

The UN Greenhouse Gas Calculator methodology is explained in detail in its user manual¹. The calculator and the user guide provide step-by-step instructions on how to prepare an inventory according to the common boundary agreed by the UN system for its GHG accounting. After the required activity data are entered into the tool, the GHG footprint is automatically estimated by applying a set of default emission factors, allowing flexibility to enter more specific data where available.

International Civil Aviation Organization (ICAO) Aviation Carbon Emissions Calculator

The International Civil Aviation Organization (ICAO), one of the UN system organizations, has developed a methodology for calculating the carbon dioxide emissions from official air travel. A tool for calculating emissions is available on the ICAO website together with a description of the methodology underpinning the Calculator. The UN system organizations have chosen to use this tool for estimating emissions from air travel as there can be very significant differences in emissions for the same trip travelled via different routings². A special interface to the ICAO tool was developed by the ICAO secretariat for specific use by the UN system organizations, to facilitate the aggregation of travel data. This tool complements the UN Greenhouse Gas Calculator. The methodology applies the best publicly available industry data to account for various factors such as aircraft types, route specific data, passenger load factors and cargo carried. The methodology makes a distinction between cabin class factors “economy” and “premium”, and weights these with a ratio of 1:2.

Non-CO₂ emissions from air travel

The full climate impact of air travel goes beyond the effect of CO₂ emissions alone. For example, aircraft emit nitrogen oxides (NO_x) which tend to increase the level of ozone and reduce the level of methane, both of which are greenhouse gases. Aircraft also contribute to water condensation in the atmosphere which has a warming effect. There is still considerable scientific uncertainty about the scale and dynamics of these effects.

The “Special Report on Aviation and the Global Atmosphere”, prepared by the Intergovernmental Panel on Climate Change (IPCC) in 1999, estimated the overall climate impact of aviation to be between two to four times larger than that of the CO₂ emissions alone. It used a Radiative Forcing Index (RFI) in these estimates. The RFI for aircraft in 1992 was estimated to be 2.7 with

aviation’s total contribution to radiative forcing being approximately 3.5 per cent.

More recent data in the 2007 IPCC “Fourth Assessment Report” suggests an RFI of 1.9 for aircraft in 2005 and aviation’s contribution being at 3 per cent. Although reference to the RFI is made, the report states that the RFI should not be used as an emission metric since it does not account for the different residence times of different forcing agents. Other metrics such as Global Warming Potential (GWP) and Global Temperature Potential (GTP) could be considered as alternatives. However, to date, the IPCC has not provided further guidance on these issues, but work is underway in the Fifth Assessment Report.

In its decision on how to consider the effect of non-CO₂ gases, in the EMG, the UN system organizations weighed up various factors, including scientific uncertainty, risk to reputation, the need to follow the precautionary approach, the need to maintain high environmental standards, and legal and budgetary considerations. A collective decision was taken, on a provisional basis and until further guidance is provided by the IPCC, in keeping with the current WRI/WBCSD methodology, only to take into account the effects of CO₂ from air travel.

The ICAO and UNEP secretariats were also requested to convene a meeting of experts who will be identified based on, inter alia, recommendations of the IPCC. The meeting will aim to provide further guidance as a matter of priority on the question of an appropriate metric to account for all GHG effects from aviation, while waiting for additional guidance from the IPCC. Preparations are underway to convene this meeting in spring 2010.

The decision to account provisionally only for CO₂ emissions has resulted in some UN organizations describing their current approach as carbon neutral (as opposed to climate neutral), but the goal of reaching climate neutrality remains in place.

Alternative reporting format

An alternative reporting format was made available to UN agencies which had already concluded their GHG inventory for 2008 before the inventory tools were available or where other means of compiling the inventory had been used. If methods other than that agreed by the WRI/WBCSD were used, the assumptions had to be explained in the individual organization’s inventory management plan. Information on emissions for each of the Kyoto Protocol gases, kilometres travelled, number of trips and kWh electricity used etc. was to be entered in this pre-formatted Excel spreadsheet. Data submitted in this alternative format was treated in the same way as data submitted in the UN GHG Calculator inventory tool.

2. The World Bank Group continues to use the WRI/WBCSD methodology with the latest DEFRA emission factors to calculate its emissions from business travel.

Inventory boundary

The UN system has agreed on a common minimum boundary for its GHG inventory, which specifies activities, emission sources and GHGs, as described below.

