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# MOVING TOWARDS A CLIMATE NEUTRAL UN

## The UN system's footprint and efforts to reduce it

*2011 edition*

This is a UNEP publication, prepared in its capacity as secretariat of the UN Environment Management Group. The publication has been produced with the support of Martineau & Co, Zoi Environment Network and Thad Mermer.

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## The UN system's footprint and efforts to reduce it

*2011 edition*

UNEP promotes environmentally sound practices globally and in its own activities. This publication has been published only in an electronic version and is formatted for ease of reading on your computer monitor.

# Foreword

**M**oving Towards a Climate Neutral UN showcases the enthusiasm of UN staff across the world for making the operations of the UN system more sustainable.

We are making steady progress. In March, the main UN website launched a new section offering a wide range of information on the Organization's sustainability performance. In April, I opened the new UN building in Nairobi – a beacon of sustainable construction. In May, a new position - UN Senior Advisor on Sustainability - was

created to coordinate the Secretariat's work on climate neutrality. In August, I presented the UN21 Award to the UN Environment Programme and the Department of Field Support for their efforts to green the UN. And in September, senior officials of the inter-agency Environment Management Group approved a Strategic Plan for Sustainability Management in the UN system.

The United Nations system is strongly committed to leading by example and ensuring that our operations are continuously monitored and improved - not just in

terms of *what* we deliver, but also *how* we deliver. We are also looking to this year's UN Conference on Sustainable Development – Rio+20 – to generate ideas that will energize sustainability efforts worldwide.

I thank the Heads of UN agencies and their staff for working together to move their entities towards sustainability. And I commend this publication to all those within and beyond the UN family who want to play their part in placing the world onto a truly sustainable footing.

*New York, April 2012*



**Ban Ki-moon**  
United Nations Secretary General

A handwritten signature in black ink that reads "Ki-moon Ban". The signature is written in a cursive, flowing style.

# Preface

Over the last few years the UN system has moved from recognising the need to embed sustainability into its operations, to getting on with the business of doing it.

The UN family consists of organizations with numerous mandates, implemented by staff from different countries and cultures, and has famously complex rules and regulations. Yet 54 UN entities have been working together with increasing effectiveness under the banner of 'sustainability', with UNEP facilitating the call by the UN Secretary General and the Chief Executive Board's decision for the UN to move towards climate neutrality through the Environment Management Group hosted by UNEP and implemented through the Sustainable UN (SUN) team.

This third edition of *Moving Towards a Climate Neutral UN* details the UN system's carbon footprint in 2010 and the progress made in 2011 to reduce it.

In 2010 the UN's emissions were 1.8 million tonnes CO<sub>2</sub>eq in total and 8.2 tonnes CO<sub>2</sub>eq per capita. Efforts to reduce these emissions are underway, and will continue throughout 2012.

The process of moving the UN towards climate neutrality gives us direct experience of the complexities associated with preparing a large international organization for a green economy. But we recognise that this work is vital for delivering sustainable development, and has the potential to realise the best of human ingenuity and creativity.

In the run up to Rio+20 UNEP continues to improve its own sustainability performance in the way it works. Last year saw the staff at UNEP headquarters in Nairobi and colleagues in UN-Habitat move into a new purpose-built, resource-efficient building at the Gigiri compound. Making best use of natural light and ventilation, the new office is a showcase for environmental architecture and green technologies, as well as being a pleasant place in which to work and a magnet for architects and public planners in the region keen to emulate the concept and practical ideas demonstrated.

By championing a climate neutral UN the various organizations, agencies, programmes and funds are becoming part of a global community developing innovative solutions and sharing lessons learnt on the challenges and opportunities at hand.

*Nairobi, April 2012*



**Achim Steiner**  
Under-Secretary General  
Executive Director, UNEP, and  
Chair, UN Environment Management Group

# Acknowledgements

This report would not be possible without the tireless efforts of the Focal Points of the Issue Management Group on Environmental Sustainability Management. These Focal Points are responsible for compiling the greenhouse gas inventories for their organizations and have undertaken, with the support of staff from across the UN system, to measure, monitor and reduce the footprint of their organizations. Once again, we would like to commend them for their work - a model for intra as well as inter-agency cooperation in the UN:

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# Highlights of 2011

## January

- UNEP, UNOPS and the WFP's Fleet Forum published guidelines to assist UN agencies in procuring better vehicles. The guidance helps operations managers consider environmental and social impacts resulting from the production, use and disposal of vehicles, as well as technical specifications.

## February

- Guidance for the purchasing of catering services was issued by the SUN facility in collaboration with UNOPS and the HLCM Procurement Network.

## March

- UN.org - the main website for the UN system -launched a new page on sustainability. The page highlights the UN's environmental, social and economic performance and provides information on the UN Climate Neutral Strategy.
- UN offices in New York, Geneva and Nairobi joined millions of people across the world to mark Earth Hour at 8pm on 26 March 2011 by switching off the lights to raise awareness of energy waste.

## April

- Secretary-General Ban Ki-moon opened the ambitious new showcase building which houses the UN in Nairobi. 6,000 square metres of solar panels, energy saving lighting, natural ventilation systems and other green features enable the office to generate electricity for its 1,200 occupants.
- For the second year running the UN reported its greenhouse gas emissions. The total for 2009 was 1.7 million tonnes CO<sub>2</sub>eq, or 8.3 tonnes CO<sub>2</sub>eq per capita.

## May

- In preparation for World Environment Day 2011, *Greening the Blue* launched a photo competition. UN staff were invited to submit images on the theme of *Visions of a sustainable UN*.
- The UN Secretariat in New York established a new position to coordinate its move towards environmentally responsible operations. The post of Senior Advisor on Sustainability is co-funded by UNEP and provides support to the SUN facility as well.

## June

- Secretary-General Ban Ki-moon renewed his commitment to keeping sustainable development at the top of his agenda following his re-election by the UN General Assembly.

## July

- The World Bank achieved Gold Certification for Leadership in Energy and Environmental Design for two of its Washington offices.

## August

- The Secretary-General presented DFS and UNEP with the UN21 Award. UNEP was recognised for its continuing efforts to advance sustainability initiatives across the UN, and DFS for a host of measures to reduce CO<sub>2</sub> emissions from field operations.

## September

- Senior officials of the inter-agency Environment Management Group approved a Strategic Plan for Sustainability Management in the UN System, to move the UN towards a consistent, systematic and cost-effective approach to managing sustainability. They also acknowledged the importance of a common sustainability office to support implementation of the plan.
- *Buying for a Better World*, a guide to sustainable procurement, was published by UNEP, ILO, UNOPS and ITC/ILO in collaboration with the HLCM Procurement Network. The report provides advice on how the purchase of products and services can support the UN's sustainability aims.

## October

- Once again, the UN office at Geneva invited hundreds of sheep to graze the grasslands surrounding the Palais des Nations. The sheep cut the grass in an ecologically sustainable manner whilst providing natural fertilizer for the grass and flowers to grow in spring.

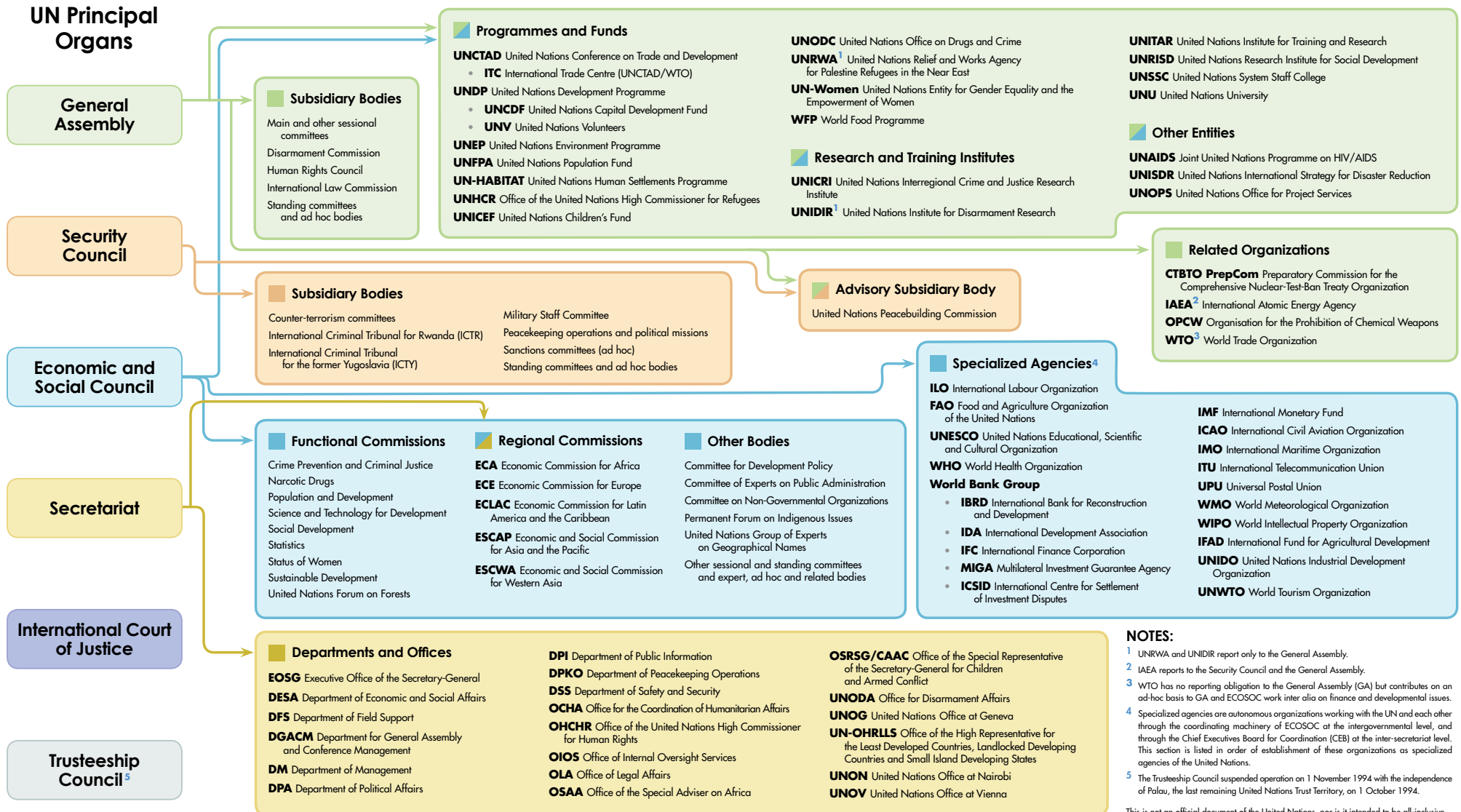
## November

- In celebration of UN Day, the UN in Viet Nam hosted a green picnic for nearly 600 staff, family and friends. The day included a range of activities and attractions.

## December

- The number of Green Champions and Green Groups across the UN doubled in 2011, with over 100 volunteers from across the UN working to make their offices more sustainable.

# The UN system



**NOTES:**

- <sup>1</sup> UNRWA and UNIDIR report only to the General Assembly.
- <sup>2</sup> IAEA reports to the Security Council and the General Assembly.
- <sup>3</sup> WTO has no reporting obligation to the General Assembly (GA) but contributes on an ad-hoc basis to GA and ECOSOC work inter alia on finance and developmental issues.
- <sup>4</sup> Specialized agencies are autonomous organizations working with the UN and each other through the coordinating machinery of ECOSOC at the intergovernmental level, and through the Chief Executives Board for Coordination (CEB) at the inter-secretariat level. This section is listed in order of establishment of these organizations as specialized agencies of the United Nations.
- <sup>5</sup> The Trusteeship Council suspended operation on 1 November 1994 with the independence of Palau, the last remaining United Nations Trust Territory, on 1 October 1994.

This is not an official document of the United Nations, nor is it intended to be all-inclusive.



# 1. Climate neutrality and sustainability within the UN system

The goal of moving the UN towards climate neutrality was first made public in June 2007 by the UN Secretary-General. This was followed later that year by the approval by the UN Chief Executives Board for Coordination (CEB) of the UN Climate Neutral Strategy.

The 2007 UN Climate Neutral Strategy commits heads of UN entities to:

- Estimate their greenhouse gas emissions,
- Undertake efforts to reduce greenhouse gas emissions to the greatest extent possible, and
- Analyze the cost implications and explore budgetary modalities of purchasing carbon offsets.

Since then, the work of implementing the strategy has been undertaken by the Issue Management Group (IMG) on Environmental Sustainability Management, which is composed of individual Focal Points, each representing a different UN entity. The IMG reports to the UN Environment Management Group (EMG) and is supported by UNEP's Sustainable United Nations (SUN) facility.

This is the third annual edition of this report. It details the UN system's carbon footprint in 2010 and efforts made in 2011 to reduce it. Previous reports can be downloaded from [www.greeningtheblue.org](http://www.greeningtheblue.org).

## 2. UN greenhouse gas emissions for 2010

### Methodology

The UN greenhouse gas inventory follows the principles of the Greenhouse Gas Protocol developed by the World Resources Institute and the World Business Council for Sustainable Development, though modified to suit the specific needs of participating UN entities.

