolute greenhouse gas emissions by 2030 to limit the increase in global temperature to 1.5°C, in line with the recommendations of the 2018 report of the Intergovernmental Panel on Climate Change.

To achieve the objective, each entity will define its own specific targets and baselines and look at aspects such as: electricity use, energy sources, air travel and ground travel.

2020 UN SYSTEM DATA[1]

EMISSIONS (tCO$_2$eq) BY SOURCE

55% Facilities
32% Air travel
12% Other travel

100 50 50 100
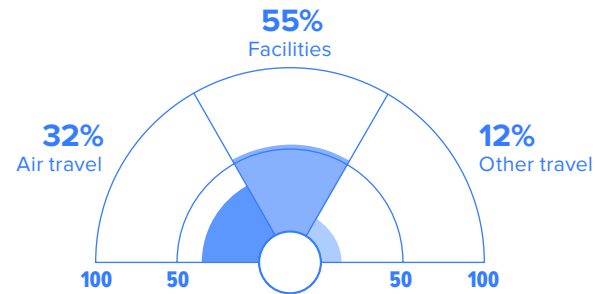
TOTAL EMISSIONS 2020
~1.5 million tonnes CO$_2$eq

PER CAPITA EMISSIONS
5 tonnes CO$_2$eq

315,000 personnel in 54 entities are included in this system-wide data

SHARE OF TOTAL EMISSIONS (~1.5 MILLION tCO$_2$eq) BY ENTITY

50
25
75
100

4% Remaining entities (<1% contribution from each)
4% IAEA (1%), IMF (1%), UNFPA (1%), UNOPS (1%)
5% WFP
6% UNHCR (3%), UNICEF (3%)
8% IOM (2%), WHO (2%), UNDP (2%), FAO (2%)
9% World Bank Group
64% UN Secretariat
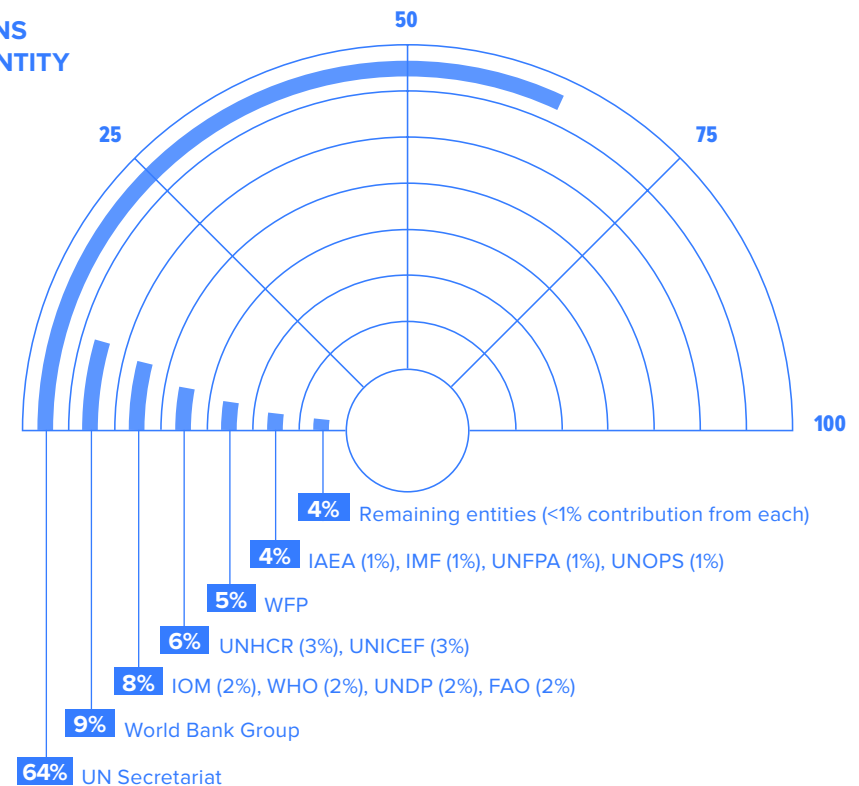
1 Percentages are rounded to the nearest integer, as a result they may not total 100.

UN Secretariat 2020 Greenhouse Gas Emissions

The UN Secretariat comprises almost two-thirds (64 per cent) of the UN system's carbon footprint. It is a large and complex organization, performing different functions around the world. Here is a breakdown of the main entities comprising the UN Secretariat that contribute to the *Report*, by their respective GHG emissions.

The clustering of entities under different titles has been done based on their functions using the *UN System Chart* as a reference.
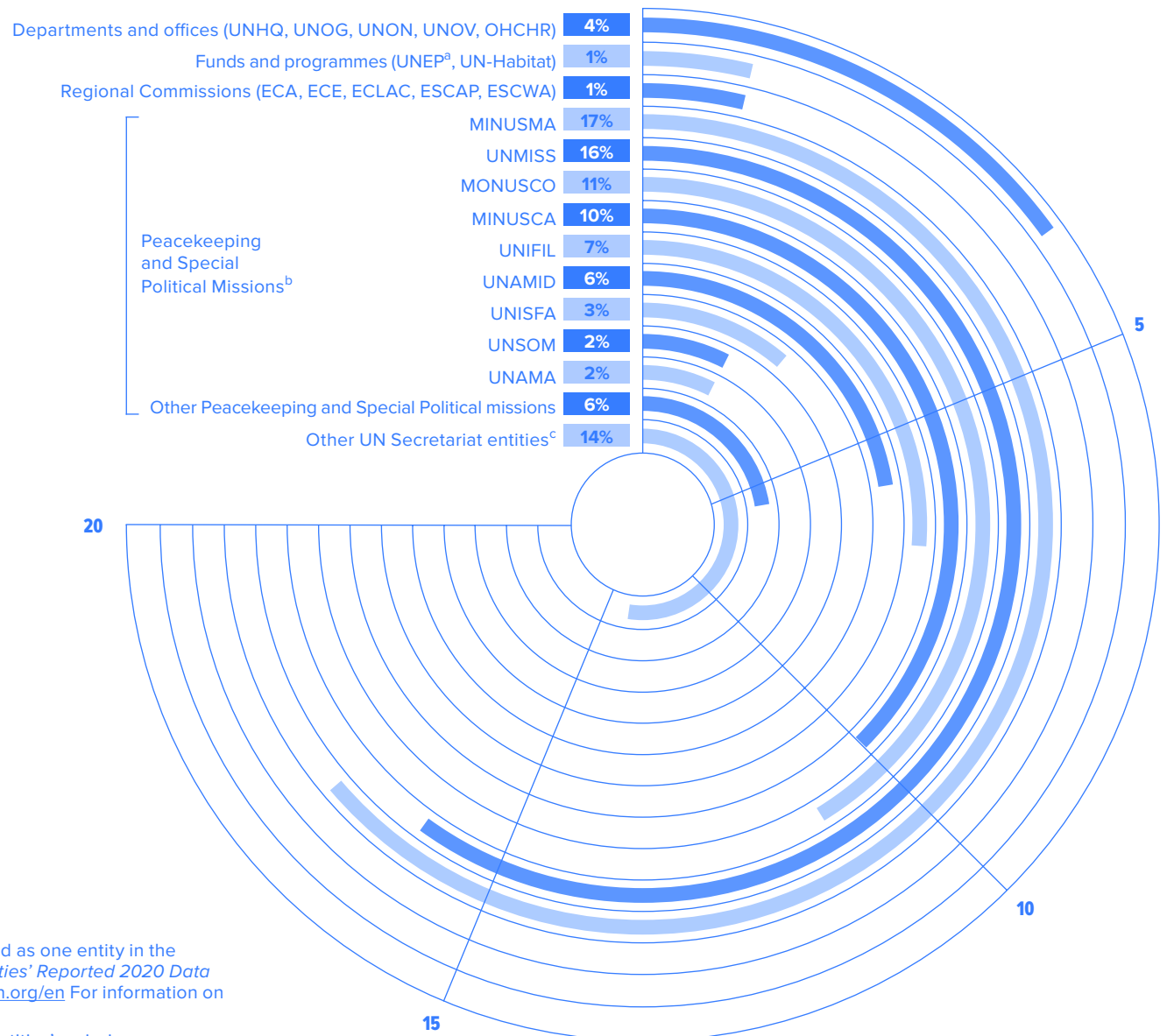
TOTAL EMISSIONS 2020
~960,000 tonnes CO$_2$eq

PER CAPITA EMISSIONS
7 tonnes CO$_2$eq

150,000 personnel in 16 entities are included in this data

a   UNEP includes BRS, CBD and Ozone Secretariat.

b   Peacekeeping and Special Political Missions are represented as one entity in the *Environmental Performance Dashboard* Annex and the *UN Entities' Reported 2020 Data Tables*. For information on Peacekeeping, see peacekeeping.un.org/en For information on Special Political Missions, see dppa.un.org/en

c   This cluster represents AMISOM and other UN Secretariat entities' emissions sources.

SHARE OF TOTAL UN SECRETARIAT EMISSIONS (~960,000 tCO$_2$eq) BY ENTITY

Entity	Share
Departments and offices (UNHQ, UNOG, UNON, UNOV, OHCHR)	4%
Funds and programmes (UNEP[a], UN-Habitat)	1%
Regional Commissions (ECA, ECE, ECLAC, ESCAP, ESCWA)	1%
MINUSMA	17%
UNMISS	16%
MONUSCO	11%
MINUSCA	10%
UNIFIL	7%
UNAMID	6%
UNISFA	3%
UNSOM	2%
UNAMA	2%
Other Peacekeeping and Special Political missions	6%
Other UN Secretariat entities[c]	14%

Peacekeeping and Special Political Missions[b]

Climate Neutrality

While the UN system is working hard to reduce its carbon footprint, some emissions are still unavoidable and need to be addressed. To achieve carbon neutrality, the UN will need to reduce and offset carbon emissions to the maximum extent possible and offsetting those emissions which cannot yet be reduced.