Activities

The October 2007 decision of the UN system Chief Executives Board (CEB) limits the boundary of the UN to facility operations and travel. The UN agencies, funds and programmes therefore accounted for GHG emissions from headquarters, regional and administrative centres and field offices. Emissions from activities that are funded both through the regular and extra-budgetary sources are included in the UN's boundary.

Among others, the following are not included in the UN minimum agreed boundary:

- Emissions from staff commuting to work;
- Emissions from projects implemented by external entities or from grants to other institutions;
- Emissions from electricity losses, courier, mail, printing and shipping;
- Embodied carbon in for instance food, beverages, paper and computers; and
- Emissions from construction.

Emission sources

The GHG inventory of UN system organizations includes as a minimum the following emission sources:

- Mobile fuel combustion, such as emissions from official air, rail or road travel;
- Stationary fuel combustion, such as energy consumption in buildings for electricity, heating, air conditioning, hot water and cooking, and so on; and
- Fugitive emissions, such as leakage of GHGs from refrigeration and air-conditioning equipment.

If for some reason the organization was not able to include the above in the inventory, the omission was to be documented and an explanation provided in the inventory management plan.

Greenhouse gas coverage

The GHG Protocol requires reporting of the six GHGs covered by the Kyoto Protocol, namely CO₂, CH₄, N₂O, HFC, PFC and SF₆. There are no emissions of SF₆ from UN activities. The methodology requires emissions to be reported separately for each GHG as well as aggregated as carbon-dioxide equivalent (CO₂ eq). There are several areas where it has been difficult to report on all GHGs. As indicated above, in 2008, the UN's methodology does not take into account the non-CO₂ effects of aviation, although efforts were underway

to develop appropriate metrics and approaches to resolve this issue. Similarly, the default national emission factors that were available for public transport and electricity production did not include gases other than CO₂.

The UN's methodology allows the use of proxies to estimate GHG emissions from "small" offices, which it has defined as offices with fewer than five staff members. If such offices have been excluded altogether from the inventory, the data gap must be reported with an indication of plans on how to account for these small offices in the future.

To assess inventory completeness, organizations were asked to identify and report the data gaps in coverage of emissions under the minimum agreed boundary. Whenever data were not readily available, organizations had the option of estimating GHG emissions based on clearly defined assumptions and proxies (kWh per square metre of office floor space). Such proxies can be derived from real data collected from similar buildings in the region and are discussed in the individual agencies inventory management plans.

Emissions from sources outside the UN minimum agreed boundary

UN system organizations have been allowed the flexibility to report on an optional basis on emissions from sources that lie outside the UN minimum agreed boundary, provided an explanation is provided in the inventory management plan. These could include for example emissions from commuting, waste and paper use. If organizations chose to do so, emissions from these source categories should also be reported in subsequent years for the purpose of time series comparison.

UN GHG inventory database and reports

According to the system in place in 2008, UN system organizations have provided their GHG data in several standardized Calculators (the UN Greenhouse Gas Calculator, the UN Interface to the ICAO Carbon Emissions Calculator, and a spreadsheet for reported data using other methods of compiling the inventory). To accommodate the UN system's specific GHG reporting needs, DFS/ICTD developed and designed a customized "data-mining tool" to extract data from the workbooks and store all the information in a common GHG database. DFS/ICTD has also made available a web-portal where registered users can generate customized GHG reports directly from the Internet.

Experience and results

Data results and statistics

The climate neutral focal points received the standardized methodology, tools and templates in April 2009, together with training sessions on their use. Over the following four months, the forty-nine UN system reporting entities collected data and submitted GHG inventories to the EMG secretariat using the standardized reporting formats. The result is a comprehensive overview of source categories and emissions.

The proposed methodology and tools were used by all participating organizations except four organizations, which already had a GHG data collection system in place. Those submitted their results in the alternative format. Since the methodologies used by those organizations were based on the GHG Protocol, like the other UN GHG Calculator, their approaches are similar and therefore compatible.

The aggregated GHG emissions of the UN system organizations for their facility operations and travel in 2008 are estimated at approximately 770 000 tonnes of CO₂ equivalent. An estimated additional one million tonnes of CO₂ equivalent are emitted from operations related to peacekeeping missions, including uniformed personnel. The average annual greenhouse emissions across the UN system are approximately 8.3 tonnes of CO₂ equivalent per staff member³.