The October 2007 decision of the CEB limits the boundary of the UN greenhouse gas inventory to emissions from facility operations and travel that can be influenced by management-level decisions. These include emission categories associated with the purchase or production of electricity and heat (such as steam), use of refrigerants (for air-conditioning as well as refrigeration) and transportation. The inventory includes all six greenhouse gases covered by the Kyoto Protocol: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>. The emissions are reported both separately for each greenhouse gas in terms of their mass, and as an aggregate using the common comparable unit of carbon dioxide equivalents (CO<sub>2</sub>eq). The specific emission categories and the methodologies used can be found in Annex II.

The common minimum boundary excludes several sources of greenhouse gas emissions that could result from UN activities. Recommended best practice is to voluntarily document all sources of emissions not included in the minimum boundary under an additional category called Optional Emissions. These include:

- Emissions associated with decisions for which individual staff members are responsible and that relate to their personal sphere (e.g. emissions from personnel commuting to and from the work place),
- Emissions from projects implemented by external entities,

- Emissions due to couriers and postal mail,
- Embodied carbon in products and equipment used by the UN, for instance food, beverages, paper and computers, and
- Emissions from the decomposition of organic waste and from waste water treatment arising from UN premises.

The reporting and estimation of the emissions is done through the following tools: formatted files for data collection, available in English, French and Spanish; an online office emissions calculator; a stand-alone air travel emissions calculator; and a web-portal, where the data files can be uploaded and emission results generated. The substantive inputs for developing the system were provided by SUN, and software development was led by DFS. The air travel emissions calculator is a proprietary product of ICAO.

Over the course of 2010 improvements were made to the measurement system, for example:

- ICAO updated their air travel emissions calculator with the latest industry data and statistics.
- A number of proxy methodologies were developed or updated for reporting type and number of staff, and for several emission sources when the activity data was not available. For example, a proxy was developed for estimating emissions from travel funded through lump sum grants and another proxy was developed for estimating electricity consumption in offices that do not have access to electricity consumption data, based on climatic conditions and green building standards.
- Fuel economy factors for commonly used vehicle categories were developed or updated.

### Results

For 2010, UN greenhouse gas emissions were 1.8 million tonnes CO<sub>2</sub>eq in total and 8.2 tonnes CO<sub>2</sub>eq per capita. These figures are similar in magnitude to the results for 2008 and 2009. The per capita emissions show a wide range among the agencies, of between 2.5 and 36 tonnes, the spread illustrating the differences in emissions intensities, operation types and geographical locations. Outside the common minimum boundary of the UN greenhouse gas inventory, 12,000 tonnes CO<sub>2</sub>eq of Optional Emissions and 1,000 tonnes CO<sub>2</sub>eq of biomass-related emissions were also reported.

Air travel accounts for half of the UN system's total emissions. Per capita air travel emissions were 4.2 tonnes CO<sub>2</sub>eq, with a few agencies reporting figures over 10 tonnes, especially those with more centralized operations. Building-related energy intensity<sup>1</sup> was 172 kWh per m<sup>2</sup>. This indicates the efficiency with which energy was produced or used in buildings and facilities, including stationary combustion, and purchased steam and electricity.

Building-related emissions intensity<sup>2</sup> stood at 104 kg CO<sub>2</sub>eq per m<sup>2</sup>, which includes leakage of refrigerants, in addition to emissions from energy sources used in buildings.

### Completeness

This inventory covers 54 UN entities. Of these, 43 reported data in 2010 – two of them, for the first time. Six organizations that reported their greenhouse

<sup>1</sup> Sum of energy consumed as Purchased Electricity, Purchased Steam and Stationary Consumption, all expressed in kWh.

<sup>2</sup> The figure covers only 43 UN entities that reported their data for 2010.

emissions for 2009 failed to do so for 2010 due to difficulty in assigning sufficient resources and staff time for this exercise, or (in the case of UNIFEM) because of organizational restructuring. For similar reasons, five agencies that reported in 2008 could not report either in 2009 or 2010. For these organizations the latest available data from 2008 or 2009 have been used.

Five organizations that reported their data in 2010 have done so through other organizations, as detailed below:

- The data for OCHA, UNCTAD, UNECE and UNISDR have been included within the data reported by UNOG.
- UNODC and UNOV have reported their data jointly.

The changes made to data collection and reporting tools, the development and updating of proxy methodologies, have made data reporting easier. It is expected that this will facilitate a larger coverage of offices and facilities over time.

Responding to the magnitude and significance of emissions from air travel and public transportation used for official travel, a decision was taken by the EMG to make their reporting mandatory, despite this being optional under the Greenhouse Gas Protocol. In accordance with the guidance of the Greenhouse Gas Protocol, emissions from the combustion of biomass or bio-fuels in equipment and vehicles are reported as an information item only. Similar guidance exists for Ozone Depleting Substances controlled by the Montreal Protocol such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), which are mostly used as refrigerants. However, due to their significant presence in UN facilities they have been included under the Optional Emissions category. It has also been decided to make the reporting of CFCs and HCFCs mandatory in the future.

While recognising the significance of non-CO<sub>2</sub> effects of aviation, no provision was made for their estimation or incorporation, pending more clarity and internationally accepted guidance on this issue.

### Data quality

Aspects of the methodologies used for the reporting year 2008 have been simplified over time in recognition of internal capacity and resources limitations. It is accepted that in some circumstances this affects the accuracy of the inventory. Such changes were made in Refrigerants, Purchased Steam and Vehicles (mobile sources). Where data was not readily available, estimates were based on clearly defined assumptions and proxies. A review of the methodologies, data and process is undertaken annually and the IMG is actively involved in this process. More rigorous methods and procedures will be introduced, based on feedback, as resources allow.

A few agencies have prepared Inventory Management Plans (IMPs) and others are expected to follow suit. The IMP is an internal document that records the details of each inventory and helps to institutionalize the process for preparing a high quality inventory.

Efforts have been initiated to develop a quality assurance and control programme for the inventory, including external verification.

### Comparability

The use of a common methodology and the development of proxy methodologies for issues identified as major data gaps have helped to improve the comparability of the inventory across agencies and between years. However, detailed analysis is needed to interpret the

trends, considering the difference in the size, nature and operations of agencies, changes in coverage of offices across years, and the changes in methodologies, scope and the underlying databases of the emissions calculator.

The data for reporting years 2009 and 2010 followed a similar process and methodology and are therefore comparable up to a point. It is more difficult to compare the 2009 and 2010 data with that of 2008. After 2008, changes were made to the methodologies for Purchased Steam, Purchased Electricity and Refrigerants. In addition, there have been rearrangements and changes in the contents of the emission categories. In 2008, the total emissions reported included Optional Emissions (inclusive of Biomass-related emissions). For 2009 and 2010 the total emissions does not include the Optional Emissions, which are reported separately. The biomass-related emissions are excluded from the Optional Emissions and are being reported as an information item only. Another important difference is that in 2008, the emissions from Refrigerants included CFC's and HCFC's, whereas since 2009 these are reported under Optional Emissions.

Table 1: 2010 emissions from UN entities

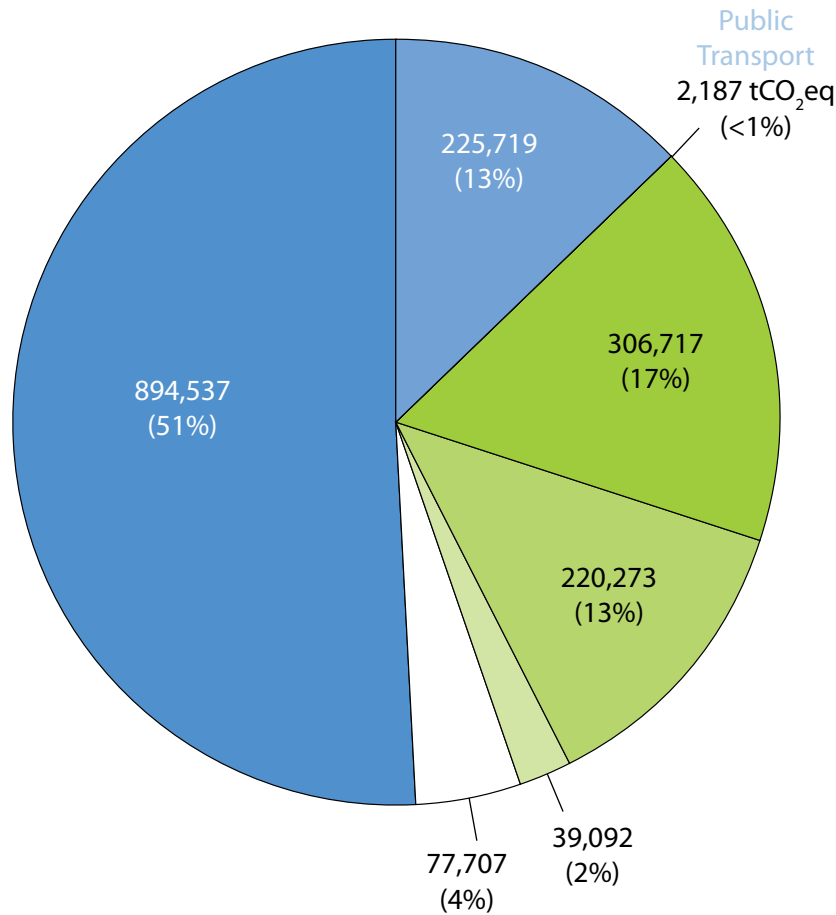
UN agency	Number of staff	Total emissions tonnes CO <sub>2</sub> eq	Emissions per staff tonnes CO <sub>2</sub> eq	Air travel tonnes CO <sub>2</sub> eq	Share of air travel % of total emissions	Air travel per staff tonnes CO <sub>2</sub> eq	Building related emission intensity kg CO <sub>2</sub> eq/m <sup>2</sup>
CBD**	95	3,426	36.1	1,555	45%	16.4	707
CTBTO	426	2,773	6.5	1,756	63%	4.1	42
DFS**	500	3,074	6.1	276	9%	0.6	45
DPA**	1,339	18,227	13.6	6,289	35%	4.7	1,445
DPKO**	114,206	966,068	8.5	456,010	47%	4.0	246
ECA	1,545	4,373	2.8	4,133	95%	2.7	3
ECLAC	700	3,868	5.5	2,737	71%	3.9	54
ESCAP	954	6,764	7.1	1,184	18%	1.2	277
ESCWA	401	4,155	10.4	658	16%	1.6	91
FAO	5,992	45,473	7.6	29,709	65%	5.0	66
IAEA	2,563	25,312	9.9	14,470	57%	5.6	69
ICAO	719	6,080	8.5	2,454	40%	3.4	33
IFAD	900	5,599	6.2	3,796	68%	4.2	71
ILO	3,117	15,000	4.8	9,550	64%	3.1	86
IMO	331	4,447	13.4	1,393	31%	4.2	127
ITC	320	3,447	10.8	3,285	95%	10.3	21
ITU	961	4,883	5.1	3,390	69%	3.5	25
OHCHR	520	5,164	9.9	4,787	93%	9.2	18
OPCW	611	5,163	8.4	3,573	69%	5.8	76
UNAIDS	904	6,678	7.4	4,313	65%	4.8	49
UNCCD	50	406	8.1	318	78%	6.4	14
UNCDF	35	399	11.4	175	44%	5.0	182
UNDP	10,600	54,516	5.1	25,849	47%	2.4	91
UNEP	1,210	13,505	11.2	12,710	94%	10.5	40
UNESCO	5,333	26,581	5.0	10,589	40%	2.0	34
UNFCCC	500	5,119	10.2	4,941	97%	9.9	7
UNFPA	3,303	21,756	6.6	13,503	62%	4.1	38
UN-Habitat*	536	4,057	7.6	3,661	90%	6.8	30

UN agency	Number of staff	Total emissions tonnes CO <sub>2</sub> eq	Emissions per staff tonnes CO <sub>2</sub> eq	Air travel tonnes CO <sub>2</sub> eq	Share of air travel % of total emissions	Air travel per staff tonnes CO <sub>2</sub> eq	Building related emission intensity kg CO <sub>2</sub> eq/m <sup>2</sup>
UNHCR*	1,040	2,593	2.5	2,281	88%	2.2	20
UNHQ	8,185	76,912	9.4	29,126	38%	3.6	172
UNICEF**	1,197	9,565	8.0	6,316	66%	5.3	10
UNIDO*	2,019	11,127	5.5	7,015	63%	3.5	67
UNITAR §	124	494	4.0	478	97%	3.9	12
UNOG <sup>1</sup>	2,502	13,105	5.2	9,638	74%	3.9	22
UNON	750	2,261	3.0	863	38%	1.2	40
UNOPS	2,548	11,054	4.3	4,565	41%	1.8	76
UNOV (incl. UNODC)	950	6,216	6.5	3,925	63%	4.1	41
UNRWA	2,565	12,623	4.9	447	4%	0.2	45
UNU	61	1,512	24.8	318	21%	5.2	199
UNV	150	416	2.8	282	68%	1.9	11
UNWomen* (UNIFEM)	917	3,599	3.9	2,838	79%	3.1	75
UNWTO	148	797	5.4	508	64%	3.4	42
UPU*	250	1,061	4.2	359	34%	1.4	70
WFP	12,390	80,045	6.5	22,422	28%	1.8	9
WHO	2,443	30,319	12.4	26,846	89%	11.0	31
WIPO	1,346	7,069	5.3	3,819	54%	2.8	37
WMO*	600	3,330	5.5	2,750	83%	4.6	21
World Bank (incl. IFC)	14,933	219,763	14.7	137,721	63%	9.2	104
WTO	845	6,061	7.2	4,955	82%	5.9	34
<b>UN TOTAL</b>	<b>214,634</b>	<b>1,766,234</b>	<b>8.2</b>	<b>894,537</b>	<b>51%</b>	<b>4.2</b>	<b>105</b>
<b>TOTAL minus DPKO</b>	<b>100,428</b>	<b>800,166</b>	<b>8.0</b>	<b>438,527</b>	<b>55%</b>	<b>4.4</b>	<b>102</b>