Offsetting is the process whereby entities take responsibility and compensate for their remaining unavoidable emissions by purchasing UN-certified carbon credits from projects that are achieving the removal of, or reductions in greenhouse gas (GHG) emissions of an equivalent amount. Example projects include installing new renewable energy facilities, restoring forests, delivering clean cook-stoves or improving energy efficiency in homes.

Offsetting encourages the development of additional GHG emission reduction or avoidance projects and brings sustainable development benefits to developed countries, in line with the UN Sustainable Development Goals.

Certified Emission Reductions (CERs) are offsets issued by projects that are part of the UN's Clean Development Mechanism (CDM). The quality of a project is verified and guaranteed by the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat in a process that requires third party verification and national government and CDM Executive Board's approval.

99%
of the UN system's reported 2020 greenhouse gas emissions are offset

The UN system committed in 2015 to offset 100 per cent of unavoidable emissions by 2020. The goal was established as part of the UN system's initial commitment to measure, reduce and offset GHG emissions. Offsetting remains an important factor in managing unavoidable emissions, the priority for the UN system is however emissions reductions.

Greener Connections Through Virtual Meetings

The COVID-19 pandemic has made virtual meetings almost the only channel for United Nations agencies to engage with member countries, companies and other organizations. At the International Telecommunication Union (ITU), requests for electronic events, including technical support to delegates and participants, increased over 100 per cent during 2020. ITU was quick to use its in-house expertise to adapt tools and processes to this new digital reality.

By March 2020, for example, the ITU Standardization Sector (ITU-T) had facilitated the organization's first fully virtual statutory event via a customized MyMeetings platform. The Geneva Internet Platform and DiploFoundation recognized such efforts at the 6th Geneva Engage Awards, where ITU received an award for "innovative and effective approaches to conducting remote meetings" (2021).

Expansion of meetings into a virtual format has led to wider outreach and the possibility of greater participation of women and stakeholders from all regions. For example, the 2020 edition of the World Summit on the Information Society (WSIS) Forum – the first conducted virtually – had a female participation rate of 45 per cent and became the most highly attended WSIS ever, with over 15,000 participants from around 150 countries. By comparison, the female participation at WSIS was 41 per cent in 2019 and 40 per cent in 2018. At the same time, going online dramatically reduces the carbon footprint inherent in major international meetings.

ITU-T plans to establish a methodology for estimating greenhouse gas emissions for virtual meetings and events – along with the emissions avoided in comparison with physical events. Estimates must take into account all emissions,

ITU virtual meeting attendees
Credit: ITU

including those from data centres, networks and devices, as well as the reduced footprint for transport and meeting venues.

With almost all official travel at a standstill in 2020, ITU reduced its emissions from mission flights by 86 per cent or more than 1,600 tonnes of CO_2, compared with 2019.

While virtual meetings let us keep working amid the pandemic, the question remains how far the virtual event format will endure post-COVID. The success of such meetings since early 2020, combined with the need to reduce emissions long-term, suggests a predominantly virtual or hybrid model could be here to stay. Concerns remain, however, about how to facilitate an unhindered decision-making process at major statutory meetings.

Digital technologies can serve as crucial building blocks for a greener, more sustainable, more connected world. We must make the most of their potential to help cut emissions, maintain climate-safe connectivity and build back better for the future.

Waste

2030 Objective

Ensure that no solid waste from United Nations facilities, operations or activities is causing pollution or other harm to the environment and local populations by avoiding the release of toxic substances into the air, soil and water bodies and preventing adverse impacts on biodiversity and ecosystems.

To achieve the objective, each entity will look at aspects such as: non-hazardous waste, hazardous waste and/or single-use plastic.

2020 UN SYSTEM DATA

AVERAGE WASTE GENERATED

396 kg/person for the whole UN System

184 kg/person for the UN System excluding Peacekeeping and Special Political Missions

(Peacekeeping and Special Political Missions have a higher waste generated average than other entities as their waste generation includes living quarters)

258,000 personnel in 50 entities are included in this system-wide data

These percentages are subject to significant variations year-to-year due to specific circumstances, such as large construction projects. A detailed table with each entity's reported 2020 data is available on

www.greeningtheblue.org

DISPOSAL ROUTES OF WASTE GENERATED BY THE UN SYSTEM

- **4%** Other/Unknown
- **6%** Landfill
- **10%** Reuse, Recycle, Composting or Energy Recovery
- **12%** Open Incineration
- **13%** Closed Incineration
- **55%** Controlled Disposal
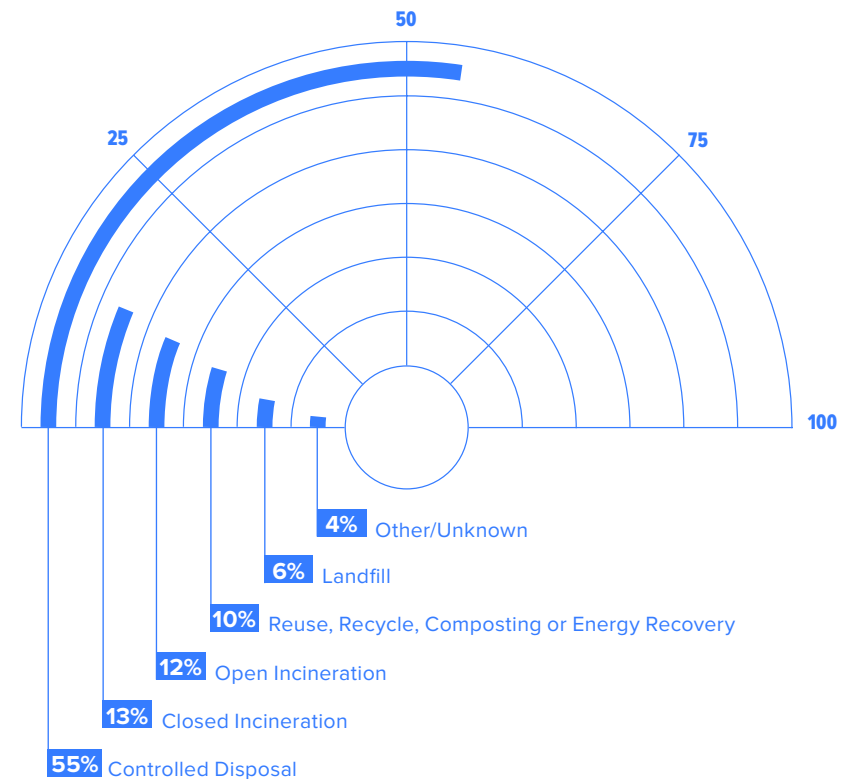
UNISFA's Commitment to the Environment Through Waste Management

Crushed cans at the UNIFSA Waste Management Yard.
Credit: UNISFA
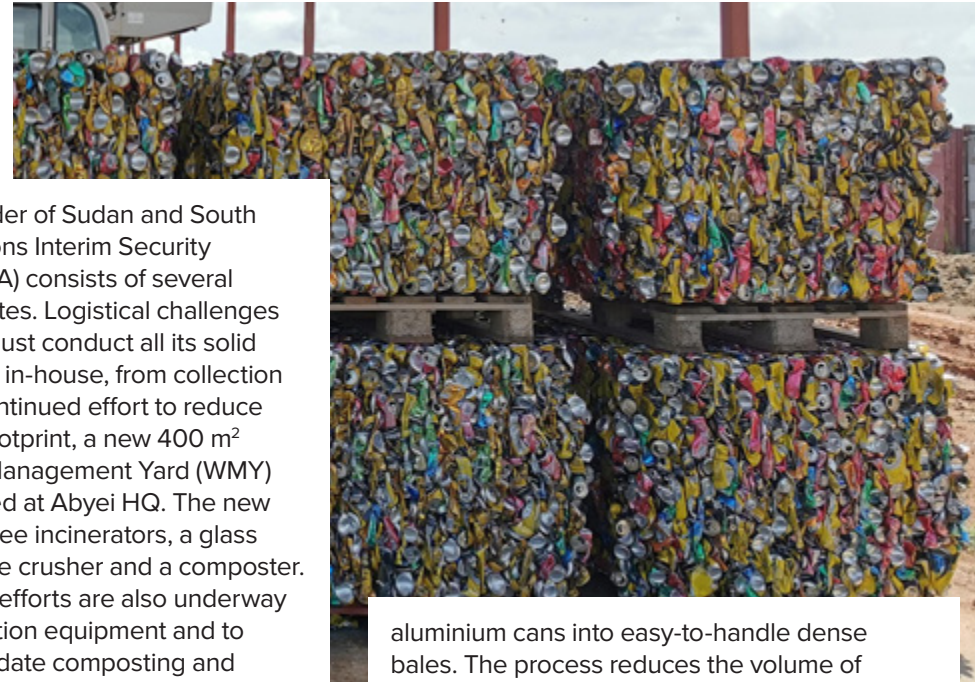
Located on the border of Sudan and South Sudan, United Nations Interim Security Force Abyei (UNISFA) consists of several very remote team sites. Logistical challenges mean the mission must conduct all its solid waste management in-house, from collection to disposal. In its continued effort to reduce its environmental footprint, a new 400 m^2 centralized Waste Management Yard (WMY) has been established at Abyei HQ. The new WMY consists of three incinerators, a glass crusher, baler, rubble crusher and a composter. At other team sites, efforts are also underway to upgrade incineration equipment and to expand and consolidate composting and recycling operations.

The establishment of these facilities has resulted in an increase in mission recycling rates, approximately 40 per cent for reporting year 2020 and supports the minimization of the mission's environmental footprint by reducing the amount of waste sent to landfills and combustion facilities conserving resources and preventing pollution.

The glass bottle crusher reduces the volume of segregated glass by up to 80 per cent and has resulted in glass recycling rates of over 90 per cent for the mission. The subsequent recycled material can then be reused on-site in construction, as a sand substitute or landscaping. The baler compacts segregated aluminium cans into easy-to-handle dense bales. The process reduces the volume of cans with a compaction ratio of 8 to 1, which maximizes storage and transportation efficiency.