Total GHG emissions vary across organizations due to their different sizes and types of operations. The largest source of GHG emissions for the UN system organizations is air travel, accounting on average for almost 50 per cent of total emissions, one third are from electricity and heating of facilities, twelve per cent are from official vehicles and five per cent from refrigeration and air conditioning. There is significant variation between organizations, with air travel resulting in over 90 per cent in some cases down to a few per cent in others.

The use of official vehicles is more common in country offices. There is also variation in GHG emissions from facilities, with average emission factors from electricity production ranging, for example from 0.0013 kg CO₂ / kWh in Mozambique to 0.9434 kg CO₂ / kWh in India.

3. The term "staff member" is used in this inventory process to include all personnel contributing to an organization's footprint and therefore also includes short-term staff, consultants and interns. Numbers may therefore differ from those provided in other official documents, depending on whether these refer to posts established in budgets or other definitions.

Furthermore, the local climatic conditions, the extent of heating and air-conditioning, and the energy efficiency of the buildings play an important role. These factors increase the share of total emissions from facilities and vehicles.

Carbon dioxide is the most significant GHG, accounting for more than 90 per cent of total GHG emissions. This result reflects the fact that fossil fuel combustion is the principal source of GHG emissions. Another reason is that other GHGs, such as HFCs and PFCs have probably been undervalued, because of limited data availability. Furthermore, some energy providers have provided data to organizations only in aggregated CO₂ eq format. In the latter cases, these emissions have been counted as CO₂ emissions in the inventory.

Completeness and quality

Organizations generally succeeded in reporting their GHG emissions required under the minimum agreed boundary. However, there are variations in quality and completeness.

The highest quality data were those which were systematically collected and recorded, such as air travel and electricity consumption. There were often difficulties obtaining data for fugitive emissions from air-conditioning and refrigeration, because maintenance of air-conditioning equipment is often outsourced and various types of equipment and refrigerants are used in one facility.

Air travel data

Although air travel data were most of the time readily available through the ERP system or servicing travel agent, difficulties were experienced by some organizations in obtaining the data in the required data format. The ICAO Carbon Emissions Calculator takes into account the actual routing of a flight rather than just the distance between origin and destination in order to better estimate emissions resulting from the trip. Furthermore, data need to be expressed in three-letter IATA airport codes. It also differentiates emissions created by a business-class flight and one in economy. However, this requires data on the exact routing and travel class which was difficult for some organizations to obtain retroactively.

For certain categories of official travel – such as entitlement travel (home leave), self-ticketed travel or charter flights – information on the routing and class of travel was not readily available. In these cases, estimates were made either by estimating the routing by select-

ing commonly-travelled routes, or else using the average emissions per flight calculated by the ICAO Carbon Emissions Calculator which was then applied to the number of flights with missing data. One way of overcoming such problems in the future would be to adapt the ERP system to collect the required travel data, with support from the ICAO secretariat if appropriate, so that estimated itineraries can be replaced with actual data where possible.

The emissions from air travel included in the inventory include all trips paid for by the organization, both those of staff members as well as for example conference participants. The indicator “Air travel per staff member” will therefore be higher than the actual average per staff member and should thus be understood as a general indicator for the emission intensity of the organization. A high value may reflect a large amount of participant travel.

Field offices

The inclusion of field offices in the GHG inventory presents major challenges. Data on energy consumption and other relevant emissions sources were often difficult to obtain or not available, either because data are not being collected or because local infrastructure lacks emission control devices or consumption information. The need for additional staff training, the geographical distance and the large number of field offices all increase the challenges.

Some organizations with a large number of country offices succeeded in obtaining good coverage of these offices in their first inventory. Others have prioritized headquarters and/or larger offices for which reliable

data were more readily available, and will expand the scope of their GHG inventory over time.

Comparability

The UN system organizations have followed a common methodology and minimum agreed boundary, as a result of which their data are broadly comparable. However, there are divergences between organizations on coverage of country or field offices, and so the aggregated UN system data do not reflect the full impact of operations. Furthermore, data collection systems for air travel and refrigerants in air-conditioners will need to be improved to harmonize to a high quality across organizations.