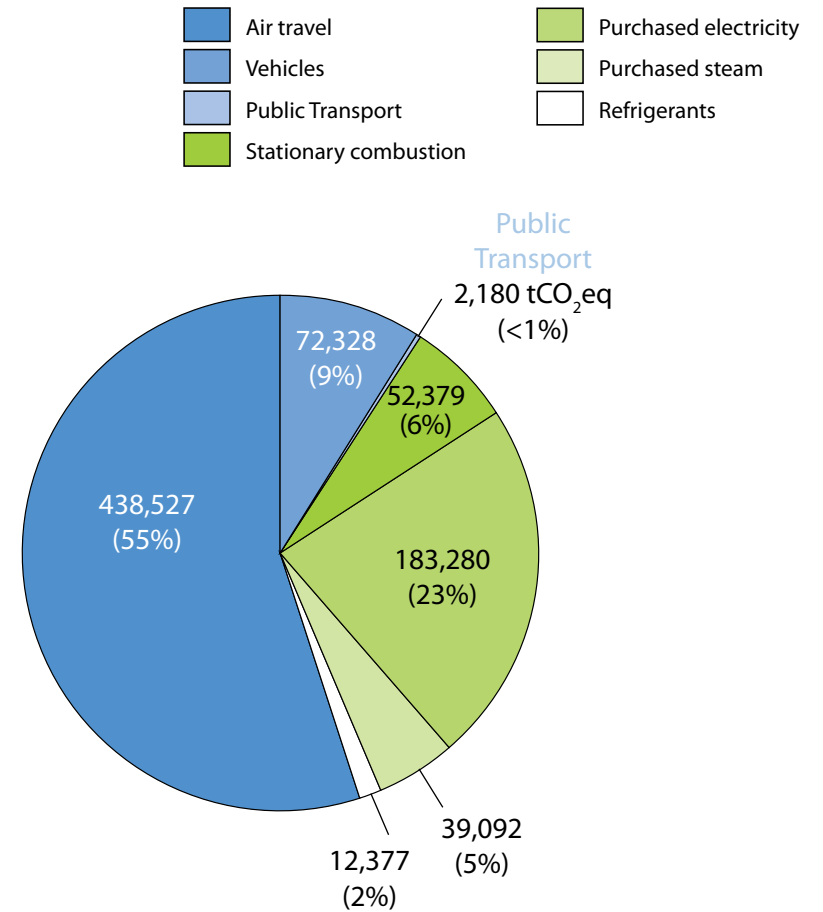
Notes: \* 2009 data, \*\* 2008 data amended for available locations, § Air travel data extracted from UNOG report, <sup>1</sup> UNOG data includes OCHA, UNCTAD, UNECE, UNISDR)

# Chart 1: Sources of UN greenhouse gas emissions for 2010

(in tonnes CO<sub>2</sub> equivalent)



Total emissions by source type  
(1,766,234 tCO<sub>2</sub>eq)

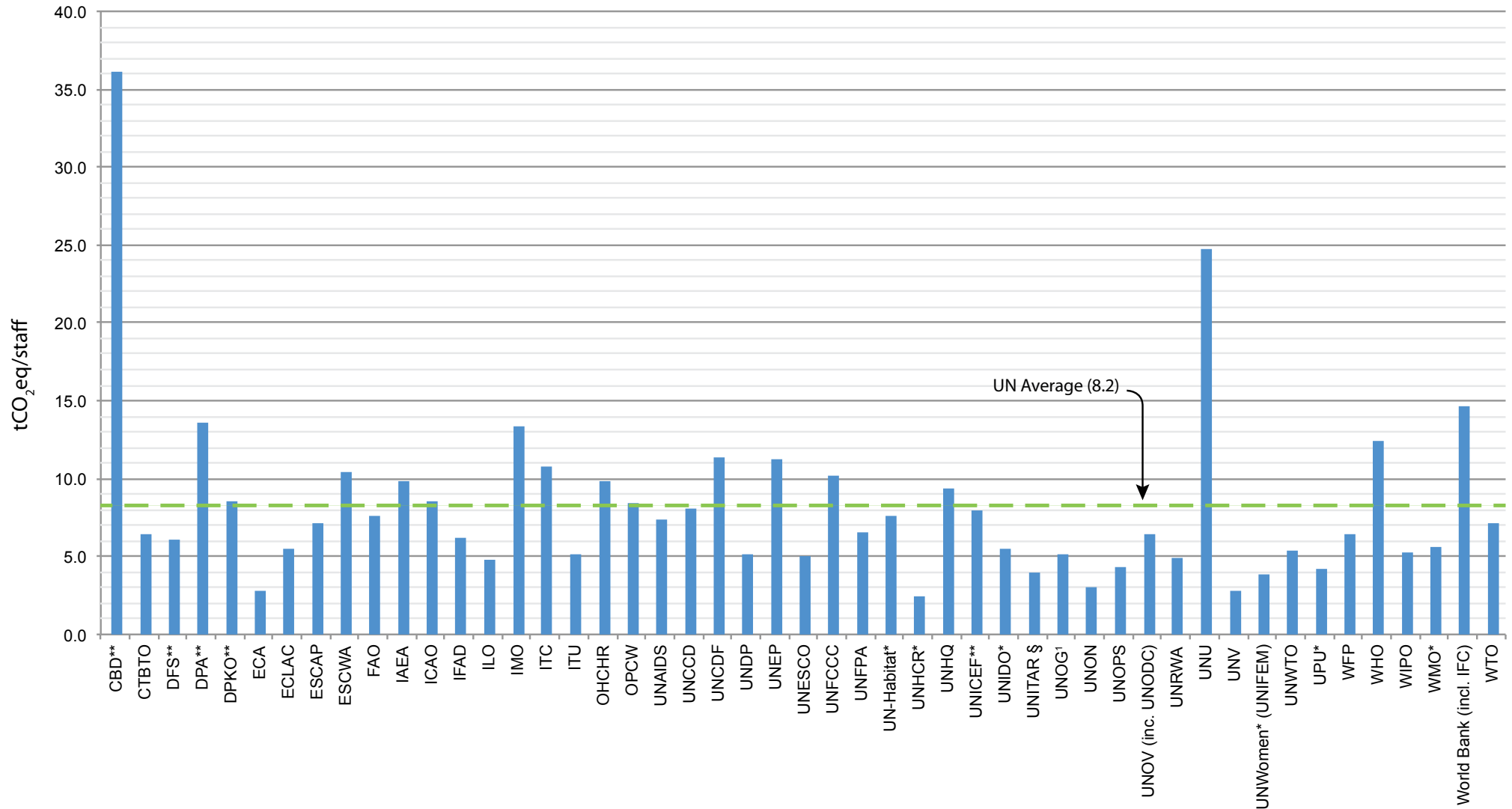


Total emissions by source type excluding DPKO\*  
(800,166 tCO<sub>2</sub>eq)

\* Department of Peacekeeping Operations

# Chart 2: 2010 emissions per capita

(tonnes CO<sub>2</sub> equivalent)



Notes: \* 2009 data, \*\* 2008 data, \$ Air travel data extracted from UNOG report, <sup>1</sup> UNOG data includes CEB, OCHA, UNCTAD, UNECE, UNISDR

## 3. Emission Reduction Strategies: an overview

The Emission Reduction Strategies detail each UN entity's commitments and plans for reducing their greenhouse gas emissions.

Over the past two years, good progress has been made by UN entities in developing and implementing their Emission Reduction Strategies, thanks to their commitment.

At the end of 2010, 21 entities had completed their draft Emission Reduction Strategies. In the course of 2011 the number of completed strategies increased to 34 (or 63% of the 54 participating entities). Lack of staff resources was the most commonly cited reason by those unable to complete the task.

**The following trends have been observed from the Emission Reduction Strategies submitted to SUN in 2011:**

### Organization

Responsibility for implementing greening efforts is being assigned to a specific department or unit. In the past, emission reduction efforts were often led by one staff member or a group of staff, sometimes working out-of-hours. Emerging now is a recognition that this is an official responsibility and organizations are assigning specific environmental duties and goals to a department or lead staff.

### Targets

Most organizations have identified a timeframe in which they will achieve their targets. In most cases, this timeframe is a 2-3 year period, from 2011 to 2013/2014. For the majority of UN entities, emission reduction targets are based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report published in 2007. This report estimates that a global emission reduction in greenhouse gases of 50-85% is required by

2050 compared to 1990 levels, if the average increase in temperature is to be limited to 2 degrees Celsius, which is viewed as the threshold to avoid long-term disastrous environmental impacts from climate change. In most UN entities, this is being translated as between 2-5% annual reductions in total emissions. Targets are also being developed for other sustainability goals e.g. for water and waste.

### Financing

A variety of ways have been found to finance energy and resource efficiency measures. One entity earmarked funds for action sourced from the regular budget of their General Services department. Others have illustrated how a small upfront investment can result in long-term savings with a short payback period in order to obtain funds.

### Travel

Travel remains a major source of greenhouse gas emissions for most entities and is therefore a key focus of reduction measures. Replacing travel with tele- and video-conferencing is a preferred approach in many entities. For local level commuting, hybrid cars (with parking spots) and annual events to promote cycling to work - coupled with free repair workshops and bike-sharing programs - are also becoming part of organizational practices.

### Facilities

A number of organizations are upgrading older equipment to be more energy efficient in an effort to reduce emissions from facilities and achieve cost savings. New models of Heating, Ventilation and Air-Conditioning (HVAC) systems are being employed. In one such case, savings are projected to amount to over US\$200,000 per year. Smaller but still important savings are also forecast from upgrades of chillers, including reductions of 83,500kwh, US\$15,000

and 41.42 tonnes of CO<sub>2</sub>eq for one entity. Energy efficient lighting is another area, and annual savings of US\$20,000 are already being realised by one organization, with a pay-back period of only three and a half years. One organization plans to install solar panels, reducing its emissions by 75.6 CO<sub>2</sub>eq per year, and annual cost savings of US\$81,000. A number of entities are replacing their ozone-depleting refrigerants with more sustainable alternatives. The potential reduction in emissions from this source can be significant, 34% in one case.

### Sustainable procurement

In most UN entities' plans, improvements to procurement policies and practices so as to better incorporate environmental and social considerations are either under implementation or scheduled to be introduced during the period 2012-2014. Organizations say that improving their carbon footprint through procurement will send a signal to the marketplace.

### Other sustainability issues

Voluntary green groups are emerging across the UN system, composed of environmentally concerned staff and, in some cases, IMG Focal Points. Their work helps in the implementation of the Emission Reduction Strategies. Groups meet regularly to tackle a range of issues and to raise awareness among all staff of how they can develop more sustainable ways of working.

Other common sustainability areas tackled by UN entities include IT and waste management. IT efforts include equipment upgrades to more efficient models (laptops replacing desktops, for example) or incorporating different practices (centralized printing) as well as behavioural changes such as turning off power sources when leaving for the evening.

## Table 2: Examples of commitments and actions from the Emission Reduction Strategies received in 2011

The table below shows some of the commitments, policies and actions identified in the Emission Reduction Strategies submitted in 2011. Many strategies have yet to be approved and published by internal management teams: the identity of individual entities is therefore anonymous at this stage.