Further waste management upgrades are planned for the mission, including the continued establishment of the Smart Camp concept through the FRIM programme– i.e. Field Remote Infrastructure Monitoring, which was originally piloted at UNISFA in early 2019. The mission will continue its commitment to maximizing and improving resource services by utilizing smart infrastructure and equipment such as weighing scales and composter monitors. This will allow automated reporting - through the digital platform - on the quantities of each type of solid waste collected and recycled. Which ultimately improves reporting accuracy and supports sustainable mission practices.

Air Pollution
in the lower and upper atmosphere

2030 Objective

Ensure that United Nations premises and fleet do not contribute to or exacerbate local air quality issues in both urban and remote community settings.

To achieve the objective, each entity will look at aspects such as: fossil fuels, refrigeration and air conditioning and/or hydrofluorocarbons.

NOTE:

In the *Strategy for Sustainability Management in the United Nations System 2020-2030, Phase I: Environmental Sustainability in the Area of Management*, Air Pollution as a category of environmental impacts included pollution in the lower and upper atmosphere. For this reason, very different aspects such as fossil fuels and Ozone Depleting Substances were associated with it. Further refinements and development of a methodological approach to this area are ongoing.
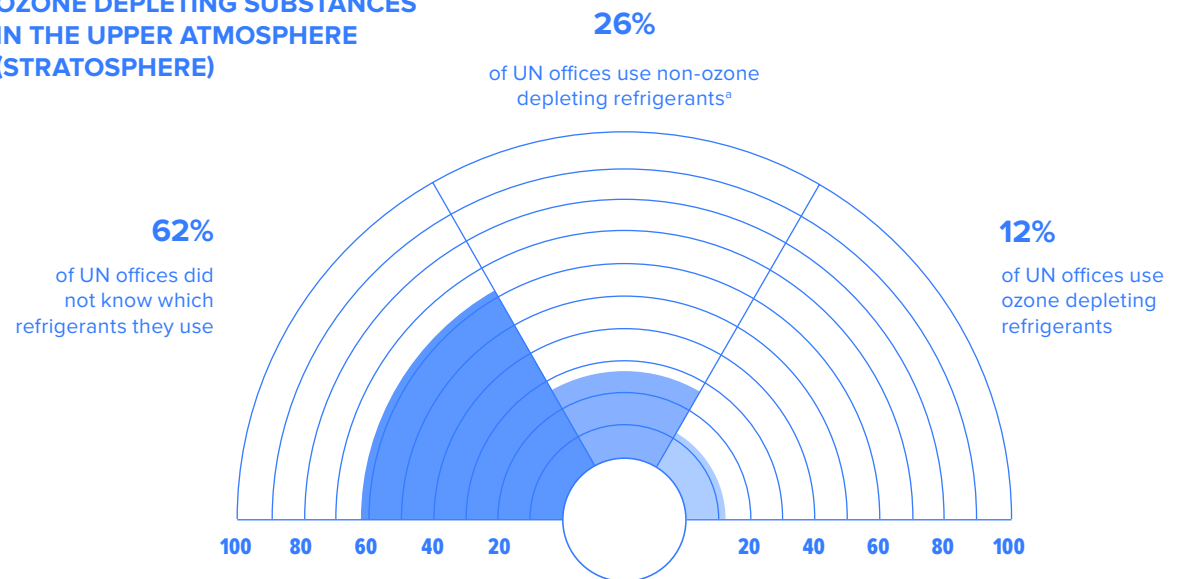
2020 UN SYSTEM DATA

AIR POLLUTANTS IN THE LOWER ATMOSPHERE (GROUND-LEVEL)

The UN system utilized in 2020 **~350 million litres of fuel** to run its vehicle fleets as well as its facilities' generators and boilers.

The UN system has begun to look at its data on fuel quantity and quality for fleet and its impacts on local air quality to understand what impacts these have on air pollution and what measures are necessary to reduce such impacts.

315,000 personnel in 54 entities are included in this system-wide data

OZONE DEPLETING SUBSTANCES IN THE UPPER ATMOSPHERE (STRATOSPHERE)

26% of UN offices use non-ozone depleting refrigerants[a]

62% of UN offices did not know which refrigerants they use

12% of UN offices use ozone depleting refrigerants

100 80 60 40 20   20 40 60 80 100

a Offices that use non-ozone depleting refrigerants include the 2 per cent of offices that use low Global Warming Potential (GWP) refrigerants.

Malawi Country Office Team with their new e-cookers.
Credit: WFP/Photo Archive

WFP – Saving Lives, Changing Lives…and Tackling Air Pollution

World Food Programme (WFP) is committed to ensuring its efforts to change lives and save lives have minimal impact on the environments that local communities rely on, including the air they breathe.

Here are a few examples of how WFP responds to the UN's call to limit air pollution.

With the people served…

In 2020, WFP provided 1.2 million people with innovative ways to reduce the potential health impacts of air pollution from cooking. In Malawi for example, over 90 per cent of the population depend on wood and charcoal for fuel. Charcoal cooking is strongly linked to respiratory disease and contributes to deforestation. In response, WFP is trialling solar-powered electric cookers that use solar energy instead of biomass, providing environmental and health benefits, saving time and money, and reducing greenhouse gas and black carbon emissions from cooking itself to zero.

On the roads

Over the past 15 years, greening WFP's passenger fleet has become a core priority. Shifting to smaller vehicles with 30 per cent less fuel consumption, providing nearly 5,000 WFP and other UN drivers with eco-driving training and working to optimise its passenger fleet are just a few actions WFP has taken to reduce air pollution. The organization has implemented award-winning applications – through the UN Booking Hub – to promote carpooling and improved planning to reduce particulate and greenhouse gas emissions related to staff transportation.

… and at work

WFP Engineers propose energy-efficient equipment and renewable energy systems that save thousands of tonnes of emissions per year from WFP facilities. Meanwhile, a global Environmental Management System aims to limit WFP's environmental impact, including air pollution, across a range of management functions. Core considerations include cleaner energy, elimination of ozone-depleting gases, sound waste management, sustainable procurement and improved staff awareness.

Water and Wastewater

2030 Objective

Ensure water conservation and avoid the release of untreated wastewater into the environment.

To achieve the objective, each entity will look at aspects such as: water management and/or wastewater management.

38 m³

per UN personnel per year

256,000 personnel in 51 entities
are included in this system-wide data

A detailed table with each entity's reported 2020 data is available on
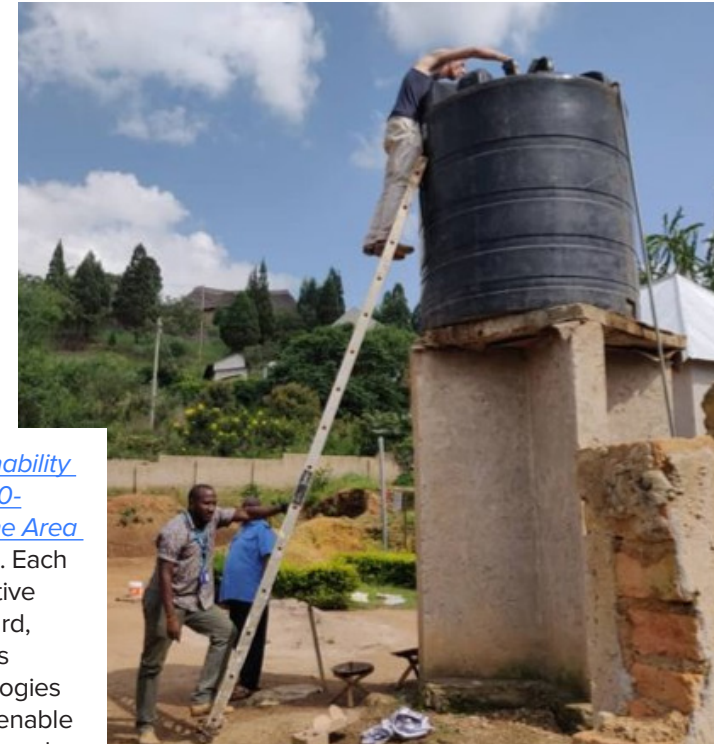
www.greeningtheblue.org

UNHCR's Improved Water Management

Installing water monitoring equipment
Credit: UNHCR

One of the objectives of the *Strategy for Sustainability Management in the United Nations System 2020-2030, Phase I: Environmental Sustainability in the Area of Management* is to ensure water conservation. Each entity is encouraged to work towards this objective by improving its water management. In this regard, United Nations High Commissioner for Refugees (UNHCR) has piloted remote monitoring technologies (Internet of Things) in several refugee camps to enable the monitoring of water usage and consumption and long-term aquifer level monitoring. The technology had a special impact on women and girls, increasing water availability, reducing water shortages and queuing times, and generally providing a more reliable service. The technology also contributed to water conservation by helping detect water network leaks and allowing timely water pumping based on actual needs; hence, reduced wastage. It is estimated the reduced water wastage is greater than millions of litres per year. By 2020, this innovative water monitoring system was installed in five countries, Uganda, Kenya, United Republic of Tanzania, Bangladesh and Iraq and is being scaled up in 2021 to potentially 15 countries, through funds from the European Commission Horizon Prize for innovation in humanitarian settings.

UNHCR's effort towards proper water management is not only limited to its refugee camps but also extended to its internal operations. For instance, the Environmental Management System (EMS) which has been established in UNHCR Jordan Operation since 2019, identified high water consumption as one of the major sources of negative environmental impacts in the Amman Branch Office. Subsequently, in 2020, UNHCR Jordan replaced all traditional water taps with automated ones, which resulted in a reduction of the quantity of water used in office buildings and a 41.8 per cent reduction, equal to 9,052 Jordanian dinar/ US$12,785.30, on municipality supplied water bills.

Biodiversity

2030 Objective

Avoid adverse impacts on biodiversity from United Nations' facilities, operations and activities.

To achieve the objective, each entity will look at aspects such as: biodiversity conservation.