Data collection systems

Data collection systems play one of the most important roles in preparing the GHG inventory. A critical lesson learned for many organizations was to integrate data requirements and the data collection process itself into the day-to-day operations of the organization, in order to ensure that data are readily available and are of high quality. The necessary procedures, roles and responsibilities need to be established, with empowerment from senior management.

Quality control

The UN Climate Neutral Strategy recommends that the GHG inventories should undergo periodic independent verification. Plans are underway to carry out such verification of the methodologies developed by the UN for their GHG inventory, as well as efforts to ensure that a harmonized and coordinated approach for the verification of individual organizations’ inventories, including the provision of related training for UN system.

Next steps

A review will be undertaken of the experience in compiling the 2008 inventory, including lessons learned for 2009. A priority area will be to simplify the process and facilitate data submission and emissions calculations, which is planned using an online data submission system.

Other areas of focus will be facilitating data collection from country offices, improving other areas of coverage and enhancing data quality.

The experience in using the tools will also be reviewed, and improvements made together with updates on emission factors. Better use will be made of the knowledge-sharing website to collect and disseminate information on local emission factors for energy generation, and other data.

Ongoing efforts will be needed to further automate data collection from the various ERP systems in use by the UN system.

Organizations	Total emissions	Air travel	Emissions per reported personnel	Emissions from air travel per reported personnel	Office-related emissions	Number of staff included in inventory
	t CO ₂ eq	%	t CO ₂ eq/staff	t CO ₂ eq/staff	kg CO ₂ eq/m ²	
CBD	3518.0	44.21	37.03	16.37	706.87	95
CTBTO	2275.7	59.63	6.58	3.92	47.25	346
DFS	3075.1	8.98	6.15	0.55	45.18	500
DPA	19928.5	31.56	11.81	3.73	n/a	1687
DPKO	972304.8	46.90	8.51	3.99	n/a	114206
ECA	4188.9	55.82	3.03	1.69	19.12	1381
ECE*	1076.0	67.41	4.60	3.10	26.00	234
ECLAC	3266.0	59.03	4.67	2.75	63.86	700
ESCAP	6409.6	16.76	5.83	0.98	265.01	1100
ESCWA	3512.2	16.45	11.19	1.84	86.08	314
FAO	50008.1	64.51	8.25	5.32	62.36	6065
IAEA	26570.5	77.78	8.05	6.26	47.26	3300
ICAO	5460.4	40.94	7.68	3.14	70.13	711
IFAD	3289.1	70.05	3.65	2.56	38.55	900
ILO	11661.7	61.30	5.51	3.38	21.81	2118
IMO	4270.6	20.88	12.31	2.57	141.68	347
ITC	3054.8	94.04	9.55	8.98	20.39	320
ITU	2879.7	61.15	3.33	2.04	19.06	865
UN Geneva	17065.6	74.16	6.19	4.59	25.74	2756
UN Nairobi	1760.3	41.41	2.94	1.22	26.57	599
UN Vienna	9133.6	49.12	8.66	4.25	92.45	1055
UNAIDS	1473.3	83.12	5.17	4.30	19.20	285
UNCCD	562.7	90.66	14.07	12.75	0.02	40
UNCTAD*	4017.0	80.30	8.00	6.40	26.00	504
UNDP	56230.8	50.22	4.93	2.47	n/a	11417
UNEP	11754.3	86.18	9.56	8.24	41.92	1229
UNESCO	24165.0	52.81	4.81	2.54	42.41	5028
UNFCCC	1687.2	79.80	4.49	3.58	0.51	376
UNFPA	18128.5	48.42	6.12	2.96	44.95	2961
UN-HABITAT	3371.3	94.44	10.64	10.04	23.45	317
UNHCR	1962.0	77.07	1.85	1.43	12.18	1058
UNHQ	90953.9	40.61	10.28	4.17	166.22	8850
UNICEF**	9564.7	66.04	7.99	5.28	9.98	1197
UNIDO	10220.8	55.39	18.09	10.07	49.29	565
UNIFEM	2233.0	73.20	3.44	2.51	44.67	650
UNISDR*	586.6	89.67	6.90	6.19	20.44	85
UNITAR*	292.4	91.32	4.87	4.45	19.02	60
UNOPS	546.8	57.91	3.62	2.10	57.39	151
UNRWA	11953.0	2.00	4.77	0.10	93.96	2505
UNU	1321.1	30.72	14.68	4.51	704.08	90
UNV	536.3	74.32	3.65	2.71	11.79	147
UNWTO	900.0	72.15	9.37	6.76	37.04	96
UPU	1510.4	28.12	6.24	1.76	40.36	242
WFP	104262.6	9.47	10.22	0.97	56.38	10200
WHO	23675.5	75.55	9.50	7.18	50.47	2493
WIPO	9663.7	59.75	7.87	4.70	39.60	1228
WMO	2681.0	89.74	8.38	7.52	13.65	320
World Bank Group	192255.0	57.16	13.8	7.9	102.02	13892
WTO	5241.2	84.03	8.05	6.77	30.11	651
UN system	1741412.6	48.00	8.41	4.02	139.38	206954
UN system without DPKO	769107.8	49.30	8.29	4.10	93.58	92748