Overall targets	Reductions from travel	Reductions from building	Offsetting	Other actions
<ul style="list-style-type: none"> <li>Reduce greenhouse gas emissions by 4% by 2013 compared to 2009</li> <li>Increase recycling from 45% (2010) to 55% (2011) and 60% (2012)</li> <li>Reduce greenhouse gas emissions by at least 4.8% per capita between 2008-2014.</li> <li>Reduce travel-related emissions by 5% and building-related emissions by 5-10% between 2008 and 2013.</li> <li>Reduce greenhouse gas emissions by 5% each year from 2011 to 2013</li> <li>Achieve total savings from greenhouse gas cuts and environmental measures of US\$110,000 per year</li> <li>Reduce total greenhouse gas emissions by 4% during 2009-2013</li> <li>Cut down HVAC emissions by 33% between 2011-2014</li> <li>Reduce total emissions by 5% for 2012/2013</li> </ul>	<ul style="list-style-type: none"> <li>Increase in economy versus business class flights</li> <li>E-conferences prepared by secretariat whenever possible</li> <li>Make travel by train mandatory if journey is less than 8 hours</li> <li>Increase number of bicycles available</li> <li>Introduce telecommuting/working from home</li> <li>Modify staff rules to incorporate greenhouse gas emission considerations</li> <li>Ensure travel agent contracts incorporate greenhouse gas emission considerations</li> <li>Introduce travel agent criteria such as carbon footprint for each quote and ticket issued, option to book train instead of plane, provide most direct routing information</li> <li>Bundle missions: staff combine meetings in one trip</li> <li>Reduce number of staff travelling to same meetings</li> <li>Modify travel rules relating to train and business class air travel</li> <li>Review travel approval process to encourage e-communications</li> <li>Travel by train if less than 6 hours and cost difference not more than 15%</li> <li>Amend travel policy: business class raised from 6 to 9 hours</li> </ul>	<ul style="list-style-type: none"> <li>Upgrade heating system</li> <li>Air-conditioning off periods</li> <li>Air curtains at ground entrance</li> <li>Raise building temperature in summer and lower it in winter</li> <li>Heavy curtains will keep offices cooler - reducing energy consumed for air conditioning</li> <li>Blinds and shades for cooling</li> <li>Install light timers and motion detectors</li> <li>Install solar panels</li> <li>More efficient lighting</li> <li>Minimize ceiling lights in favour of task lighting</li> </ul>	<ul style="list-style-type: none"> <li>Explore offsets for travel</li> <li>100% offsets due to purchased electricity</li> </ul>	<ul style="list-style-type: none"> <li>Replace stationary desktop computers with more energy efficient laptop computers</li> <li>More multifunctional printers</li> <li>Reduce printers by 50% by replacing with centralized ones (network shared printers rather than desktop printers)</li> <li>Institute swipe cards to reduce printing; cost recovery system</li> <li>Default on printers is two-sided and grey scale printing</li> <li>Move to virtual servers</li> <li>Hold workshop on green IT</li> <li>Turn computers off overnight, turn on energy saving features for computers, photocopiers, and scanners and printers'</li> <li>Upgrade IT for energy efficiency improvements</li> <li>Install water flow reduction devices to reduce water consumption (very high return on investment)</li> <li>Implement recycling system</li> <li>Install water fountains and move away from bottled water</li> </ul>



# 4. Emissions from travel and efforts to reduce them

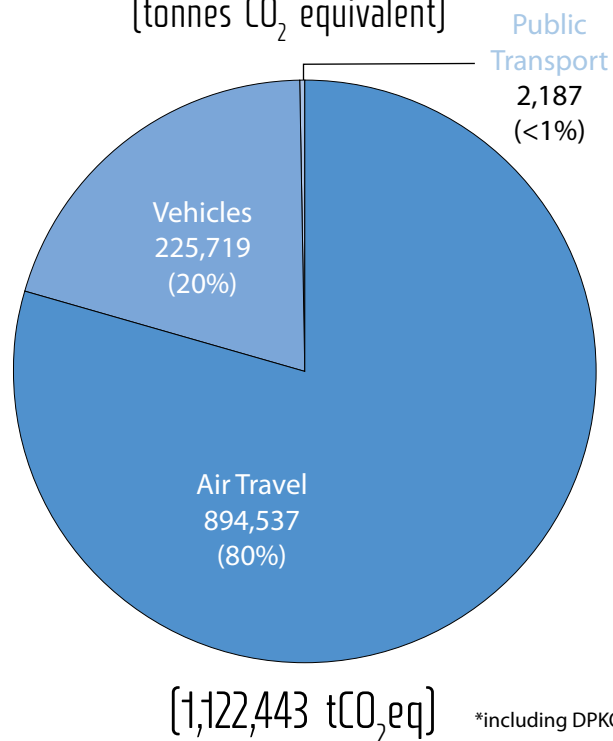
Emissions from travel (particularly air travel) are the largest contributing factor to overall UN carbon emissions. Meeting with people across the world is essential to the UN's work. But is every trip entirely necessary? In the same way that "Think before you Print" is now a common reflex for many UN staff, efforts are underway to ensure that "Think before you travel" becomes a similar habit. This applies not only to UN staff, but also to experts, consultants and conference-goers.

In 2010, travel in general accounted for an estimated 64% of the UN system's greenhouse gas emissions. Air travel alone accounted for 51% of total emissions, up from 48% in 2008 when it cost the UN over US\$1 billion. Travel is therefore both an important challenge and an opportunity for reducing the UN's carbon footprint and its operational expenses.

Throughout 2011, several tools were launched to help UN staff and organizations improve their travel habits.

The first was a set of vehicle procurement guidelines developed through a collaborative effort between UNEP, UNOPS and the Fleet Forum. The guidelines provide advice to agencies on purchasing better vehicles, using

Chart 3: Travel-related emissions\*  
(tonnes CO<sub>2</sub> equivalent)



## Ombudsman's Office reaches out using remote conferencing

Audio and video conferencing are often seen as 'second-best' alternatives to meeting face to face, but when the WFP Ombudsman's office needed to reach staff in more than 30 countries to raise awareness on conflict and dispute resolution, it was the preferred option.

*"Mediation is often a lower cost option for resolving disputes than formal channels, and we wanted to inform staff about mediation, assess their opinion and be ready to clarify any doubts or concerns"* said WFP's then Ombudsman, Georgia Shaver.

The awareness-raising campaign targeted all WFP employees located in selected country offices, sub offices (if possible) and all regional locations. Working with a consultant who had previously delivered remote training for FAO, the Ombudsman's office ran a series of on-line conferences that reached 600 staff in 35 countries over a period of more than two months.

Staff were asked to watch a pre-recorded presentation in advance of the training, and were invited to come to the audio and/or video conference prepared to discuss and ask questions. Remote delivery was time

effective and the most financially efficient way to reach the staff.

In addition there was no jetlag and fewer disruptions to day-to-day work. Some staff enjoy duty travel, and field staff value face to face contact, but in financially constrained times Ms. Shaver found herself asking if this was the best use of resources.

She acknowledges that there were technical issues: low connectivity in some offices led to sound quality challenges on video calls and occasionally staff dropping off the line. But ICT staff in headquarters and in the field were "incredibly helpful".

Despite the challenges, Ms Shaver says reaching out to such a wide range of staff was a tremendous learning experience for the presenters too, because they were exposed to different ways of working. In some offices and cultures, questions were very forthcoming. In others, it was harder to encourage staff to express their views. It was also important to deliver the presentations in languages other than English and there was a lot of appreciation from the staff when the presentations were made in French and Spanish.

a lifecycle approach that includes production and use through to disposal. By raising awareness of the benefits of sustainable procurement and actively seeking to work only with the most sustainable suppliers, the UN is reducing its own emissions and educating its partners about responsible life-cycle procurement.

Another tool came from ICAO, which issued a simple spreadsheet to help determine the best location for international meetings. The tool prompts the user to enter the home bases of the meeting participants, and then calculates the environmentally preferable locations for holding that meeting. Of course other factors may influence the final selection of venue, but at the very

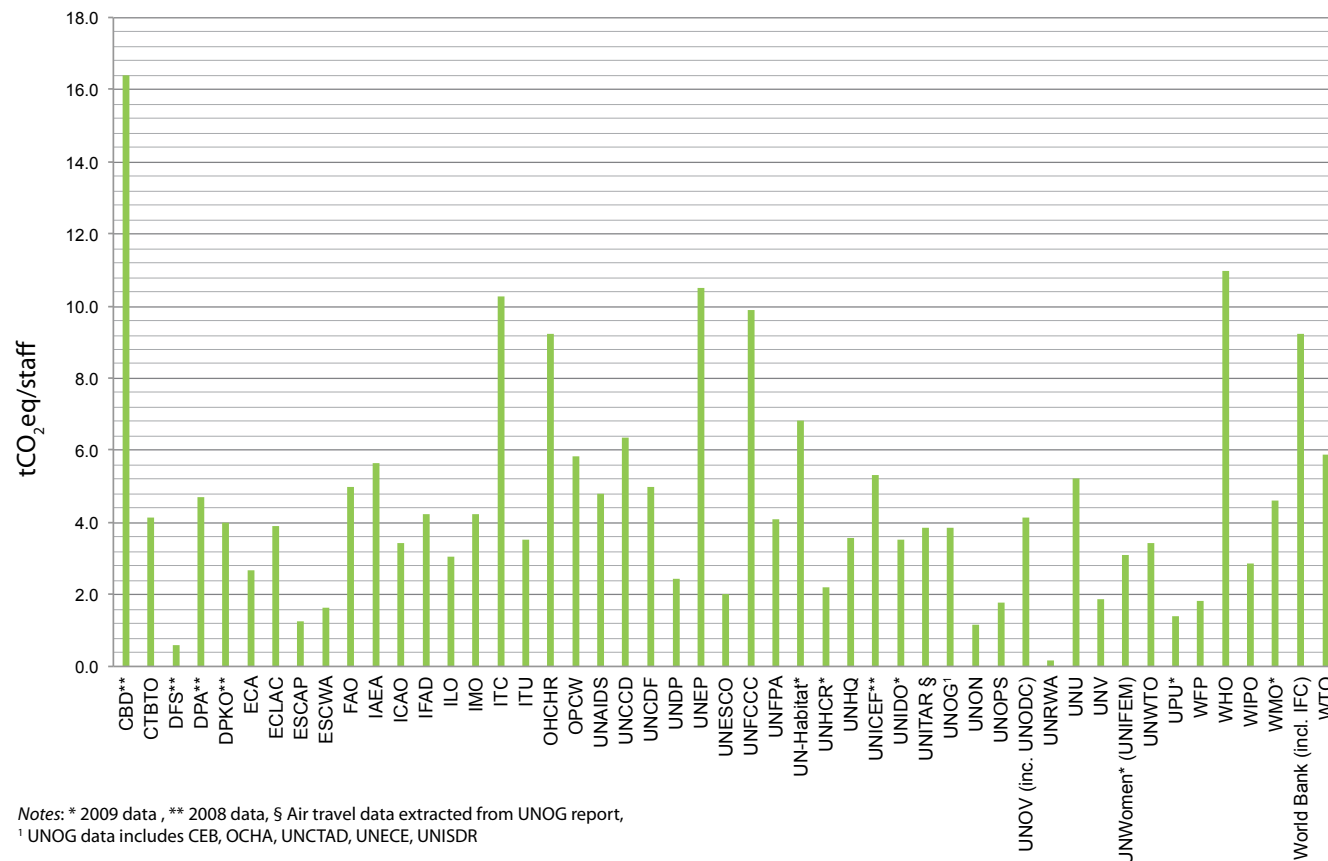
least the Green Meetings calculator ensures that the decision-maker takes the environmental impacts into account.

2011 also saw UNEP launch a free *Blue and REDD Carbon* mobile phone app, which calculates the emissions for a given journey and translates the footprint into an equivalent area of a particular ecosystem – such as a tropical



Screenshots of the Blue and REDD Carbon mobile phone app

Chart 4: Travel-related emissions per staff capita (tonnes CO<sub>2</sub> equivalent)



Notes: \* 2009 data, \*\* 2008 data, \$ Air travel data extracted from UNOG report, <sup>1</sup> UNOG data includes CEB, OCHA, UNCTAD, UNECE, UNISDR

forest or saltwater marshlands – that would be needed to offset it. The app then provides suggestions as to how to make up for the potential damage from the journey, for example, by buying sustainably sourced fish. The app has been produced in English, Arabic, Chinese, French, Japanese, Russian and Spanish and has been available through the iTunes store since December 2011.

Because of the complexity of changing our travel habits, in 2011 the SUN team joined forces with the UN's Inter-agency Travel Network to conduct research into barriers and enablers of sustainable travel policies within the UN system. The work focused on ways in which UN travel rules could support environmentally sensitive and cost-efficient travel behaviour, focusing on a 'whole trip' balance between time and cost requirements. The study will be published on *Greening the Blue* in 2012.

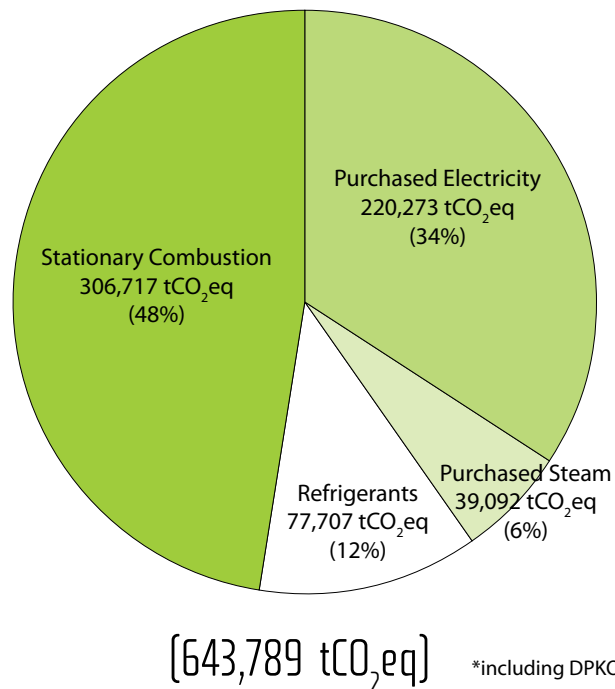
Whilst barriers to sustainable travel remain, progress is being made, at both strategic and grass roots levels, in raising awareness of the importance of sustainable travel choices. Key to achieving greater success in coming years will be addressing inconsistencies in policies that deter sustainable choices.