Initial work on biodiversity in 2020 was carried out in support of the UN Common Approach to Biodiversity, adopted in May 2021. "The Common Approach" provides an overarching framework for collective action and joint delivery on biodiversity. In the coming year, the UN system will further elaborate indicators on biodiversity and begin a piloting process for entity-level reporting on the four management areas covering:

Procurement:

incorporating biodiversity considerations in existing sustainable procurement training available to procurers and requisitioners in order to further reduce barriers to sustainable procurement. Developing tools quantifying the impacts of a product on biodiversity in all lifecycle stages to facilitate mainstreaming of sustainable procurement.

Operations & Facilities:

making use of the mitigation hierarchy to inform areas of intervention by assessing ecological conditions on-premises and ecological impacts as a result of proposed activities. Considering nature-based solutions as priorities for any ecological enhancement to offset ecological impacts.

Staff Awareness:

improving communication on the relevance of biodiversity in existing resources, including sustainability awareness training and report on it as part of the staff awareness survey.

Meetings and Events:

incorporating biodiversity considerations in existing efforts to greening events, including communicating and raising awareness on the impacts of events on biodiversity. Best practices such as sourcing food locally, providing meat-free catering options and reducing waste and plastic disposal can be piloted and reported as part of a wider environmental sustainability effort.
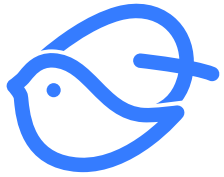
UNESCO Promotes Biodiversity and Urban Gardening in its Own Premises

UNESCO's vegetable and biodiversity garden at HQ in Paris

Credit: UNESCO/ Fabrice Gentile
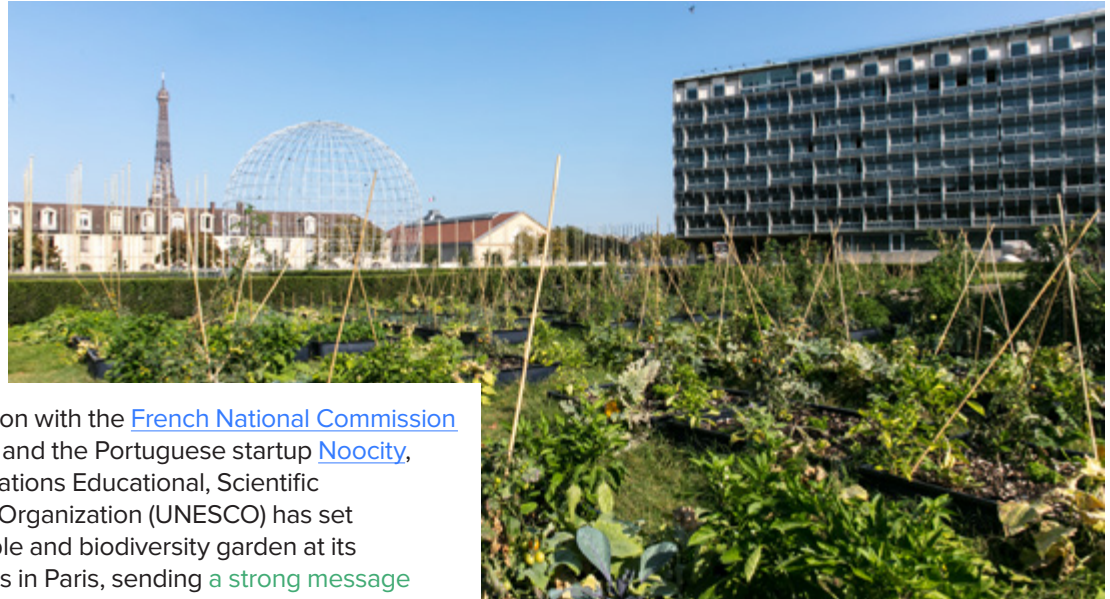
In collaboration with the French National Commission for UNESCO and the Portuguese startup Noocity, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has set up a vegetable and biodiversity garden at its Headquarters in Paris, sending a strong message about the Organization's own commitment to biodiversity and sustainable development.

The garden is composed of two complementary projects that represent a coherent spatial entity. One of the projects, designed by a renowned French landscape planner, epitomises the tryptic Nature-Art-Education and targets young generations with a mostly pedagogical aim. With the support of several French and international partners, the garden hosts a great variety of plants species and herbs - from more than 40 countries, representing all world regions - which can be identified with a QR code. Educative signposts give information on pollination and urban agriculture. The smart automatic watering of the garden, which works with a humidity sensor and a drip irrigation system, reduces water consumption to its strict minimum. Staff are invited to take a break amid this laboratory of biodiversity by making use of the available deckchairs and pallet benches.

The second project, promoted in collaboration with the City of Paris to bring urban farming to UNESCO, consists of low-tech and sustainable grow beds to cultivate vegetables, aromatic herbs and small fruits. UNESCO staff can subscribe to receive regular vegetable baskets and participate in gardening workshops. In the 2020 season, 50 colleagues benefited from 450 baskets with a total of over 1,100 kg of tomatoes, strawberries, eggplants, courgette, leek, carrots and other vegetables and herbs distributed, and three gardening workshops could be held.

In the future, it is planned to organize regular on-site pedagogical workshops on sustainable development for schools, NGOs, UNESCO staff, Member State delegates and other groups, focusing on life sciences education, sustainable food, sustainable cities, biodiversity and climate change.

VII. Mainstreaming in Management Functions

In addition to environmental impact areas, the *Strategy for Sustainability Management in the United Nations System 2020-2030, Phase I: Environmental Sustainability in the Area of Management*, identifies environmental governance as an overarching approach and five management functions to mobilize to reach the *Strategy's* objectives. These functions are: Procurement, Human Resources, Facilities Management, Events and Information & Communications Technology. These management functions are included in the *Strategy* in recognition "of the need to mainstream the environment across key management functions of the United Nations system" (p. 19).

For each of the management functions, the *Strategy* establishes a UN system-wide objective to be achieved by 2030. As with the environmental impact areas, how best to achieve these objectives is specific to each entity.

As the *Strategy* was endorsed in 2019, this edition of the *Report* is the first to include data on the Procurement and Human Resources (training efforts on environmental awareness) management functions. As well, the criteria have been updated for environmental management systems. In the coming years, data on the remaining management functions will be included as data gathering methods for each are refined.

This section highlights one case study for Procurement and one for Human Resources from a UN entity that successfully made improvements in 2020 in the respective area.

Environmental Governance

Environmental Governance is a foundational commitment in the *Strategy for Sustainability Management in the United Nations System 2020-2030, Phase I: Environmental Sustainability in the Area of Management*. Environmental governance includes aspects such as: system-wide coordination, environmental management systems (EMS), environmental and social safeguards, performance management systems, resource mobilization and environmental reporting.

This year, in further alignment with the *Strategy*, the UN system's efforts on environmental governance are monitored and reported in a new manner. Reporting on environmental and social safeguards in policies, projects and programmes is now included. Reporting and evaluation of EMS is now further aligned with the *Strategy* and the requirements of the international standard on environmental management, ISO 14001 :2015[1]. The updated criteria establish a new baseline of the UN system's performance, limiting the ability to compare progress to pre-2020 data. Raising the ambition on environmental governance is possible because of the past effort and success by UN entities and their Focal Points through engagement on Greening the Blue.

Environmental Management Systems

An EMS provides structure and helps organizations coordinate action to continuously and systematically improve environmental performance by reducing the negative impacts and enhancing the positive impacts from UN entities' facilities and operations. An EMS also provides a structure for managing and reducing risks and the organization's eventual environmental impacts.

The *Strategy's* target is for all UN entities to implement an EMS by 2025. The recommended approach is the international standard ISO 14001.

2020 UN SYSTEM-WIDE PERFORMANCE [2]

ENVIRONMENTAL MANAGEMENT SYSTEM

0	**2**	**13**	**26**	**14**
entities exceed	entities meet	entities approach	entities do not meet	entities did not respond

267,000 personnel in 41 entities reported their 2020 data in this area. Fourteen entities did not report in this area but are included in the system-wide reporting as they represent a significant portion of the UN system-wide performance.

ENTITIES' EMS STATUS

Meets **4%**
Approaches **24%**
Does not meet **47%**
No response **25%**

100 · 75 · 50 · 25
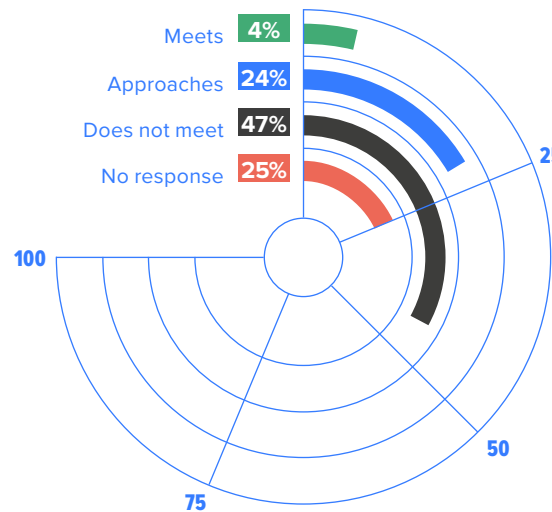
ENVIRONMENTAL AND SOCIAL SAFEGUARDS AND STANDARDS IN POLICIES, PROJECTS AND PROGRAMMES

Yes **35%**
Partial or in progress **24%**
No **16%**
No response **25%**

100 · 75 · 50 · 25

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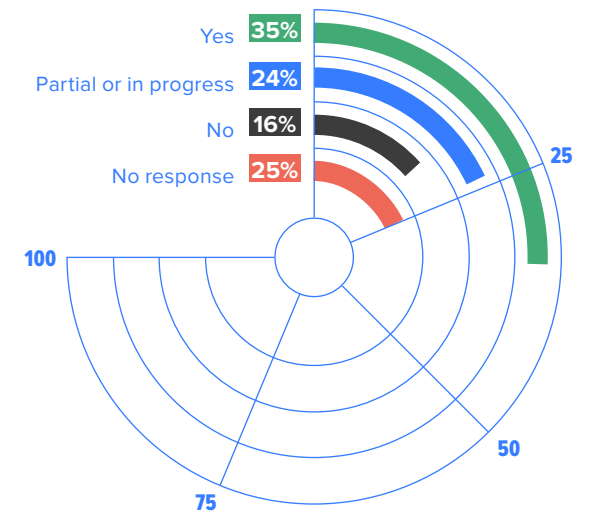
1   For more information on definitions and the data analysis criteria, please see the methodology section.