* GHG emissions included in UN Geneva inventory ** UNICEF is included in the overall inventory, but not in the fact sheet.

3. EMISSIONS REDUCTIONS

A strategic approach

The UN System Chief Executives Board for Coordination (CEB) committed to reduce GHG emissions to the extent possible. At its September 2009 meeting, the Environment Management Group (EMG) agreed to facilitate the development of individual emission reduction strategies for each organization as well as a common approach to emission reduction across the UN system.

The Sustainable United Nations facility (SUN), hosted by UNEP, was set up in 2008 to provide support alongside EMG, to all organizations within the UN system, and others outside, to reduce their GHG emissions.

Support is provided in three areas:

- Identification and implementation of emission reductions opportunities in individual UN organizations, each one having assigned a climate neutral focal point responsible for coordinating internal emission-reduction activities;

- Development of common tools and guidelines to support emissions-reduction efforts in organizations. This is a joint effort by all UN organizations, coordinated by SUN and EMG. Tools include guidelines for emissions-reductions through sustainable policies for facilities management, travel and procurement, green meetings, distance working, etc.;
- Revision of common policies affecting the ability of UN organizations to behave in a more climate-friendly and sustainable way. This includes minimum standards for energy efficiency in facilities owned or leased by UN, and for access to e-communication tools by UN staff, thus reducing the need for travel, with revised procurement guidelines to allow the purchase of energy-efficient equipment when possible.

The following section describes progress and achievements in these work streams in greater detail.

UNITAR: where there's a will there is a way

Within a few months in autumn 2008, UNITAR set up its 2009–10 climate-neutral policy and strategy, completed a first inventory of GHG emissions, set measurable emissions-reduction targets, and promulgated a number of measures to reduce its climate impact. What made such rapid process possible?

UNITAR's Executive Director, Carlos Lopes, simply took the decision by the UN Chief Executives' Board on Coordination (CEB) literally and made it a strategic priority for the Institute to become climate neutral. A Climate Neutral Task Force was set up, headed by the Associate Director of Environment and comprising staff from the Climate Change Programme and the Administration and Finance Section to ensure swift implementation. The Task Force meets at least once a quarter and regular briefings occur with the Executive Directors to review progress and challenges.

The Climate Neutral Policy was promulgated through an administrative circular, making it binding across the Institute. It states that all 2008 emissions emanating from staff travel and headquarters office operations will be offset. In 2009 the target is to offset all GHG emissions from all office locations, all emissions originating from staff travel and half the emissions from travel of workshop participants and trainees. In 2010 all of UNITAR's operations, including emissions from all workshop participants, will be offset.

An important aspect of the Policy is that it does not comprise the ability of the Institute to meet increasing demand for its training services. This is achieved by setting a target of reducing GHG emissions per person trained and unit of training delivered rather than absolute emissions-reduction benchmarks. The target is to halve emissions by 2012 per unit of training delivered, using 2009 data as a baseline. Enhancing the use of technology-supported learning, such as e-learning and video-conferencing, is an important factor in reaching this target.

Focus areas

Activities within specific focus areas, where emissions reductions have been achieved in the past two years, are presented below:

Preparation and/or adoption of emission-reduction policies

Fifteen UN organizations have adopted, or are in the process of developing, specific emission reduction policies, guiding organization-wide efforts to reduce the climate footprint of the organization. These policies typically link climate-neutral work with the mandate of the organization.

With a few exceptions the emissions-reduction policies do not yet contain any quantified targets. But they are based on GHG inventories which are now complete, and assessments of associated options in each organization. It has now been agreed that all organizations will strive to adopt specific emissions-reduction plans by the end of 2010.