# 5. Emissions from facilities and efforts to reduce them

Facilities are a focus of the UN system's emission mitigation efforts because they are the largest source of greenhouse gas emissions after travel. In some organizations, facilities overtake travel as a source of emissions.

The Emission Reduction Strategies submitted by UN entities in 2011 detail measures to reduce greenhouse gas emissions from facilities. The actions taken so far include retrofits and upgrades of existing structures

**Chart 5: Emissions from facilities\***  
(tonnes CO<sub>2</sub> equivalent)



and equipment, or where new construction is planned, incorporation of the most up-to-date technology and design features available globally.

The following section outlines some of the common features outlined in the facilities section of the Emission Reduction Strategies:

### Audits and management plans

Energy audits are helping entities prioritize next steps according to available funds and time. In some situations, for instance, where limited funds are available, Focal Points organized audits focusing only on options with minor investment and short payback periods.

### Certification

Some entities are going through the process of green building certification. The process itself often helps the facility manager recognize how to reduce building emissions. The Leadership in Energy and Environmental Design for Existing Buildings (LEED-EB) certification, for instance, was awarded to one UN entity and provided efficiency upgrade information in a number of areas including lighting, plumbing, ventilation, water and energy efficiency, recycling, maintenance and operations. The new UN House in Hanoi, a major ongoing retrofit project, has incorporated in its design the requirements of LOTUS, a new green building rating system developed for Vietnam. These kind of certification systems provide structured frameworks to help identify opportunities for improvement and can help in streamlining, timing and prioritizing changes.

### Energy sourcing

Replacement of fossil fuels with low carbon alternatives can result in major emission reductions. Several UN

entities are taking advantage of this opportunity. For example, UNHQ has recently switched over from fossil fuel based electricity to that from renewable energy sources.

### Energy consumption

One of the quickest areas for a return on investment is improving the efficiency of energy consumption. Examples of efficiency improvements in energy used during 2011 include:

- **Heating, ventilation and air-conditioning:** Facility managers are reducing energy used for HVAC with both high and low-end technologies. For example, on the high end, facility managers are taking advantage of intelligent systems that require cooling based on occupancy. In one case a project taking place between 2011 and 2014 is expected to reduce emissions related to HVAC by 33%. On the other hand, low end options like installation of air curtains are also being implemented.
- **Computer and server efficiency upgrades:** In addition to operational improvements to realise energy efficiency in IT equipment with environmental labels are being considered for procurement.
- **Lighting:** Lighting continues to be a quick and easy area for achieving emission reductions. UN entities are well under way in their retrofitting of light fixtures, installing LED for exit signs, and including motion sensors to activate lights in low-use areas such as stairwells and closets and shut-off timers in high-use areas.

### Green Buildings

Buildings are being constructed or retrofitted in various UN locations, based on Green Building concepts:

- In Nairobi an entirely new sustainable building was inaugurated in April 2011 (see below).
- The new *Green One UN House*, is a major ongoing retrofit project to co-locate UN agencies in Hanoi. The design incorporates environmental architecture, green technologies, use of environment friendly materials and products and improvement in indoor environment quality. The project will be a pilot for a new green building rating tool being developed by the nascent Vietnam Green Building Council.
- In New York, the five-year US\$1.9 billion renovation of the 60-year old Secretariat building includes design initiatives that touch upon multiple aspects of environmental sustainability. Energy efficiency is at the heart of the project. A state-of-the-art building envelope, with a high-performance double glazed curtain wall, new automated blinds and new insulation, along with improved HVAC and lighting systems, will result in 50% less energy consumption than in the past and produce 45% fewer greenhouse gas emissions.

Low flow lavatories and bathroom taps will help realize a 40% savings in water consumption, removal of hazardous materials will improve air quality, and a construction waste management programme (95% recycled) and use of recycled materials illustrate the attention paid to waste efficiency. Staff will move back into the building from July 2012.

## Nairobi's New Office Facility (NOF): Building for the future

The new office facility (NOF) in Nairobi is a perfect example of practical efforts to move the UN towards sustainability. In 2007, Secretary-General Ban Ki-moon urged the staff at all UN headquarters and offices to join together and help combat climate change by making efforts to more efficiently use energy and resources and eliminate wasteful practices. The developers of this Nairobi facility have met this challenge and surpassed it by introducing features that help combat climate change whilst also working with the ecological characteristics of the natural surroundings.

### *Energy efficiency*

The main aim was to create a building that would be capable of being energy-neutral. This means that the NOF is designed to generate as much energy as the 1,000 occupants and facility operations consume. This is achieved, in principle, by complementing demand side energy efficiency measures with supply side measures, such as the installation of solar panels in sufficient number to generate power for all the buildings' energy needs.

Environmental architectural principles have been used, including features that allow natural light to spread from the ceiling to the ground, thereby minimizing the need for artificial lights. Lighting panels have motion sensors that switch off lights when the occupant leaves a room, thereby saving electricity. In addition, the

building is designed to allow for natural ventilation, creating a comfortable internal ambient temperature and eliminating the need for expensive air-conditioning. Technology also features prominently in the building's

ability to reduce energy demand. An external state-of-the-art IT server pack works without air-conditioning and maintains the temperature of the servers using air and cool water. (*Continued next page...*)



## Nairobi's New Office Facility (continued)

This uses 20% of the original energy demand for the server room. Laptops are replacing desktop computers, which will eventually cut personal IT energy needs by 30%.

### Resource efficiency

Improving the efficiency of other resources was also taken into consideration. Water consumption has been reduced through water-saving plumbing, the re-use of grey water for irrigation, and the collection of roof rainwater to fill the water features flanking the building entrances. This approach will help to ensure that NOF is self-sufficient in water and go a long way to meeting all the building's irrigation needs.

Local materials requiring minimal transportation and environmentally-friendly materials were used throughout the building. For instance, the carpets have a high recycled content and are 100% recyclable themselves and all paints are environmentally-friendly.

Equally impactful on efficient use of resources are the landscaping techniques used. During the planning phase a decision was taken to keep as much of the local landscape as possible, including the existing trees. Where new plants were required only indigenous, drought-resistant plants were chosen, to minimize water use and virtually eliminate the need of harmful pesticides, insecticides and fertilizers. They also harmonize well with the natural ecosystem and support local wildlife.

### Some key environmental features

- **Passive & natural ventilation:** Through the 'chimney' effect of warm air rising through the landscaped atrium and in turn drawing cooler air into the offices.
- **Natural light:** Maximized through the construction of light wells throughout the building. The central atrium, covered in a translucent material, also allows plenty of natural light into the landscaped area and the offices facing the atrium.
- **Water harvesting:** Through the collection of all rain-water from the roof which is used for irrigation.
- **Waste water treatment:** All sewage is treated through a state-of-art aeration system and then recycled for irrigation.
- **Plumbing fixtures:** Selected in order to minimize the use of water, the toilets have 3-6 litre flush capacity compared to traditional 12-15 litre flush capacity.
- **Energy efficiency:** Through the installation of advanced fluorescent light fittings with electronic ballast, a 33 % energy saving was realized on lighting energy consumption. In addition, occupancy sensors were installed in all offices, introducing a further 40-50 % savings on lighting energy consumption when compared to a traditional office building. The use of energy-friendly appliances and policies that include the banning of emersion heaters and refrigerators will go a long way to improving the energy neutrality balance.
- **Renewable Energy:** UNEP installed 500 kW of solar panels on the roof and is aiming to make the facility energy neutral.



# 6. Staff engagement and Greening the Blue

**G**reening the Blue is the UN's award winning website on in-house sustainability. It provides UN staff with support and guidance on measures to progress the environmental, social and economic performance of the organization. The site also acts as a valuable tool in sharing best practice with organizations external to the UN.

IMG Focal Points and Green Champions launched a plethora of green initiatives in UN offices around the world last year, many of which were reported on *Greening the Blue*. There are currently over 15 Green Groups, 50 Focal Points and 100 Green Champions representing every UN entities, and their critical contribution to implementing the UN Climate Neutral Strategy often goes unrecognized.

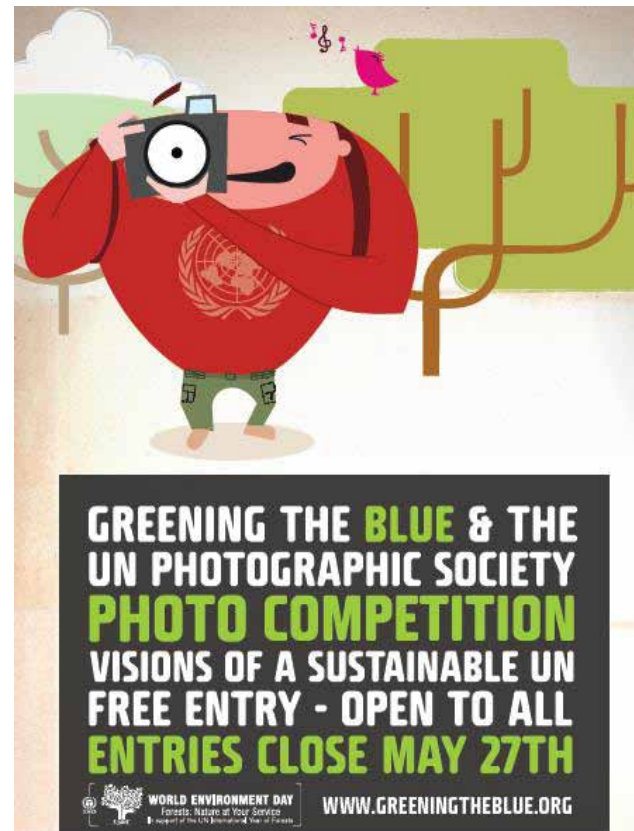
In 2011 *Greening the Blue* introduced promotional materials in all UN languages, adding to the existing resource base of posters, logos, computer wallpapers and flyers. Awareness was further raised through the use of social media networks, with over 2,000 followers on both Facebook and Twitter. The *Greening the Blue* Twitter account is followed by the majority of UN entities and is regularly mentioned by UN leaders such as Christina Figueres (@CFigueres) and Helen Clarke (@HelenClarkUNDP).

Another important development in 2011 was the inclusion of a webpage dedicated to sustainability on [www.un.org](http://www.un.org). The page is a public demonstration of the importance of this agenda to the UN and provides a blueprint for other public sector organizations to replicate

Support for *Greening the Blue* continues to grow month on month. Plans for 2012 include the launch of a Pledge Page, an interactive map (which plots each person as they sign up to an activity) and further campaigns in the run up to World Environment Day and Rio+20.



Banner showing all languages available on the *Greening the Blue* website



Poster for the 2011 'Visions of a Sustainable UN' photo competition

## Visions of a sustainable UN

To celebrate World Environment Day 2011, *Greening the Blue* joined forces with the UN Photographic Society to run a photo competition. Participants were invited to submit images reflecting the theme "Visions of a sustainable UN"

*Greening the Blue* received 377 photos from over 40 countries.

The winning entry was submitted by Nicolas Jarraud and colleagues from the UNDP and the UN Peacekeeping Force in Cyprus.

Niclas Svenningsen, head of SUN, explained:

*"This picture reflects in an eye-catching way elements such as recycling, team work and staff engagement"*



Winning photo from the competition by UN staff in Cyprus

## 7. Procurement

Interest in sustainable procurement continued to grow across the UN throughout 2011, though progress on implementation was slower.

That said, there are some promising signals with sustainable procurement being widely used within the Emissions Reduction Strategies of UN entities. Furthermore, the HLCM Procurement Network has included sustainable procurement among its five strategic priorities.

SUN has developed a support pack to assist UN agencies in implementing sustainable procurement through a collaborative effort with UNOPS, ILO (and its international

training centre), and the HLCM Procurement Network. This consists of a generic guide on sustainable procurement (*Buying for a Better World*), product-specific guidelines on eight product categories, and an on-line training module to be launched in 2012.

The work in this field is now shifting from a focus on developing guidance materials to more stress on assistance for implementation. The Working Group on sustainable procurement, which sits under the HLCM Procurement Network, is planning to use its collective knowledge to assist UN entities that are interested in launching sustainable tenders.

### UN Secretariat in New York powered by renewable energy

When it comes to clean, renewable energy, the stars were aligned for New York's UN Secretariat in 2011. Its major electricity contract was due for renewal. The US\$1.9 billion renovation of the Secretariat building (due for completion in 2012) was set to reduce energy consumption by 50% and carbon emissions by 45%. 2012 was slated to be the International Year of Sustainable Energy for All. Electricity prices had dropped. And, as of May 2011, the Secretariat had a full-time advisor on sustainability.