2   Included for analysis in this section are the 55 UN entities listed in the *Environmental Performance Dashboard* Annex and the *UN Entities' Reported 2020 Data Tables*. The amalgamated category of Other Secretariat entities is excluded because individualized results are unavailable for this category of Secretariat entities.

Procurement

2030 Objective

The *Strategy for Sustainability Management in the United Nations System 2020-2030, Phase I: Environmental sustainability in the area of management* has identified procurement as one of the key functions in support of the UN sustainability journey. The *Strategy* directs entities to systematically integrate sustainability considerations into procurement. This means entities are to: develop a sustainable procurement plan; define a list of phase-outs in line with the objectives of the *Strategy*; and integrate environmental considerations into supply chain risk evaluation and monitoring.

Background

Procurement policies and criteria send to the market indications of what matters for organizations. The *Strategy* signals to the market that the UN system, as a whole, is aligning with the Sustainable Development Goals. Via its procurement function, the UN system interacts with different markets and on different time horizons, for and on behalf of different population groups – which guide the specific application of sustainable procurement approaches and priorities.

Many UN entities are engaging in sustainable procurement practices and look at integrating the three sustainability pillars – environment, society and economy – in their procurement policies and ultimately in their tenders. In concrete terms, this can include requirements for resource efficiency, gender responsiveness, accessibility and other topics in line with the Sustainable Development Goals. Collective progress on the efforts made so far is reported on the UN Global Marketplace website.

In the UN system, sustainable procurement is defined as:

> practices [that] integrate requirements, specifications and criteria that are compatible and in favour of the protection of the environment, of social progress and in support of economic development, namely by seeking resource efficiency, improving the quality of products and services and ultimately optimizing costs.[1]

Since 2008, the procurement volume of the UN system has increased from US$13.6 billion to US$22.3 billion in 2020[2], adding evermore leverage to the procurement function to influence markets and move them into more sustainable directions. At the same time, the UN continued to enhance its capacity to do sustainable procurement through the development of policies and guidance material, the exchange of best practices and capacity-building.

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1 High Level Committee on Management Procurement Network, Sustainable Procurement Statement, 2009, p1.

2 The procurement volumes are not directly comparable as the reporting organizations and reporting methodology have changed between 2008 and 2020.

2020 UN System Data

The data published in the *Greening the Blue Report 2021* is obtained from the [2020 Annual Statistical Report on UN Procurement (ASR)](#). The ASR provides an overview of the procurement of the UN system since 1984. Since 2008, it also publishes information on the progress of sustainable procurement in the UN system making it possible to draw trends. The data is obtained through a voluntary questionnaire that is shared with all UN organizations reporting to the ASR. Since 2018, the 39 UN organizations that submitted procurement transaction data to the ASR have voluntarily shared information on their sustainable procurement practices. Their collective purchasing in 2020 was over US$20 billion.

For the 39 UN organizations that submitted data to ASR[1]:

The adoption or planned adoption of sustainable procurement policies by UN entities increased from

59% in 2019 to
85% in 2020.

The adoption of measurable sustainability targets increased from

36% in 2019 to
41% in 2020.

With regards to the type of sustainability considerations addressed,

92%

of reporting entities stated they addressed environmental sustainability aspects.

Social and economic sustainability considerations are reportedly addressed by

80%

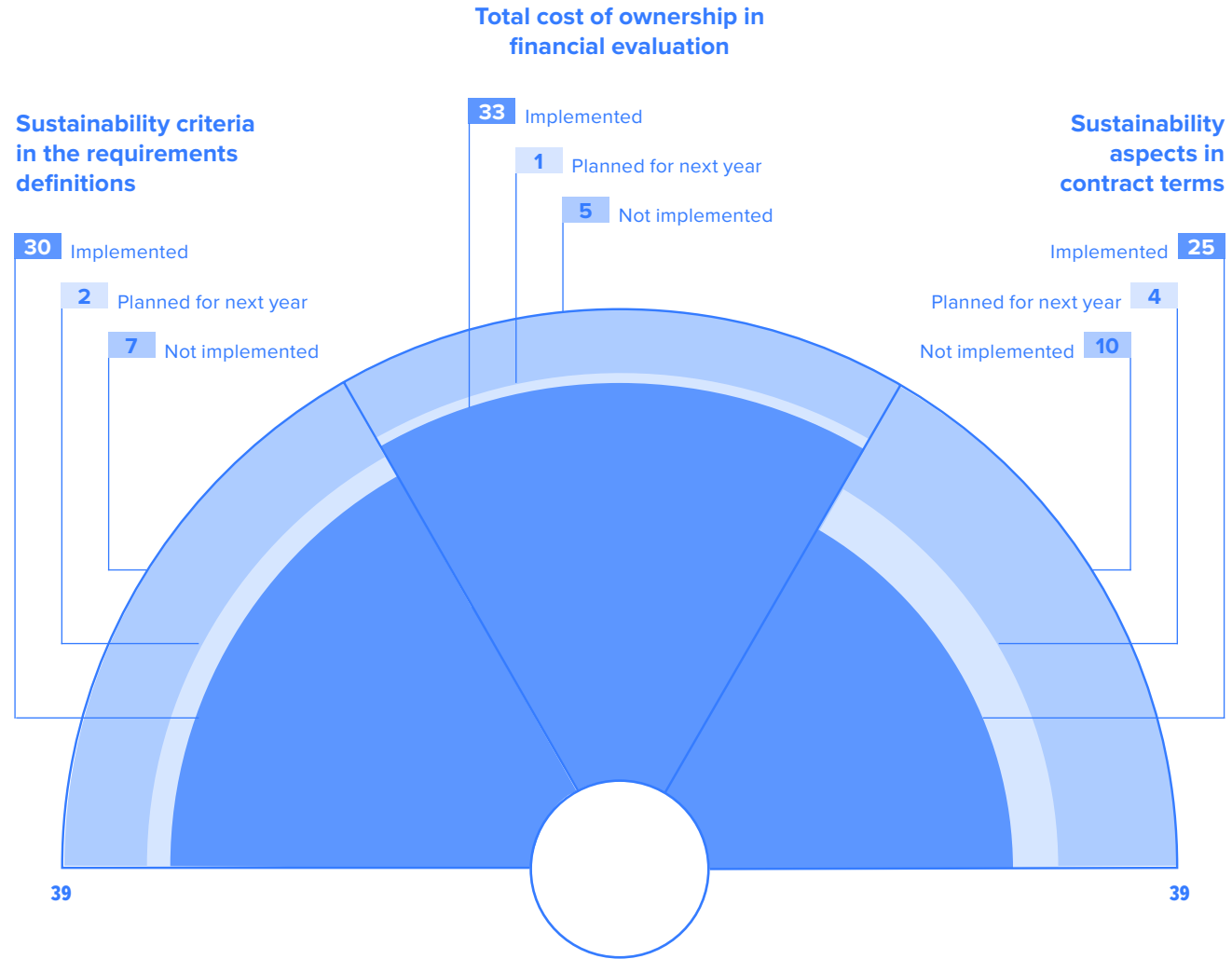of reporting organizations each.

1   Data available from the 2020 Annual Statistical Report on UN Procurement (ASR).

INTEGRATION OF SUSTAINABLE PROCUREMENT IN THE PROCUREMENT PROCESS, 2020

2020 UN System Data

For the 39 UN organizations that submitted data to ASR[1].

Sustainability criteria in the requirements definitions

30 Implemented

2 Planned for next year

7 Not implemented

39

Total cost of ownership in financial evaluation

33 Implemented

1 Planned for next year

5 Not implemented

Sustainability aspects in contract terms

Implemented **25**

Planned for next year **4**

Not implemented **10**

39

1 Data available from the 2020 Annual Statistical Report on UN Procurement (ASR).

FAO El Salvador office personnel
Credit: FAO El Salvador

Sustainable Procurement Criterion Used for FAO El Salvador Office Remodel

During 2020, office renovations in Food and Agricultural Organization (FAO) El Salvador were taken as an opportunity to manifest the environmental ethic and passion of the office, transforming the office into a regional leader for environmental sustainability.

Taking the unique opportunity offered by the renovations, a free childcare centre was integrated into the building. Affordable childcare is a key driver of gender equality and the accomplishment of the Sustainable Development Goal (SDG) (5). This is due to the prevalence of gendered divisions of labour around the globe. Indeed, this new measure will assist working parents at FAO El Salvador to work in a stress-free environment knowing their children are safe.

For the project, the services of an architectural firm, B100, specialized in innovation and technology, were procured to develop the renovations using comprehensive sustainability criteria that targeted energy efficiency, water consumption, waste generation and staff awareness.

Procurement practices followed FAO's Sustainable Procurement Policy and were further augmented to ensure the eventual attainment of the LEED certification, which the office is diligently working towards. Specifically, purchasing processes were carried out to align with the targets of the SDGs, including Affordable and clean energy (7) and Climate action (13). This means that goods were acquired not only based on function and price but also sustainability parameters such as its origins,

environmental impact, occupant health, life cycle and end-of-life disposal and improvement of both energy efficiency and waste utilization.

The new office spaces were designed to maximize energy efficiency, with more natural lighting and ventilation, LED lighting and Energy Star rated equipment. Moreover, a solar power system has also been installed, producing around 1,686 kilowatt-hours (kWh) per month and offsetting 3 tonnes CO_2eq annually.

The installation of water-saving appliances is expected to result in a 30–60 per cent reduction in water usage, corresponding to around 17,280 litres of water saved annually. Additionally, a water separation scheme ensures that safe drinking water is provided.