Sustainable travel

Travel is the major source of GHG emissions in most UN organizations, typically 50 to 60 per cent but in some cases up to 90 per cent of total emissions. This includes official travel by staff, and travel by meeting participants, consultants and experts the cost of which is paid for by the organization. Thirty-one UN system organizations have implemented measures of some kind to reduce the climate footprint of their travel. Measures include:

- Reduced travel, replacing travel by improved e-communication, such as on-line meetings, high quality

- video conferencing, and web conferencing;
- More efficient travel, by train instead of by plane for short distances, or flying in economy class instead of business class.
- Improved travel planning and coordination to reduce the number of trips by bundling several objectives into one mission.

Specific examples include UNV requiring staff to travel by train if the destination can be reached in less than six hours; UNFPA where travel is approved only if the purpose cannot be fulfilled through video conferencing or other forms of e-communication; UPU only allowing travel in business class in exceptional cases; UNITAR strengthening networks of regional training institutions to reduce the distance travelled to workshop sites; ICAO giving preference to carriers with modern fuel-efficient aircrafts; and UNIDO where travel authorizations state the quantity of GHG emissions that the staff member is responsible for over the previous year, and where each travel reservation shows the resulting GHG emissions. In a few organizations specific targets have been adopted to reduce travel, including UNAIDS (25 per cent cut in Secretariat travel in 2010–11) and UNIDO (30 per cent cut in directors' travel in 2009).

There is a clear trend within the UN for an increasing number of organizations to seek ways to cutting travel, both to reduce GHG emissions and costs. While staff travel is essential for the UN to fulfil its mandate, past and current experience shows that there is room for improvement both in the number of missions and the way travel is undertaken.

The Universal Postal Union: travel policies

The UPU has been actively reducing its climate footprint since 2005 when it established the Environment and Sustainable Development Project Group and adopted UPU's environmental policy. A key area for UPU is reducing GHG emissions from travel. To this end, it adopted a travel policy which has been successfully implemented over the past years.

UPU's travel policy includes several recommendations, including taking the most direct route and giving preference to traveling by train instead of flying, particularly for short-distance trips. As an incentive to promote train over air travel, the UPU offers its staff to travel in first class and pay for a half-fare card on public transport within Switzerland. When air travel is unavoidable, UPU only allows travel in economy class (except for the Director General and the Deputy Direc-

tor General) rather than in business class owing to the latter's larger climate impact. This larger impact arises because a business class passenger occupies more space and has a greater luggage allowance than one traveling in economy. This recommendation is broadly accepted by staff.

Other UPU travel recommendations include promoting the use of teleconferencing to replace travel, reducing the number of staff traveling on the same mission when possible, and deploying local staff instead of staff from headquarters.

Information on travel emissions is collected on an annual basis and communicated by the organization. UPU's travel policies have resulted in considerable cost savings and have reduced the organization's climate footprint.

In support of this effort a guide to sustainable travel in the UN is planned for release in spring 2010 and a help desk was established to assist UN organizations in developing sustainable travel strategies. The Inter-Agency Travel Network (IATN) is also reviewing how sustainable travel can be supported through information exchange on best practices, standard requirements on travel agents, and possibly revision of existing travel regulations.

The GHG inventories show that organizations with significant field operations tend to have larger vehicle fleets and a high proportion of emissions from vehicles, compared to other organizations. Organizations with large vehicle fleets are working to reduce emissions from ground transport: WHO and WFP, for instance, are increasing the share of hybrid vehicles in their fleets. UNWRA and several other organizations are including fuel efficiency as a criterion in procurement of new vehicles. The UN Web Buy site (the procurement portal developed by UNOPS and accessible by all UN agencies) now includes such information for all listed vehicles. WFP is also training all its drivers in fuel-efficient driving, and monitoring the fuel consumption of each vehicle.

Sustainable commuting is supported by a number of organizations. Examples range from providing staff

with subsidized tickets for local transport and electric chargers for electric scooters to reserving parking space for car pools. Several organizations have increased the parking area available for bicycles.

Emissions reduction in buildings

Buildings are another major source of GHG emissions in the UN. Emissions are typically caused by electricity and fuel use for heating, cooling, ventilation, lighting, and powering of office equipment, and refrigerants used to cool the buildings.