The outcome was a happy one. As of May 2012, the vast bulk of electricity powering the main campus in New York will not only cost a whole lot less but will also be based 100% on renewable energy. This was done by purchasing Renewable Energy Certificates (RECs), a tradable certificate issued when electricity is generated and delivered to the grid from a qualifying renewable energy source.

Purchasing renewable electricity proved to be only marginally more expensive - US\$95,000 or 1% of an estimated cost of US\$9 million for projected consumption of 68.5 million kWh. Had the Secretariat in New York decided to purchase energy from non-renewable sources and then bought carbon credits to offset the related emissions, the cost would have been far greater, in the order of US\$360,000, making offsetting four times more expensive than purchasing RECs.

Julie MacKenzie, the Secretariat's Senior Advisor on Sustainability was over the moon about the outcome, its compatibility with the resource-efficient design of the renovated Secretariat building, and its support for the Secretary-General's International Year of Sustainable Energy for All:



UNHQ during Earth Hour 2011 (photo by Bo Li)

*"RECs are an investment in renewable energy. Purchasing RECs contributes to expanding the market supply of sustainable energy. This is an excellent instance of the UN practicing what it preaches and leading by example."*

Julie MacKenzie, Senior Advisor on Sustainability, UN Secretariat



## 8. Offsets

At the heart of the UN's Climate Neutral Strategy is the effort to reduce emissions. Unavoidable emissions, however, need to be offset. UN specific guidance has been developed on offsetting emissions, including that from events and meetings.

In September 2011, the EMG approved the recommended approach for voluntary offsetting of GHG emissions by EMG members titled "*Carbon Credits - Recommendations for selection and procurement*". Several UN entities are now procuring high quality carbon offsets, using this guidance, and many are taking interest in offsetting emissions from UN events and making them climate neutral.

### Offsetting at the UNDP Bratislava Regional Centre

The UNDP Bratislava Regional Centre has been climate neutral since December 2011. To offset their 2010 emissions, they purchased 650 tons of Gold Standard Certified Emission Reductions (CERs) from the Ningxia Yinyi Wind Farm project. This was funded in full from energy savings and income from the Centre's rooftop solar panels that sells excess power to the grid.

Ningxia, a remote part in Northern China, is home to the first wind-farm in the area using locally produced generators comprised of 33 wind turbines each with a capacity of 1,500 kilowatts. By developing the electricity infrastructure, this project contributes to sustainable development in the area, including creation of permanent jobs.



The Bratislava Regional Centre green team behind their solar panels

### UNDP Bratislava Regional Centre

An excerpt from an interview with Henrieta Martonakova, UNDP Bratislava Regional Centre, Slovakia

The Bratislava Regional Centre Green Office Team was set up in 2004. Since then we have worked to reduce our greenhouse gas emissions and environmental impact, fully supported by the management and with active involvement of the staff.

We started with the 'low-hanging fruits', involving no-cost or low-cost measures such as recycling paper, glass and plastics, encouraging switching off of computers and lights, purchasing bio-products, discouraging use of plastic bottles and shopping bags, etc. Later we went for technical solutions such as installing window with

better insulation, energy saving bulbs, water-saving taps, solar panels, etc.

We know, however, that a considerable amount of emissions will remain, primarily through essential air travel needed to deliver the centre's services to the 25 countries and territories in the region. We decided to offset these remaining emissions, through purchasing carbon offsets from projects fulfilling three criteria:

1. UNFCCC's Clean Development Mechanism (CDM) or Joint Implementation projects;
2. Providing additional sustainable development benefits, as can be proven through a certification like the Gold Standard; and

3. Implemented in Europe and the CIS region. Hence, we gave priority to a Gold CER project. We could not source such a project in Europe or the CIS region so selected the Ningxia Yinyi Wind Farm project (see *Offsetting...* box above).



Henrieta Martonakova,  
Programme Manager of  
the Regional Poverty and  
Environment Initiative,  
UNDP Bratislava



## 9. Sustainability Management Systems

The work on Sustainability Management Systems (SMS) started with a request from the Senior Officials of the EMG in September 2010. As a response, the *Strategic Plan for Sustainability Management* was developed and approved in September 2011.

The Strategic Plan highlights the importance of moving away from current ad-hoc approaches, towards an integrated, approach based on a clear mandate from governing bodies. The plan requires UN agencies to undertake two actions:

- Implement agency focussed *Sustainability Management Systems* following a common approach for all UN entities; and,
- Identify possible options for a *Common UN Sustainability Office* to coordinate essential joint activities, such as communication, reporting, training, provision of technical support, etc.

The Strategic Plan complements the UN Climate Neutral Strategy by including other environmental impacts from UN operations. Under an SMS, the following issues need to be monitored as a minimum requirement, using appropriate indicators:

- Greenhouse gas emissions
- Water management
- Waste management
- Awareness-raising and/or training of staff members on environmental sustainability issues.

The work related to sustainability management will not be implemented overnight but will follow a phased approach.

Implementation will also take into consideration two developments underway in the UN system: a new Enterprise Resource Planning system (which will consolidate administrative applications) and the EMG led consultations on advancing the framework for environmental and social sustainability in the UN system. All three initiatives could play a key role in improving the efficiency and effectiveness of the UN.

*"FAO developed a draft Sustainability Management report, based on its ongoing efforts to develop an ISO 14001 based Environment Management System and its work with Emission Reduction Strategies. This helped us to present a clearer picture to stakeholders demonstrating the overall value of the various sustainability initiatives."*



Mitchell Hall, FAO

# 10. Agency focus

Each UN entity is finding its own approach to sustainability. We interviewed two Focal Points to find out how they're doing it.

## The inside story - UN Department of Field Support

An interview with Sophie Ravier at the UN Department of Field Support (DFS)

### **What is DFS doing to become more sustainable?**

The Department of Field Support (DFS), which supports field missions led by the Departments of Peacekeeping Operations (DPKO) and Political Affairs (DPA), is in charge of developing and coordinating environmental initiatives to reduce the field missions' footprints in host countries. Concrete examples are the possibility for the missions to procure photovoltaic systems, and the development of the Global Field Support Strategy which includes the design of water, wastewater, waste and energy (including renewables) management modules.

We are also studying the socio-economic impact of peacekeeping missions and their contributions to local economies, in order to minimize any possible unintended negative impacts.

### **What have been your biggest achievements so far?**

Certainly the adoption of an Environmental Policy for UN field missions stands out. This policy gives a clear framework and objectives for what UN field missions should do. It provides guidance on issues such as energy, water, waste (including hazardous waste), wild

animals and plants, as well as natural and historical heritage.

### **What have been your biggest challenges so far?**

Our biggest challenge is to implement the Environmental Policy across all missions. Environmental management is a new issue within peacekeeping, so we have very few experts in this field. Moreover, although the diversity of our staff is positive in many ways, it also creates a challenge in terms of having the same knowledge and practices of good environmental management expected by UN personnel, whether military, police or civilian.

Another challenge, I think, is convincing all colleagues that good environmental management is not something we do just to look good, but is key to operational efficiency, thus helping to achieve the mission mandate.

Sophie Ravier  
Environmental Officer  
UN DFS



### **Why does sustainability matter to DFS?**

A peacekeeping mission is usually deployed in the aftermath of a conflict, in countries that need to rebuild almost everything. It is therefore important that the mission leads by example, including on environmental issues. The objective being to have a lasting and positive impact once it leaves.

### **What are your hopes / plans for the future?**

We are developing training materials in coordination with UNEP and UNITAR. We hope to make training mandatory for all. We are also working on getting more environmental experts on board. We know that our main emission sources come from air travel, power generation and road transport, so we are working to reduce our emissions in those areas.

## The inside story - UNDP

An interview with Andrew Hudson at the United Nations Development Programme (UNDP)

### **Why does sustainability matter to your organization?**

UNDP is the UN's global development network, advocating change and connecting countries to knowledge, experience and resources and coordinating efforts to achieve the Millennium Development Goals (MDGs). More than a core environmental issue, climate change is seriously undermining efforts to achieve the MDGs. Its adverse impacts are already in evidence and are likely to disproportionately affect the developing countries where UNDP operates, particularly Least Developed Countries.

As UNDP Administrator Helen Clark said, "... *the brunt of the impact would be felt by poor and vulnerable people in developing countries. With little capacity to cope, many more would become malnourished and struggle to find water, and even be displaced. This highlights just how intertwined the tasks of addressing climate change, reducing global poverty, and reaching the Millennium Development Goals are.*"

### **What is UNDP doing to become more sustainable?**

UNDP, as a leading organization in the fight against climate change, is committed to comprehensively compiling its annual greenhouse gas inventory and to taking action towards reducing and, ultimately, offsetting its greenhouse gas emissions towards a target of institutional climate neutrality.

Over 60 UNDP offices, including headquarters, are already monitoring and reporting annual greenhouse gas emissions associated with our global operations. Many of these offices are taking small or big steps

towards reducing and offsetting their carbon emissions and other environmental footprints. UNDP is also carefully reviewing operational guidelines to further incorporate environmental considerations and to further build in-house capacity and support for 'greening' UNDP across the board.

### **What have been your biggest achievements so far?**

Clearly the biggest achievement from our work over the past five years is the number of engaged and enthusiastic staff members committed to 'greening' UNDP. Today, more than 300 UNDP staff throughout the world, working at all levels of the organization in both operations and programming are working to measure, reduce and offset UNDP's environmental footprint.

UNDP now has two entirely climate neutral offices: in addition to the Bratislava Regional Center which announced climate neutrality on 20 December 2011, UNDP headquarters will reduce its greenhouse gas emissions significantly over the next few years and, through complementary offsetting of remaining emissions with Gold Standard Certified Emission Reductions, will achieve climate neutrality as early as 2012. These two offices alone represent 17% of UNDP's emissions, so represent a significant step in moving the whole organization towards climate neutrality.

**Andrew Hudson**  
Head, Water & Oceans Governance  
Programme and Green Team Leader  
United Nations Development  
Programme (UNDP)



### **What have been your biggest challenges so far?**

UNDP operates in 177 countries and hence colleagues work under greatly varying geographic, climatic, infrastructural and political circumstances. We have offices without access to electricity grids, other offices are in island- or mountain-based regions requiring air travel for short distances, and other offices operate under very tight security standards or even from neighbouring countries. Therefore, there is no one-size-fits-all 'greening' solution for UNDP offices. An office-by-office analysis is required to identify appropriate and effective greening opportunities for each UNDP office.

### **What are your plans for the future?**

UNDP recently launched a 'green pilot' in which 10-15 UNDP additional offices will develop Greening Strategies for their offices. Participating offices vary in size, region, composition of environmental footprint and thematic focus and are expected to become regional showcases for making UNDP offices and operations more sustainable. Experience gained in these pilot offices and the ideas and feedback they provide will inform the development and design of a comprehensive UNDP Environmental Management System aimed at scaling up 'greening' across UNDP operations globally. We intend to develop and implement such a system within the next two years in order to comprehensively monitor, manage and minimize the environmental impact of global UNDP operations. UNDP will periodically report back to Greening the Blue as it continues to make progress towards institutional climate neutrality and broader greening.

# 11. Challenges

There remain many challenges in greening the UN, but progress is being made in various fronts. The challenges outlined here are the ones most frequently mentioned in by UN entities.

## Mandate

Last year's approval by EMG of a proposal for each UN entity to implement a Sustainability Management System is a significant step forward and will ensure that a consistent and cost-effective approach to sustainability is adopted throughout the UN. Yet the decisions made in September 2011 by the senior officials of the EMG indicate that the CEB should be informed of these efforts and might at some point make a decision in this regard. The forthcoming Rio+20-United Nations Conference on Sustainable Development could also give a new impetus to the UN internal sustainability. Meanwhile, the focus of EMG and SUN work next year will be on making the implementation of internal sustainability management practical and accessible to all agencies within their existing resources.

## Leadership

In any organisation, large or small, the integration of sustainability into daily work practices is made easier if it comes from the top. In 2011, the SUN team interviewed

twenty heads of UN agencies to seek their views on the importance of future-proofing their organizations. These interviews form the basis of a report to be launched in the first half of 2012, which will provide a vision of what a sustainable UN might look like. The value of this work has been in the process of focusing the attention of UN leaders on issues related to internal sustainability. It will be also very useful in preparing for a common UN sustainability office (see next chapter).

## Budgeting

The current budgeting structures hinder investment in sustainability initiatives, which often require more than a biennium in order to see a return on investment. The restrictions on carrying forward unspent balances from one budgetary cycle to the next, as well as those on moving funds between capital budgets and operating budgets, limit opportunities for innovation, such as energy saving solutions, and can also prevent financial savings.

Today's tough economic climate is making it increasingly difficult to secure investment for green initiatives. With budgets under mounting strain, it is not surprising that UN managers and staff are reluctant to embark upon innovative and less familiar practices that require upfront investments, even when they could bring short to medium

terms savings. Well-documented case studies indicating where savings could be achieved through sustainability investments (energy saving, resources efficiencies, etc.) speak more eloquently than lengthy reports. The web portal Greening the Blue will continue to share such examples and make internal sustainability more familiar to UN decision makers.