In recognition of these and other outstanding measures, the office design has garnered a nomination for the CASALCO award for sustainable construction, which honours green building design projects that serve as an inspiration for sustainable construction throughout El Salvador.

Human Resources

2030 Objective

Environmental management is integrated with existing United Nations capacity-building and accountability frameworks. This objective is supported by the commitment to increased understanding and capacity among United Nations staff to walk the talk. Capacity-building, therefore, plays a critical role in transitioning operations and management for a more sustainable UN.

To achieve this, each entity will deliver training, integrate requirements for environmental improvements into senior-level accountability and integrate the environment into core competencies.

Therefore, for the 2021 edition, the *Greening the Blue Report* introduces indicators on environmental training and awareness of UN personnel and performance management systems of senior management. The inclusion of this indicator responds to the *Strategy for Sustainability Management in the UN System 2020-2030 Phase I: Environmental Sustainability in the Area of Management*. Further, it complements the recent launch of the updated *Greening the Blue Tutorial* and sets a new baseline for reporting progress on training in future reports.
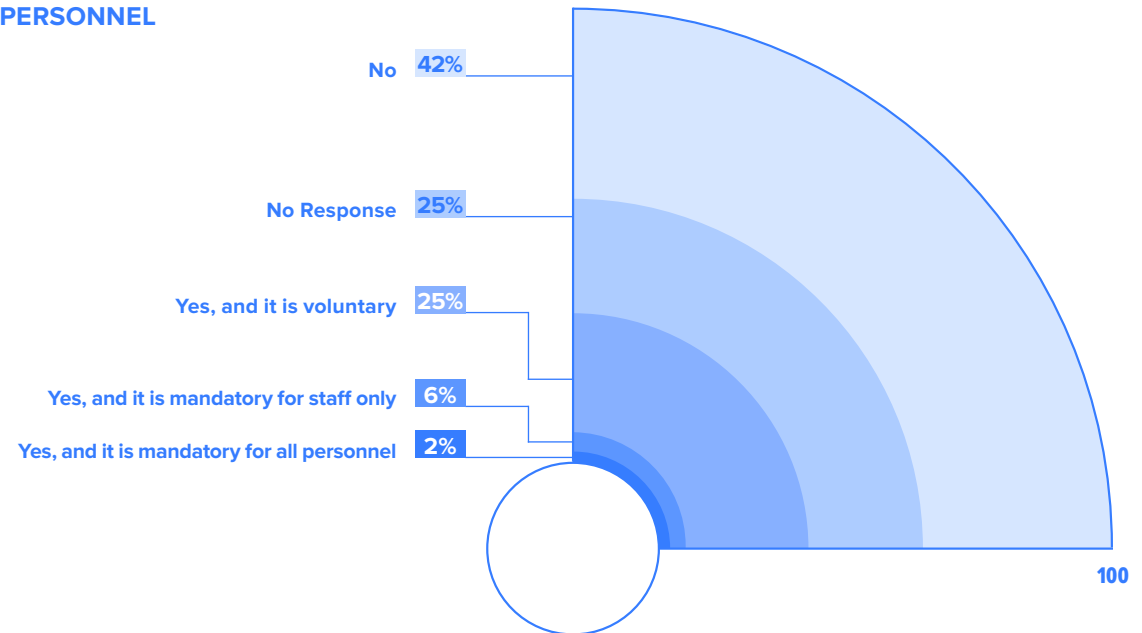
2020 UN System Results[1]

267,000 personnel in 41 entities

reported their 2020 data in this area. Fourteen entities did not report in this area but are included in the system-wide reporting as they represent a significant portion of the UN system-wide performance.

In 2020, one entity mandated environmental training for all personnel; three mandated training for staff; 14 provided voluntary training[2]; 23 do not yet require or provide training and 14 entities did not respond to the survey.

ENVIRONMENTAL TRAINING FOR PERSONNEL

Category	Percent
No	42%
No Response	25%
Yes, and it is voluntary	25%
Yes, and it is mandatory for staff only	6%
Yes, and it is mandatory for all personnel	2%

100

1 Included for analysis in this section are the 55 UN entities listed in the *Environmental Performance Dashboard* Annex and the *UN Entities' Reported 2020 Data Tables*. The amalgamated category of Other Secretariat entities is excluded because individualized results for this category of Secretariat entities are unavailable.

2 Included in this number is one entity that has mandatory training for a selected subset of staff.

2020 UN System Data

The majority of training subjects covered by the respondents were:

- General Environmental Behaviour
- Greenhouse Gas Emissions
- Waste Management, and
- Environmental Management Systems.

These were followed by:

- (Sustainable) Facilities Management,
- Sustainable Procurement, and
- Water & Wastewater.

ENVIRONMENTAL TRAINING SUBJECTS

Subject	Value
General environmental behaviour for staff awareness	15
Greenhouse Gas Emissions	13
Waste management	12
Environmental Management Systems	11
Facilities management	7
Sustainable procurement	7
Water and Wastewater	6
Air Pollution (e.g. Ozone, short-lived climate pollutants)	4
Sustainable events	4
Sustainable/Green Information and Communication Technology (ICT)	4
Other (Entity-specific training)	4
Biodiversity conservation	2

Raising Staff Awareness: A one-UN quiz contest for World Environment Day 2020

Economic and Social Commission for Asia and the Pacific (ESCAP) Bangkok organized a one-UN, fun and informative online quiz contest to raise awareness of colleagues and families around World Environment Day (WED) 2020's theme of biodiversity. A total of 21 inter-agency teams, 90 team members and 283 online spectators participated.

The idea to create a one-UN quiz to raise staff awareness came from the need to rethink engagement practices and move away from more traditional communication approaches to ensure that colleagues acquire important information while having fun. This is especially true when in-person interaction is no longer possible. In the COVID-19 era, online events concurrence has become higher than ever and colleagues often feel overwhelmed. Therefore, the new engaging format was perceived as a different way to interact, network and learn that connected people at a more personal and informal level.

The inter-agency greening team leveraged internal knowledge and official biodiversity reports to come up with interesting quiz questions related mostly to the Asia and Pacific region. The encouragement to form one-UN teams with members from different UN entities fully reflects the spirit of the Environmental Management System in Bangkok that is owned by all agencies at the UN Compound.

The most diverse one-UN team was rewarded together with the two top performers. Prizes kept the biodiversity cause at the core, awarding the winners with the opportunity to plant a tree and monitor its growth online. All participants learned about actions that individuals can take to tackle biodiversity in their daily lives, as well as facts about the planted trees contribution to biodiversity and CO_2 absorption over a lifetime.

Fun and informative quizzes that award prizes which further awareness of the topic, like this one on biodiversity for WED 2020, help ESCAP in meeting the commitment from the *Strategy for Sustainability Management in the UN System 2020-2030 Phase I: Environmental Sustainability in the Area of Management* to increase understanding and capacity among United Nations staff to 'walk the talk.'

The participation and environmental sustainability awareness-building of the quiz was so successful that ESCAP Bangkok created another one-UN quiz for WED 2021 and plans to do so for future WEDs.
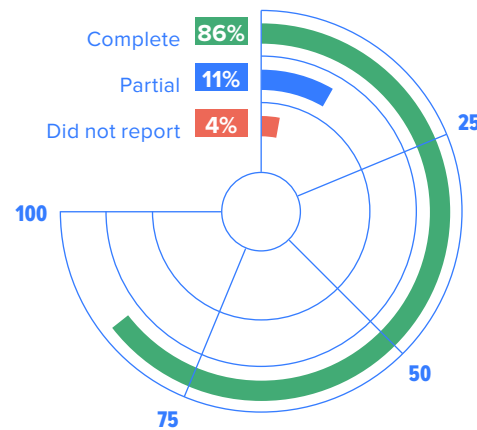
Reporting Completeness by Entity

A commitment to tracking and reporting on the environmental impact areas and management functions is a key aspect of the *Strategy for Sustainability Management in the United Nations System 2020-2030, Phase I: Environmental Sustainability in the Area of Management*. Therefore, part of the performance of each entity documented in the *Greening the Blue Report* is their level of reporting completeness.

The methodologies for and the yearly collection of data for the *Report* is the result of close UN inter-agency coordination. The UNEP Sustainable UN team works with a network of officially appointed Sustainability Focal Points in each reporting entity. The Focal Points are responsible for coordinating the data collection process throughout their respective entity and keeping methodologies and measures up-to-date and harmonized with UN system-wide guidance. To this end, Focal Points (and their colleagues in various country offices) are trained and updated every year on the data collection methodology for the *Report*. Once the data collection is finalized, the UNEP Sustainable UN team reviews and collates results for the *Greening the Blue Report*.

2020 UN SYSTEM RESULTS[1]

GREENHOUSE GAS EMISSIONS

Complete **86%**
Partial **11%**
Did not report **4%**

25
50
75
100

WASTE

Complete **79%**
Partial **11%**
Did not report **11%**

25
50
75
100

Complete: Entity reported greenhouse gas emissions for all personnel with the defined boundaries for the reporting year.

Partial: Entity reported greenhouse gas emissions for a percentage of total personnel for the reporting year or reported on emissions from the previous year.

Did not report: Entity did not report greenhouse gas emissions.
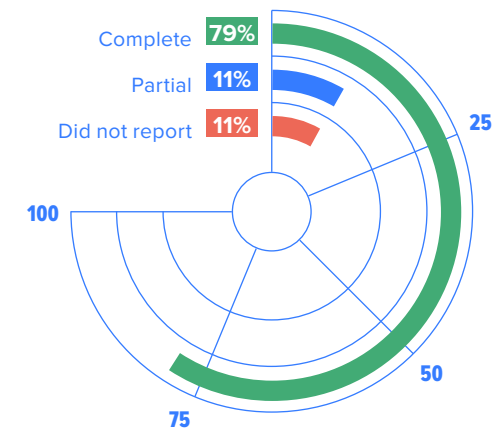
Complete: Entity reported quantitative data for some or all its waste for the reporting year.
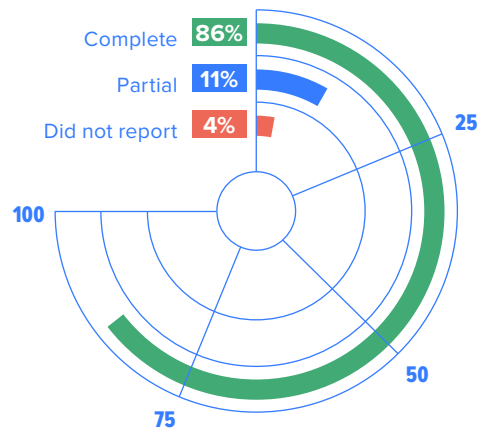
Partial: Entity reported qualitative data for the reporting year or reported quantitative data from previous years.