Several new buildings or renovation projects undertaken in the past two years have paid attention to energy efficiency and associated GHG emissions reductions. Examples include:

- The renovation of the UN Secretariat in New York (the Capital Master Plan), where an improved building envelope, improved chillers and smart building features, such as daylight harvesting and occupancy sensors, are estimated to achieve approximately 45 per cent reduction in energy use. (see text box below).
- The new UNON/UNEP office building in Nairobi, which is set to become the first energy-neutral office building in Africa.
- The Green One UN House in Hanoi, created under the Delivering as One UN reform, where state-of-the-art

UN Headquarters in NY: Capital Master Plan

When the original UN Headquarters complex in New York City (UNHQ) was built in 1952, it was considered one of the most modern facilities in the world. Today, the facility must meet new challenges and requirements. To bring the UN Headquarters into compliance with current codes and standards, the UN Secretary-General proposed a comprehensive renovation of the complex, known as the Capital Master Plan (CMP).

Under the CMP, the UN intends to renovate the complex and upgrade all major building systems including the electrical, plumbing, fire suppression, heating and air-conditioning systems, and to reinforce the structural integrity of the building and remove all asbestos.

Renovation of the UNHQ complex will allow application of latest environmental technologies and highest energy-efficiency standards. The environmental performance of UNHQ is expected to progress significantly. Compared to the existing campus, the following improvements are expected:

Energy

1. At least 50 per cent reduction of total energy use;
2. At least 65 per cent reduction of energy for heating and cooling;

Greenhouse gases

3. At least 45 per cent reduction in CO₂ emissions related

to total energy consumption (23'000 tonnes emissions);

4. Removal of ozone-depleting refrigerants (CFCs);
5. Use of reduced GHG HVAC coolants;

Water

6. 40 per cent reduction in water use;
7. Low-flow lavatories, toilets fixtures and urinals;
8. Rainwater harvesting;

Resources and waste

9. Removal of hazardous materials;
10. Construction waste management programme;
11. Use of recycled materials;

Energy savings are achieved through improved insulation and enhanced energy conservation. A high performance double-glazed curtain wall, automated interior shades/blinds and other energy-conserving measures systems will be installed on roofs and exterior walls. A daylight harvesting system, which automatically controls artificial light in response to natural light levels, high-efficiency lamps and ballasts, and occupancy sensors, which automatically turn off lights if a space is unoccupied further decrease the building's energy demand.

The renovation will also demonstrate new technologies, including photovoltaic roof panels.

design and technology will minimize both the carbon footprint and other environmental impacts such as water use. At the same time, thanks to this project, the Vietnamese building sector is better equipped to design sustainable buildings. (see text box).

- The new IFAD headquarters in Rome, incorporating sustainable design features in the choice of materials, building envelope, windows, heating-cooling systems, lighting, interior design, building control systems.
- The new home of UNOPS headquarters and other UN organizations in Copenhagen – the “UN City” – which is to be completed by 2013 and is designed to meet the highest national standards of energy efficiency and sustainability.
- The ICAO Headquarters in Montréal (Place de la Cité Internationale), obtained Canada’s first Leadership in Energy and Environmental Design Certification for Existing Buildings (LEED-EB), a benchmark in property management in terms of both energy efficiency and environmental sustainability.

To reduce GHG emissions, 24 organizations of the UN system have carried out assessments and improvements on at least some of their facilities. This includes hardware investments (improving insulation of the building envelope, replacing boilers, switching to

WMO Headquarters building: A model of energy efficiency

The new WMO Headquarters building reflects the organization’s commitment to environmental protection and energy efficient management. A system of Canadian wells runs vertically through the building, through which cold air is drawn up, rising as it heats up, thereby maintaining the building at a constant temperature between 20 and 26 degrees Centigrade. An innovative double façade – or protective skin outside the core of the building – functions as a thermal flue. When closed, the outer skin provides insulation from cold weather in winter, and shade from over-heating in the summer. The outer skin also provides an effective ventilation system to complement the Canadian wells – in the summer automatic ventilators operate during the hours before dawn, drawing in cold air from the basement through stairwells. Glass interior walls make optimal use of natural light, reducing costs from artificial lighting. Further savings are achieved through motion sensors to activate lighting and the use of energy efficient bulbs.