## Finding the right balance

There is also the ongoing challenge of keeping messages fresh and relevant. In an age when channels of communication are expanding exponentially, it is easy to risk information overload. In particular there is a danger of staff becoming immune to terms such as 'sustainability'. We need to ensure agencies are empowered to engage their audiences with creative and meaningful messages on sustainability. These should not be the "fashion" of the moment but be founded in daily work practices. SUN is currently working on a sustainability tutorial that will be published in 2012 to inform staff members about sustainability and how to put it in practice in their day-to-day office life.

## 12. Next steps

Despite the challenges just outlined, the UN system must position itself as a leader in the pursuit of sustainability. The work undertaken by UN staff can provide inspiration and set a precedent for environmental management and resource saving activities, not only for member states but also for organizations in both the public and private sector across the world.

A first step on this path is to ensure that sustainable development principles are integrated into every aspect of UN policy and day-to-day work practices. The UN is undertaking a special effort to act as 'One' on many fronts. The joint work so far undertaken on greenhouse gas emissions reduction and environmental sustainability is an excellent example of this.

In September 2011, the senior officials meeting of the Environment Management Group, made two important decisions for the UN system<sup>3</sup>:

1. First, they approved a **Framework for Enhancing Environmental and Social sustainability in the UN system**. This framework provides a holistic approach for enhancing sustainability of the UN's work by internalizing sustainability principles into policies, programming and operations in a systematic and coherent manner. The framework also suggests the need for a common and knowledge sharing function to facilitate the exchange of practices.
2. **Environmental sustainability management:** The Senior Officials also committed to move their entities towards the adoption of environmental sustainability management systems, and agreed on the need for a common UN sustainability office to act as a guarantor and coordinating hub for the UN system's (internal) sustainability efforts.

<sup>3</sup> See: <http://www.unemg.org/>

In light of these commitments, the next steps must include:

- a. Design of a system that initially focuses on environmental sustainability management and is flexible enough to respond to the diverse capacities and needs of all agencies. This could range from a system designed for those who are interested in a comprehensive program, such as ISO 14001, to simpler models for those who prefer to start with small incremental steps. Also important is a reporting framework that is integrated with other reporting mechanisms to minimize demands on staff and avoid duplication of work.
- b. Providing to the next EMG senior officials meeting, in September 2012, an expanded range of options for the common UN sustainability office, including its organisational structure, terms of reference and funding.

The UN system has come a long way since it took its initial steps towards climate neutrality three years ago. Motivated now by a vision that looks beyond climate neutrality, and strengthened by the growing collaboration and synergies on sustainability matters across the UN, the agencies that make up this movement are already thinking of a future report called "Moving towards a Sustainable UN".

# Annexes

## Annex I: Statement adopted by the UN System Chief Executives Board for Coordination (CEB) at its October 2007 session

### Moving towards a climate-neutral UN

*Having taken* note of the report entitled “Strategy for a climate-neutral UN” prepared by the Environment Management Group;

*Conscious* of the need for our broader engagement to integrate the principles of sustainable development into our daily work routines and activities;

*Recognizing* that leading by example will contribute to the ability of the UN to better support developing countries – those most vulnerable to climate change;

*Commending* efforts by those who have already taken initiatives to offset their emissions before the adoption of this common approach; and

*Noting* that there can be significant cost savings to the UN from energy efficiency and other mitigation measures;

We, the Heads of the UN agencies, funds and programmes, hereby *commit* ourselves to moving our respective organizations towards climate neutrality in our headquarters and UN centres for our facility operations and travel.

In particular, by the end of 2009 we will:

- Estimate our greenhouse gas emissions consistent with accepted international standards;
- Undertake efforts to reduce our greenhouse gas emissions to the extent possible;
- Analyse the cost implications and explore budgetary modalities – including consulting with governing bodies as needed – of purchasing carbon offsets to eventually reach climate neutrality.

We make this commitment with a view to achieving the goal of climate neutrality at a date to be set in the future, by reducing emissions first and then offsetting the remainder through the purchase of offsets from the Clean Development Mechanism, that meet high international standards of additionality, transparency and verification and which promote sustainable development in developing countries.

We support the further development and implementation of a UN system-wide strategy for reaching climate neutrality; for monitoring our collective efforts; and for reporting back on progress made and difficulties encountered.

- October 2007, New York

## Annex II: Greenhouse gas inventory methodology

The October 2007 decision of the CEB limits the boundary of the UN Greenhouse Gas (GHG) Inventory to emissions from facility operations and travel, which can be influenced by management-level decisions. The inventory covers all six Kyoto protocol gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>. The emissions are reported both separately for each GHG and aggregated as carbon dioxide equivalents (CO<sub>2</sub>eq). The common minimum boundary of the inventory excludes the following activities:

- Emissions associated with decisions for which individual staff members are responsible and that relate to their personal sphere, for example emissions from personnel commuting to and from the work place.
- Military activities conducted under the auspices of the UN.
- Emissions from projects implemented by external entities.
- Emissions due to couriers and mail.
- Embodied carbon in products or equipment used by the UN, for instance food, beverages, paper and computers.

Though these are excluded from the common minimum boundary, the recommended best practice is to voluntarily document any sources of greenhouse gas emissions that are not included in the common minimum boundary under "Optional Emissions."

### Methodology for Estimating Emissions of GHGs

#### 1. General approach

The UN greenhouse gas inventory has been compiled and reported using a suite of tools, databases and guidelines, following internationally recognised standards, but altered to suit UN specific needs. Structured spreadsheets in English, French and Spanish are used to collect data.

The methodologies and databases are based on guidance from the Greenhouse Gas Protocol (<http://www.ghgprotocol.org>), the IPCC, the US EPA, the International Energy Agency and a range of other internationally recognized sources. Energy content of fuels or energy-based emission factors<sup>4</sup> are based on Lower Heating Values (LHVs) or net calorific values of the fuel<sup>5</sup>. Locally available Emission Factors are more accurate and representative of reality, than more generic national or international averages. Hence, wherever they were available, local Emission Factors were given preference. The general method used, with a few exceptions, is:

$$\text{Amount of GHGs emitted} = \text{Activity Data} \times \text{Emission Factor}$$

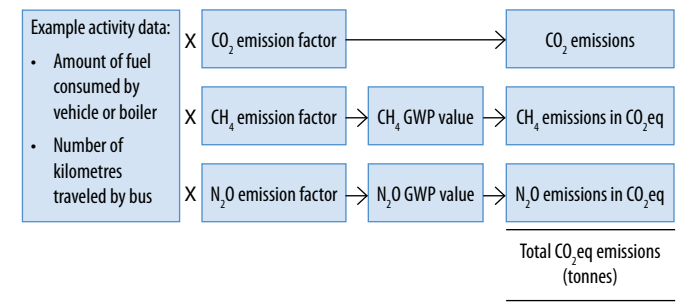
<sup>4</sup> Emission factors are coefficients that describe the amount of a specific GHG that is released from doing a certain activity, such as the mass of CO<sub>2</sub> released by driving a vehicle for a kilometre, or by burning a tonne of fuel in a boiler.

<sup>5</sup> Heating values measure the energy content of fuels and are expressed using either Higher Heating Values (HHVs), also known as Gross Calorific Values, or Lower Heating Values (LHVs), also known as Net Calorific Values. Before emissions can be calculated properly, the fuel consumption data and corresponding emission factors must be expressed in the same way, that is, either in HHV units or in LHV units, but not both.

Emission estimates of individual gases are multiplied by their Global Warming Potential (GWP) values, to create common comparable units – CO<sub>2</sub> equivalent (e.g, tonnes CO<sub>2</sub>eq of CH<sub>4</sub>). The total climate impact from an emission category or a reporting office or facility is thus measured as CO<sub>2</sub> equivalent.

For each emission category, the CO<sub>2</sub>eq of all relevant greenhouse gases (GHGs) are summed up, to find the total emissions. For example, in the case of stationary combustion in a boiler, the CO<sub>2</sub>eq of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions are summed up to yield the total emissions.

These values for all emission categories are aggregated to the UN entity level to determine the total emissions of each UN entity, and further to the UN level to find the overall impact of the UN system.



## 2. Emission sources

The section below describes the steps used to estimate the mass of relevant GHGs emitted from the various categories. The conversion to CO<sub>2</sub>eq and their aggregation is done using general procedures described earlier and is not repeated below.

### 2.1 Purchased electricity

Emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from electricity purchased from external sources were calculated using annual purchase quantity and country-specific emission factors based on average mix of fuels used in electricity production. This method was implemented separately for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O.

*Annual GHG emissions (e.g., kgCH<sub>4</sub> emissions) = Amount of electricity purchased (e.g., kWh per year) X Country-specific emission factor (e.g., kgCH<sub>4</sub> per kWh)*

Where reporting offices did not have access to electricity consumption data, proxies were used. For example, when an office shares space in a building which only meters electricity overall but not for individual offices, the proportion of the building that is occupied by the reporting entity is used as a proxy for the proportion of the total electricity used by that entity.

### 2.2 Stationary combustion

This refers to emissions from the combustion of fuels in boilers, diesel generators and other fuel technologies based in a fixed location. Emissions were estimated by multiplying annual consumption of fuel with default emission factors for CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub>.

*Annual GHG emissions (e.g., kgN<sub>2</sub>O per year from a diesel generator) = Amount of fuel combusted (e.g. litres of diesel combusted per year) × Fuel- and GHG-specific emission factor (e.g. kgN<sub>2</sub>O/litre of diesel)*

### 2.3 Refrigerants

Refrigeration and Air-Conditioning (RAC) equipment, such as refrigerators, freezers, cold storages and air conditioners, leak refrigerants during installation, maintenance, operation and disposal. While the amounts are generally small, the GWPs of these gases are high, and therefore their influence on climate change cannot be ignored. Perfluorocarbons (PFCs) and hydrofluorocarbons (HFCs) are two classes of refrigerants with high GWPs that are covered by the Kyoto Protocol and come within the common minimum boundary of the UN GHG Inventory. Annual purchase quantity of the refrigerants (HFCs and PFCs) is assumed to be equal to annual leakage quantity of the refrigerants and used as its proxy.

*Annual GHG emissions per year from a refrigerant (e.g., kgCO<sub>2</sub> per year from leakage of HFC134a) = Annual purchase quantity of the refrigerant (e.g., kgHFC134a) × HFC-specific GWP (i.e., kgCO<sub>2</sub>eq per kg HFC134a)*

In cases where the refrigerant type is unknown, it is assumed to be HFC134a as this is considered to be the most common refrigerant in the UN system. If the refrigerant quantity purchased is unknown, an area-based standard leakage factor has been applied (e.g, mass of HFC leaked per square metre of air-conditioned area). Refrigerants that are Ozone Depleting Substances and have significant GWPs, such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), do not come under the common minimum boundary of the UN GHG Inventory and are reported under Optional Emissions.

### 2.4 Purchased steam

Emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O due to steam purchased from external suppliers were estimated by converting the annual steam purchase quantity into equivalent fuel quantity consumed in the boiler at the supplier's premises.

This method was implemented separately for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O.

*Annual GHG Emissions (e.g., kgCO<sub>2</sub> per year) = Annual steam consumption in energy terms (e.g., kilojoules per year/0.8) × Fuel- and GHG- specific emission factor (e.g., kgCO<sub>2</sub> per kilojoule of natural gas)*

Here, 0.8 refers to the default fuel to steam conversion efficiency of 80% assumed. Wherever the fuel type was not known, natural gas was assumed.

### 2.5 Air travel

The ICAO Carbon Emissions Calculator is used to calculate CO<sub>2</sub>eq emissions from air travel. The calculator uses the best publicly available industry data and takes into account factors such as aircraft types, route specific data, passenger load factors, passenger to cargo ratio and class of travel. Premium class travellers are assigned double the emission of economy class passengers. The ICAO tool reports on the emission of CO<sub>2</sub> only and does not account for the emission of other GHGs.

### 2.6 Public transport

Emissions of CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O were estimated from the use of public transport such as passenger trains, buses, cars, ferry by personnel on official travel. Vehicle type and distance (km) traveled on a per passenger basis was used along with default vehicle specific emission factors, to calculate emissions.

*Annual GHG emissions (e.g. kgCH<sub>4</sub> per year for train travel) = distance travelled (eg. passenger-kilometre/year by train) × vehicle- and GHG-specific emission factor (e.g. kgCH<sub>4</sub> / passenger-kilometre for trains)*



## 2.7 Mobile Sources

GHG emissions from mobile sources (vehicles) include CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from UN-owned or leased vehicles such as cars, trucks, buses, trains, marine vessels and airplanes. The annual consumption of fuel and/or distance travelled, as well as the vehicle type/transport mode have been used to estimate emissions. The emissions from vehicle air conditioning units have also been estimated, with the refrigerant used assumed to be HFC134a.

### For entities that reported fuel consumption data

**Annual GHG emissions** (e.g. kgCO<sub>2</sub> per year) = amount of fuel combusted per year (e.g. litres per year) × fuel and GHG-specific emission factor (e.g. kgCO<sub>2</sub> per litre for gasoline)

This method was implemented separately for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O.