Did not report: Entity did not report waste data.

1 Percentages are rounded to the nearest integer, as a result they may not total 100.

2020 UN SYSTEM RESULTS[1]

AIR POLLUTION

Complete **86%**
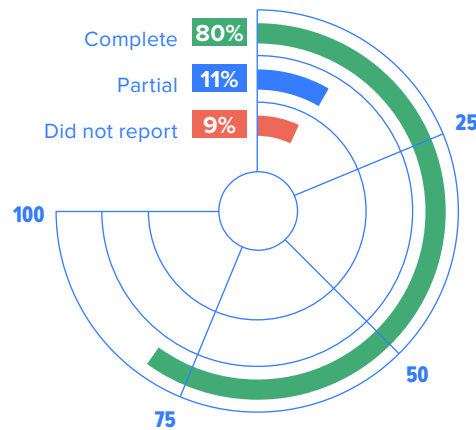Partial **11%**
Did not report **4%**

25
100
50
75

Complete: Entity reported air pollution data for all personnel with the defined boundaries for the reporting year.

Partial: Entity reported air pollution data for a percentage of total personnel for the reporting year or reported on air pollution from the previous year.

Did not report: Entity did not report air pollution data.

PROCUREMENT

Procurement is not included under Reporting Completeness as data for that management function is taken from the 2020 Annual Statistical Report on UN Procurement (ASR), which uses its own methodologies to gather and analyse data from UN entities.

WATER

Complete **80%**
Partial **11%**
Did not report **9%**

25
100
50
75

Complete: Entity reported quantitative data for some or all its water for the reporting year.

Partial: Entity reported qualitative data for the reporting year or reported quantitative data from previous years.

Did not report: Entity did not report water data.

The UN system-wide overall reporting results for greenhouse gas emissions, waste, air pollution and water were calculated based on the number of entities, 56, listed on the *UN Entities' Reporting Completeness - 2020 Data* table. The table is available on www.greeningtheblue.org and provides entity-specific results.

1 Percentages are rounded to the nearest integer, as a result they may not total 100.

ENVIRONMENTAL GOVERNANCE AND HUMAN RESOURCES

Complete **75%**
Did not report **25%**

25
100
50
75
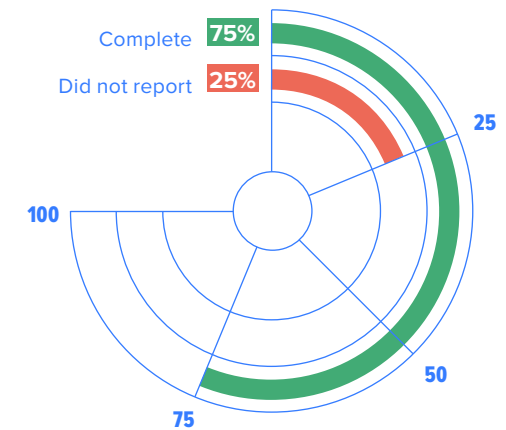
Complete: Entity provided information on Environmental Governance and Human Resources.

Did not report: Entity did not submit information on Environmental Governance nor Human Resources.

Environmental Governance and Human Resources are grouped because data on these two areas were submitted jointly via a survey. Entities had to complete the entire survey to submit any data, which is why 'partial' is not a category for these areas.

Included for analysis in this section are the 55 UN entities listed in the *UN Entities' Reporting Completeness - 2020 Data* table. The amalgamated category of Other Secretariat entities is excluded because individualized results for this category of Secretariat entities are unavailable.

VII. Methodology

Greenhouse Gas Emissions Methodology and Air Pollution Data

The October 2007 decision of the Chief Executives Board set the scope of the UN greenhouse gas (GHG) inventory to emissions from facility operations and travel that can be influenced by management-level decisions. Therefore, the inventory covers emissions under the financial and/or operational control of the UN (the details of how each entity determines the boundaries of its financial and/or operational scope can be found in their individual Inventory Management Plans). Following the GHG Protocol, the inventory covers all Scope 1 and Scope 2 emissions. Additionally, it covers Scope 3 business travel emissions due to the major role of travel in UN operations.

The inventory includes the six GHGs originally covered by the Kyoto Protocol: CO_2, CH_4, N_2O, HFCs, PFCs and SF_6, and all refrigerants with a global warming potential (GWP). Total GHG emissions are reported as an aggregate using the common comparable unit of carbon dioxide equivalents (CO_2eq) - the mass of each GHG multiplied by its GWP compared to that of CO_2.

Collection, estimation and reporting of the GHG emissions are undertaken through the following tools:

- Formatted files for data collection, available in English, French and Spanish;
- A stand-alone air travel emissions calculator developed by the International Civil Aviation Organization (ICAO);
- A web portal, where the data files can be uploaded for submission;
- A calculator developed by Sustainable UN to generate emissions results; and,
- In addition to the above tools, some entities have developed their own emissions calculators.

For the Air Pollution section of the *Report*, data was derived by extracting information on Ozone Depleting Substances provided through the GHG inventory.

The percentage of Renewables provided in the Executive Summary was calculated by dividing the total building renewable energy use by the total building energy use. Total building energy is calculated as the kilowatt-hour (kWh) equivalent of all energy produced on-site through stationary combustion and renewable energy installations and all purchased electricity and purchased heating. Renewable building energy is calculated as the kWh equivalent of all renewable energy generated on-site (through renewable energy installations on-site, such as solar panels and through the combustion of renewable fuels) plus all purchased renewable energy. The usage of purchased renewable electricity is calculated by using data that entities provide on the percentage of their purchased electricity sourced from renewables. If this data is not provided, renewables information for the electricity grid of the country in which each office is located is used.

Air Travel and the International Civil Aviation Organization (ICAO) Calculator Methodology

In April 2009, the Environmental Management Group (EMG) adopted the ICAO Carbon Emissions Calculator (ICEC) as the official tool for United Nations entities to quantify their air travel CO_2 footprint, in support of their climate neutral commitments and the overarching *Strategy for Sustainability Management in the United Nations System 2020-2030*. Since then, organizations have reported their GHG inventories through the Greening the Blue using the ICAO carbon emissions calculator (ICEC).

The use of a common, transparent, impartial and internationally approved methodology across the UN system facilitates the aggregation of air travel emissions data from different organizations and guarantees integrity and consistency of reported inventories.

The ICEC is limited to calculating the CO_2 emissions released into the atmosphere by the aircraft engines during a flight. There is a substantial understanding of the components of aviation climate forcing, particularly CO_2. However, important uncertainties remain in quantifying some of the aviation non-CO_2 climate terms and in the underlying physical processes. As a consequence, there is not yet an international scientific consensus on whether and how to mitigate these non-CO_2 emissions.

Due to the COVID-19 pandemic in 2020, the total number of passengers carried by airlines fell by 60 per cent compared to 2019. This disruption in aviation activities might have affected both the Passenger Load Factor and the Passenger to Cargo Factor, applied by the ICEC and obtained from traffic and operational data reported to ICAO by Member States. Due to delays in reporting by Member States ICAO could not compute with a high-level of accuracy the ICEC 2020 Load Factors before the finalization of the UN inventory. As such, 2019 values have been used in order to estimate 2020 emissions. Nevertheless, a possible increase in emissions due to a decrease in passengers load factors would be offset by an equivalent decrease in Passenger to Cargo Factor[1].

For additional information on the ICAO Carbon Emissions Calculator, please visit this webpage or contact officeenc@icao.int

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1 During the pandemic several air carriers have utilized passenger aircraft for cargo operations.

Waste Methodology

The methodology for measuring and reporting waste management practices was developed and implemented during the 2016 waste inventory. It was improved in 2018 by incorporating lessons learnt and feedback from UN Focal Points. The scope of the UN waste inventory is set to waste from facilities and operations. The approach requires the collection of data on waste quantities by:

- type of waste (e.g. paper, plastics, metal, e-waste, etc.);
- method of collection (e.g. municipality, private contractor, take-back scheme, etc.); and,
- type of treatment and disposal (e.g. landfill, recycling, reuse, etc.).

The approach follows the recommendations of the Framework for the Development of Environment Statistics developed by the Statistics Division at the UN Department of Economic and Social Affairs and is in line with Global Reporting Initiative indicators.

In addition, qualitative information on activities such as the implementation of policy and waste management plans is collected to enable the sharing of best practices between UN entities.

The information on waste averages and methods of disposal provided in the *Report* are based only on UN sites that were able to provide complete data. Some sites provide data only on certain waste streams for which they have information, which does not present a full picture of their waste; these sites are not included in the UN system-wide waste estimates.

Water Methodology and Wastewater Data

The approach for measuring and reporting water management practices was developed and implemented during the 2018 inventory exercise. It was improved in 2019 by incorporating lessons learnt and feedback from UN Focal Points. The scope of the UN water inventory is set to water from facilities and operations. The approach requires the collection of data on water as follows:

◆ Water usage (e.g. water source, volume of water, etc.)
◆ Water recycled internally

The approach is in line with Global Reporting Initiative indicators and looks at affected water sources.

In addition, qualitative information on activities, such as the implementation of policies and water management plans, is collected to enable the sharing of best practices between UN entities.

Data on wastewater management is, to this date, not yet included in the UN system environmental inventory. However, a methodology to collect it will be developed in the future.

Environmental Governance, Procurement and Human Resources Methodologies

Environmental Governance

Data for the year 2020 for indicators on environmental management systems (EMS) of UN entities, were collected via a survey to UN entities. The indicators in the survey and the updated criteria for EMS was developed during 2021 and was revised with input from entity Focal Points. The scope of the indicators and criteria was updated to align with the indicators for EMS in the *Strategy for Sustainability Management in the United Nations System, Phase I: Environmental sustainability in the area of management* and the EMS requirements in the ISO 14001:2015, which is the recommended approach of EMS in the UN system. The UN entities that responded to the survey performed quality assurance of their submissions before the final scoring according to the below EMS criteria was made.

EMS Criteria

Exceeds: the entity was ISO 14001 certified or has performed a self-declaration of an EMS in compliance with ISO 14001 for the year 2020.

Meets: in 2020, the entity, in addition to the requirements in 'Approaches', had addressed and incorporated key environmental aspects and impacts into: action plans; mandatory staff training; risk management; operational control; and procedures; monitoring and measuring; periodic internal controls or auditing; and annual management review with corrective actions integrated into action plans. The scope of the EMS must cover a minimum of 50 per cent of the entity's personnel.

Approaches EMS: in 2020, the entity had an environmental policy that had been reviewed in the past five years, objectives and targets in place on environmental performance. The scope of the EMS must cover at least headquarters or one or more outposted offices.

Does not meet: in 2020, the entity did not yet have an environmental policy and/or environmental targets and objectives in place which had been approved by their senior management.

For more detailed information on these requirements, please visit UNEP's online resource at emstoolkit.org

Procurement

All data published in the *Greening the Blue Report 2021* is obtained from the 2020 Annual Statistical Report on UN Procurement (ASR).

The ASR is compiled annually by the United Nations Office for Project Services on behalf of the UN system. The ASR reported on the sustainable procurement efforts of UN entities for the first time in 2008. The data is obtained through a voluntary questionnaire that is shared with all UN entities reporting to the ASR. Since 2018, all 39 UN entities that submitted procurement transaction data to the ASR have voluntarily shared information on their sustainable procurement practices.

Human Resources

Data for indicators on environmental training and awareness of UN personnel and performance management systems of senior management were collected via survey to UN entities. The survey was developed and piloted during 2020 and was then revised with input from entity Focal Points in the first half of 2021. The scope of this new indicator covers all personnel which includes staff, consultants and independent contractors.

IX. Acknowledgements

greeningtheblue.org

Annex – Environmental Performance Dashboard

UN Entities' Greenhouse Gas Emissions & Climate Neutrality – 2020 Data[a]

Entity	Number of Personnel	2020 Total Emissions (tCO$_2$eq)	Total Emissions Rolling Two-year Averages 2016-2020[b]	2020 Per Capita Emissions (tCO$_2$eq/personnel)	Per Capita Emissions Rolling Two-year Averages 2016-2020[b]	Climate Neutral
CTBTO	303	465		1.5		No
FAO	11 699	20 860		1.8		Yes
GCF	304	611		2.0		Yes
IAEA	2 971	16 179		5.4		Yes
ICAO	807	1 607		2.0		No
IFAD	1 084	1 384		1.3		Yes
ILO	3 185	5 846		1.8		Yes
IMF	3 966	15 623		3.9		Yes
IMO	273	419		1.5		Yes
IOM	16 254	34 794		2.1		Yes
ITC	485	1 110		2.3		Yes
ITC-ILO	250	531		2.1		Yes
ITU	972	2 105		2.2		Yes
OPCW	N/A	N/A		N/A		N/A
UN Secretariat:						
ECA	711	1 823		2.6		Yes
ECE	260	435		1.7		Yes
ECLAC	874	1 144		1.3		Yes
ESCAP	879	871		1.0		Yes

a   The difference in the size, nature and operations of entities, changes in coverage of offices across years, changes in methodologies, scope and underlying databases of the emissions calculator means that comparisons across entities and between years cannot be accurately made unless detailed analysis is done.
b   Data is not available in all reporting years, 2016 to 2020, for all entities. GCF and UNICC became members of the Greening the Blue Initiative in 2020 and 2021, respectively.
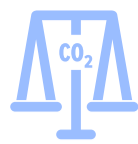
Annex – Environmental Performance Dashboard

UN Entities' Greenhouse Gas Emissions & Climate Neutrality – 2020 Data[a]

Entity	Number of Personnel	2020 Total Emissions (tCO_2eq)	Total Emissions Rolling Two-year Averages 2016-2020[b]	2020 Per Capita Emissions (tCO_2eq/personnel)	Per Capita Emissions Rolling Two-year Averages 2016-2020[b]	Climate Neutral
ESCWA	511	3 775		7.4		Yes
OHCHR	1 630	3 307		2.0		Yes
Peace Operations	100 310	764 288		7.6		Yes
UNEP	1 300	2 614		2.0		Yes
BRS	70	53		0.8		Yes
CBD	117	335		2.9		Yes
Ozone Secretariat	18	13		0.7		Yes
UN-Habitat	2 209	8 704		3.9		Yes
UNHQ	8 639	27 546		3.2		Yes
UNOG	1 547	2 166		1.4		Yes
UNON	832	738		0.9		Yes
UNOV	3 317	8 249		2.5		Yes
Other UN Secretariat entities[c]	23 965	134 210	N/A	5.6	N/A	Yes
UNAIDS	725	1 949		2.7		Yes
UNCCD	70	93		1.3		Yes
UNDP	18 496	27 085		1.5		Yes
UNESCO	3 951	8 079		2.0		Yes
UNFCCC	445	371		0.8		Yes
UNFPA	4 411	11 778		2.7		Yes

a   The difference in the size, nature and operations of entities, changes in coverage of offices across years, changes in methodologies, scope and underlying databases of the emissions calculator means that comparisons across entities and between years cannot be accurately made unless detailed analysis is done.

b   Data is not available in all reporting years, 2016 to 2020, for all entities. GCF and UNICC became members of the Greening the Blue Initiative in 2020 and 2021, respectively.

c   This grouping represents AMISOM and other UN Secretariat entities' emissions sources. The composition of Other UN Secretariat entities has changed over the reporting years, 2016 to 2020, hence trendlines are not possible.

Annex – Environmental Performance Dashboard

UN Entities' Greenhouse Gas Emissions & Climate Neutrality – 2020 Data[a]

Entity	Number of Personnel	2020 Total Emissions (tCO_2eq)	Total Emissions Rolling Two-year Averages 2016-2020[b]	2020 Per Capita Emissions (tCO_2eq/personnel)	Per Capita Emissions Rolling Two-year Averages 2016-2020[b]	Climate Neutral
UNHCR	16 615	47 129		2.8		Yes
UNICC	397	504	N/A	1.3	N/A	Yes
UNICEF	18 736	38 695		2.1		Yes
UNIDO	3 251	7 807		2.4		Yes
UNITAR	N/A	N/A		N/A		N/A
UNOPS	3 930	9 316		2.4		Yes
UNRWA	2 837	8 137		2.9		No
UNSSC	96	143		1.5		Yes
UNU	153	681		4.5		Yes
UNV	140	148		1.1		Yes
UN Women	3 460	5 991		1.7		Yes
UNWTO	152	143		0.9		Yes
UPU	268	493		1.8		Yes
WFP	19 903	77 832		3.9		Yes
WHO	8 343	33 023		4.0		Yes
WIPO	1 572	3 745		2.4		Yes
WMO	273	979		3.6		Yes
World Bank Group	16 614	139 976		8.4		Yes
WTO	845	4 303		5.1		No
Total UN system-wide	**315 425**	**1 490 207**	**—**	**4.7**	**—**	**99%**

a   The difference in the size, nature and operations of entities, changes in coverage of offices across years, changes in methodologies, scope and underlying databases of the emissions calculator means that comparisons across entities and between years cannot be accurately made unless detailed analysis is done.
b   Data is not available in all reporting years, 2016 to 2020, for all entities. GCF and UNICC became members of the Greening the Blue Initiative in 2020 and 2021, respectively.

Annex – Environmental Performance Dashboard

UN Entities' Environmental Management System Status – 2020 Data[a]

Entity	Exceeds[b]	Meets	Approaches	Does not meet	Did Not Report
CTBTO					X
FAO			X		
GCF					X
IAEA					X
ICAO					X
IFAD			X		
ILO			X		
IMF				X	
IMO					X
IOM				X	
ITC				X	
ITC-ILO					X
ITU				X	
OPCW					X
UN Secretariat:					
ECA			X		
ECE				X	
ECLAC				X	
ESCAP		X			
ESCWA				X	
OHCHR			X		
Peacekeeping and Special Political Missions		X			
UNEP			X		
BRS				X	
CBD					X
Ozone Secretariat				X	
UN-Habitat				X	
UNHQ			X		
UNOG					X
UNON			X		
UNOV				X	
Other Secretariat Entities[c]					
UNAIDS				X	
UNCCD				X	
UNDP			X		
UNESCO				X	
UNFCCC				X	
UNFPA			X		
UNHCR				X	
UNICC				X	
UNICEF			X		
UNIDO					X
UNITAR				X	
UNOPS				X	
UNRWA					X
UNSSC				X	
UNU			X		
UNV				X	
UN Women				X	
UNWTO				X	
UPU				X	
WFP			X		
WHO					X
WIPO				X	
WMO				X	
World Bank Group				X	
WTO					X

a This year, the UN system's efforts on environmental governance are monitored and reported in a new manner. Reporting and evaluation of EMS is now further aligned with the *Strategy for Sustainability Management in the United Nations System, Phase I* and the requirements of the international standard on environmental management, ISO 14001:2015. The updated criteria establish a new baseline of the UN system's performance which limits the ability to compare progress to pre-2020 data. For more information on definitions and the data analysis criteria, see the Methodology section of *Greening the Blue Report 2021*.

b According to the new methodology, no UN entities have an EMS which exceeds the established criteria.

c This grouping represents AMISOM and other UN Secretariat entities. The amalgamated category of Other Secretariat entities is excluded from Environmental Management System reporting because individualized results for this category of Secretariat entities are unavailable.