### If distance traveled data is provided

**Annual GHG emissions** (e.g. kgCO<sub>2</sub> per year) = distance travelled by vehicle per year (e.g. km per year) × fuel economy factor by vehicle type (e.g. litre per km) × fuel and GHG-specific emission factor (e.g. kgCO<sub>2</sub> per litre)

### If the reported data covers both fuel consumption and distance travelled

The methodology based on fuel consumption figures was used.

## 2.8 Process

Process-related emissions include those from physical or chemical processes, as opposed to emissions from fuel combustion or fugitive emissions of refrigerants. Annual releases of the six Kyoto Protocol gases (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>) were accounted for.

## 2.9 Optional emissions

Emissions from sources outside the common minimum boundary of the UN greenhouse gas inventory are reported under Optional Emissions. Apart from the six Kyoto Protocol gases, this covers ozone depleting refrigerants with significant global warming potential, which are outside the common minimum boundary of the UN GHG Inventory such as CFCs and HCFCs. As these emissions could be from various sources, no specific methodology has been prescribed. The quantity of the GHGs is reported directly and as CO<sub>2</sub> equivalents.

## 3. Data Quality

Reviews of the methodologies, the data and the process are undertaken annually and the agencies are progressing with the preparation of their Inventory Management Plans. Several measures were taken to make data collection easier, based on feedback from reporting staff. Some of the more rigorous methodologies were substituted with simpler methods. Where data was not readily available, estimates were based on clearly defined assumptions and proxies. Emissions due to combustion of bio-fuels in equipments and vehicles have been zeroed out in the results. Some of these measures have resulted in reduction of accuracy of the results, but has resulted in increased number of agencies reporting the data.

## Annex III: Acronyms

CEB	UN Chief Executives Board for Coordination	CBD	Secretariat of the Convention on Biological Diversity	UNFCCC	United Nations Framework Convention on Climate Change
CFC	Chlorofluorocarbon	CTBTO	Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization	UNFPA	United Nations Population Fund
CH <sub>4</sub>	Methane	DFS	Department of Field Support	UN-HABITAT	United Nations Human Settlements Programme
CO <sub>2</sub>	Carbon dioxide	DPA	Department of Political Affairs	UNHCR	United Nations High Commissioner for Refugees
CO <sub>2</sub> eq	Carbon dioxide equivalent	DPKO	Department of Peacekeeping Operations	UNHQ	United Nations Headquarters
EMG	Environment Management Group	ECA	Economic Commission for Africa	UNICEF	United Nations Children's Fund
ERP	Enterprise Resource Planning	ECE	Economic Commission for Europe	UNIDO	United Nations Industrial Development Organization
ERS	Emission Reduction Strategy	ECLAC	Economic Commission for Latin America and the Caribbean	UNIFEM	United Nations Development Fund for Women
GHG	Greenhouse Gas	ESCAP	Economic and Social Commission for Asia and the Pacific	UNISDR	United Nations International Strategy for Disaster Reduction
GWP	Global Warming Potential	ESCWA	Economic and Social Commission for Western Asia	UNITAR	United Nations Institute for Training and Research
HCFC	Hydrochlorofluorocarbons	FAO	The Food and Agricultural Organization of the United Nations	UNODC	United Nations Office on Drugs & Crime
HFC	Hydrofluorocarbon	IAEA	International Atomic Energy Agency	UNOG	United Nations Office in Geneva
HHV	Higher Heating Value	ICAO	International Civil Aviation Organization	UNON	United Nations Office in Nairobi
HLCM	High Level Committee on Management	IFAD	International Fund for Agricultural Development	UNOV	United Nations Office in Vienna
HLCP	High Level Committee on Programmes	ILO	International Labour Organization	UNOPS	United Nations Office for Project Services
HVAC	Heating, Ventilation and Air-Conditioning	IMO	International Maritime Organization	UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
IATN	Inter-agency Travel Network	ITC	International Trade Centre	UNU	United Nations University
IMG	Issue Management Group	ITU	International Telecommunication Union	UNV	United Nations Volunteers
IMP	Inventory Management Plan	OHCHR	Office of the High Commissioner for Human Rights	UN WOMEN	United Nations Entity for Gender Equality and the Empowerment of Women
IATN	Inter-agency Travel Network	UNAIDS	Joint United Nations Programme on HIV/AIDS	UNWTO	World Tourism Organization
INFM	Inter-agency Network of Facilities Managers	UNCCD	United Nations Convention to Combat Desertification	UPU	Universal Postal Union
IPCC	Intergovernmental Panel on Climate Change	UNCTAD	United Nations Conference on Trade and Development	UNW	United Nations Women
IVCA	International Visual Communications Association	UNDP	United Nations Development Programme	WBG	World Bank Group
JIU	Joint Inspection Unit	UNEP	United Nations Environment Programme	WFP	World Food Programme
kg	Kilogram	UNESCO	United Nations Educational, Scientific and Cultural Organization	WHO	World Health Organization
km	Kilometre			WIPO	World Intellectual Property Organization
kW	Kilowatt			WMO	World Meteorological Organization
kWh	Kilowatt-hour			WTO	World Trade Organization
LHV	Lower Heating Value				
N <sub>2</sub> O	Nitrous Oxide				
PFC	Perfluorocarbon				
RAC	Refrigeration and Air-Conditioning				
SF <sub>6</sub>	Sulfur hexafluoride				
SUN	Sustainable United Nations				
US\$	United States Dollar				

## Annex IV: Who's who

### The United Nations System Chief Executives Board for Coordination (CEB)

The CEB is the highest-level coordination mechanism of the UN system. It brings together the leaders of the UN system organizations under the chairmanship of the Secretary-General, and aligns the strengths, capacities and expertise of these organizations to enhance coherence and to ensure that the UN system can deliver as one at the global, regional and country levels, within its various intergovernmental mandates.

### The Environment Management Group (EMG)

The EMG is a UN system-wide coordination body. Its membership consists of the specialized agencies, programmes and organs of the UN, including the secretariats of the Multilateral Environmental Agreements plus the Bretton Woods institutions and the World Trade Organization. It is chaired by the Executive Director of UNEP and is supported by a secretariat hosted by UNEP in Geneva.

### The Issue Management Group (IMG) for Environmental Sustainability Management

The IMG for Environmental Sustainability Management is one among the issue based networks of UN agencies constituted by the EMG. The IMG includes representatives from most UN entities, each nominated by their Head of Organization. The IMG focal points meet several times a year to agree on UN-wide processes for improving the sustainability performance of the UN.

### The Sustainable United Nations (SUN) facility

The SUN facility was established in 2008 with the aim of supporting the UN system, as well as organizations outside the UN, to move towards climate neutrality. Today, SUN supports the IMG on Environmental Sustainability Management and leads the UN's efforts to measure and reduce its environmental impacts in cooperation with the EMG. SUN also manages the *Greening the Blue* website. The SUN team sits within UNEP and is based in Geneva.

### High Level Committee on Programmes (HLCP)

HLCP is the principle mechanism for system-wide coordination in the programme area in the UN system. It is responsible to the UN Chief Executives Board for Coordination (CEB) for fostering coherence, cooperation and coordination on the programme dimensions of strategic issues for the UN System.

### High Level Committee on Management (HLCM)

HLCM promotes harmonization of business practices across the UN system including general management issues, to ensure management coherence from global to country level. It is charged with identifying and analysing administrative management issues of common concern, which require a system-wide response and is authorised to take decisions on behalf of the Executive Heads and to identify, promote and coordinate management reforms that will improve services, achieve productivity improvements and increase efficiency and effectiveness across the UN system.

### Inter-agency networks

A number of inter-agency groups exist to bring together experts from different UN entities to share their experiences. These include networks for procurement, travel, communications and facilities management. The status of these networks varies. The procurement network for example, reports to the HLCM, while the travel network is more loosely connected to the formal structures in UN.

## Annex V - Detailed emissions table

	Mobile Sources (Vehicles)	Stationary combustion	Refrigerants	Purchased electricity	Purchased steam	Air travel	Public transport	Process	Optional emissions
UN Agency	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq
CBD**	3	0	0	153	1,710	1,555	5	0	79
CTBTO	11	2	81	587	330	1,756	6	0	15
DFS**	172	238	88	2,300	0	276	0	0	0
DPA**	4,937	6,032	460	510	0	6,289	0	0	920
DPKO**	153,391	254,338	65,329	36,993	0	456,010	6	0	7,017
ECA	0	56	20	165	0	4133	0	0	0
ECLAC	28	238	0	865	0	2,737	0	0	130
ESCAP	22	54	20	5,485	0	1,184	0	0	0
ESCWA	28	18	92	3,342	0	658	18	0	0
FAO	2,194	1,497	306	11,751	0	29,709	15	0	82
IAEA	3	859	630	4,090	5,028	14,470	232	0	53
ICAO	63	1,070	204	2,247	0	2,454	42	0	185
IFAD	16	267	20	1,500	0	3,796	0	0	0
ILO	625	117	140	1,853	2,653	9,550	62	0	16
IMO	4	709	75	2,236	0	1,393	30	0	0
ITC	0	12	0	150	00	3,285		0	0
ITU	14	0	282	207	971	3,390	19	0	0
OHCHR	24	259	27	62	0	4,787	6	0	0
OPCW	51	79	16	1,035	403	3,573	5	0	0
UNAIDS	692	548	68	986	37	4,313	33	0	3
UNCCD	1	0	19	0	67	318	1	0	0
UNCDF	0	0	4	190	30	175	0	0	0
UNDP	8,779	3,933	1,951	11,844	1,723	25,849	437	0	0
UNEP	88	24	19	610	13	12,710	41	0	0
UNESCO	4,705	1,208	1,425	8,128	317	10,589	206	3	663

	Mobile Sources (Vehicles)	Stationary combustion	Refrigerants	Purchased electricity	Purchased steam	Air travel	Public transport	Process	Optional emissions
UN Agency	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq	tonnes CO <sub>2</sub> eq
UNFCCC	11	0	87	0	51	4,941	28	0	439
UNFPA	3,429	695	546	3,225	277	13,503	81	0	0
UN-Habitat*	190	13	13	173	0	3,661	9	0	0
UNHCR*	9	194	21	88	0	2,281	0	0	0
UNHQ	183	21	764	23,520	22,948	29,126	349	0	50
UNICEF**	4	0	0	3,245	0	6,316	0	0	0
UNIDO*	1,541	342	97	1,507	585	7,015	40	0	67
UNITAR §	0	11	2	3	0	478	0	0	0
UNOG <sup>1</sup>	60	3,196	36	148	0	9,638	27	0	0
UNON	191	66	77	1,064	0	863	0	0	0
UNOPS	1,858	2,768	420	1,320	8	4,565	116	0	18
UNOV (inc. UNODC)	0	0	76	1,290	925	3,925	0	0	50
UNRWA	7,431	2,295	79	2,371	0	447	0	0	651
UNU	1	281	19	889	0	318	4	0	0
UNV	3	0	0	0	121	282	10	0	2
UNWomen* (UNIFEM)	10	8	32	710	0	2,838	0	0	0
UNWTO	26	103	9	149	0	508	2	0	0
UPU*	6	641	22	26	0	359	7	0	355
WFP	32,464	15,420	1,122	8,279	0	22,422	339	0	953
WHO	15	2,458	110	890	0	26,846	0	0	48
WIPO	18	1,498	249	1,479	0	3,819	7	0	0
WMO*	2	523	0	56	0	2,750	0	0	0
World Bank (incl. IFC)	2,402	3,631	2,653	72,461	895	137,721	0	0	0
WTO	13	997	0	94	0	4,955	3	0	0
<b>TOTAL</b>	<b>225,719</b>	<b>306,717</b>	<b>77,707</b>	<b>220,273</b>	<b>39,092</b>	<b>894,537</b>	<b>2,187</b>	<b>3</b>	<b>11,800</b>
<b>TOTAL minus DPKO</b>	<b>72,328</b>	<b>52,379</b>	<b>12,377</b>	<b>183,280</b>	<b>39,092</b>	<b>438,527</b>	<b>2,180</b>	<b>3</b>	<b>4,783</b>

Notes: \* 2008 data \*\* 2008 data amended for available locations, § Air travel data extracted from UNOG report, <sup>1</sup> UNOG data includes OCHA, UNCTAD, UNECE, UNISDR  
The value 0 indicates one of the following: no emissions, data not reported, data is not available

This report is the third report of its kind since 2009 when the UN first published details of its annual carbon footprint.

With a foreword from UN Secretary-General Ban Ki-moon, and a preface from UNEP's Executive Director Achim Steiner, this report explains the UN's ambition towards climate neutrality. It details the greenhouse gas emissions from UN agencies in 2010 and looks back over 2011, explaining and illustrating efforts which are happening across the world, with the UN system to reduce carbon emissions.

By measuring and seeking to reduce its carbon emissions the UN aims to practice what it preaches and serve as an inspiration to organizations across the world.

**More Information: [www.greeningtheblue.org](http://www.greeningtheblue.org)**

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