compact fluorescent lights, installing double-glazing) and modified building control (restricting operational hours for indoor heating-cooling systems, connecting ventilation and lighting to motion sensors, regulating heating-cooling through sensors in each part of the

UNIDO Headquarters: Environmental approaches in building management at the Vienna International Centre

The impressive modern building of the Vienna International Centre (VIC) is currently shared by four international organizations IAEA, UNIDO, UNOV/UNODC and CTBTO. The VIC complex covers an area of 180’000 square meters comprising nearly 4’500 offices and nine conference rooms and accommodating nearly 4’000 staff members plus up to 1’000 visitors each day. Maintenance and operating costs of the office complex are shared by the VIC-based organizations. The facility is managed by the Buildings Management Services, an organization operated under UNIDO management.

Buildings Management Services has been putting energy saving and environmental protection measures at the top of its agenda. These measures have not only contributed tremendously to save energy and protect the environment, but have also enhanced the safety, security and reliability of the VIC and brought about a modern and state-of-the-art office working environment.

The replacement of façade window panes resulted in energy savings for heating (27 per cent), cooling (17 per cent), and total annual cost savings of €300 000 to €450 000. In addition, lighting systems were modernized by replacing the old lighting systems with modern ones. Nearly 43 000 light fixtures were replaced in 4’500 offices, garages and staircases. This halved electricity consumption

for lighting and saved a calculated €250 000 a year. The condensation pipes on 15’000 air-conditioning units were replaced, significantly improving cooling capacity while lowering energy consumption.

To improve water management in the facility, toilets, sprinkler systems and manual irrigation water systems were connected to groundwater wells to save drinking water. Several measures were implemented to reduce water use in sanitary areas.

To reduce paper use, paper towel dispensers in sanitary areas of VIC have been replaced with washable cloth towel roll dispensers. Furthermore all contractors have been asked to use only environmentally-friendly products and detergents.

Special waste bins and containers were installed on VIC premises to improve the recycling rate. All paper waste is now collected separately and dispatched for 100 per cent recycling.

An initial energy audit revealed that further ecological and economic savings could be achieved. The implementation of the recommendations, which were made based on the initial audit, were discussed by the VIC-wide buildings committee and the UNIDO Climate Team and will be evaluated further.

A Green One UN House in Hanoi, Viet Nam

In Hanoi, the Government of Viet Nam, the UN Country Team, and several donors are contributing towards the construction of a Green One UN House. There are currently 16 UN organizations present in Hanoi at 10 different locations. The co-location of those organizations is expected to substantially enhance the effectiveness of interagency coordination and provide a wide range of opportunities to cut GHG emissions and other environmental impacts such as waste and water use.

Rapid urbanization and high vulnerability to climate change are critical to the future of Viet Nam. According to scientific estimates, a possible one metre rise in sea level by 2100 will result in the displacement of nearly 22 million people and financial losses equal to approximately 10 per cent of GDP. The Green One UN House seeks to provide a model for Viet Nam and other countries by demonstrating the viability of innovative sustainable buildings to counter climate change.

In the Green One UN House, energy consumption is expected to be reduced by 36 per cent compared to business-as-usual designs for offices in Hanoi by maximizing heating and cooling efficiency and using energy efficient lighting. The water management system will harvest rainwater, recycle and filter it, thereby reducing water use by 30 per cent.

Among others, the building will use thermal insulation to minimize the need for air-conditioning, which is the prime source of ozone-depleting substances. One or two atria will bring natural light inside, and green space will be created through landscaping of the external area of the site. It will use

lead-free paints, with carpets and other fittings that are low in volatile organic compounds. Wood products will originate from sustainably managed forests. Building materials will be recycled and reused and the use of virgin materials will be minimized.

Beyond environmental sustainability, bringing the UN together in one building will create synergies, enhance effectiveness, and inter-agency coordination among the 16 UN organizations in order to “deliver as one”. In the One UN House, the UN Country Team can improve development effectiveness through functional clustering of staff and establish a wide range of common support services yielding cost savings. The annual savings in operational costs created by this project are estimated at US\$500 000.

Cost savings, however, are not the ultimate argument for establishing a Green One UN House. The priority is to implement the reform programme for UN organizations, use energy more efficiently and eliminate wasteful practices.

As an example of best-practice in an eco-friendly and energy-efficient office building in the region, the Green One UN House in Hanoi will be an important demonstration of the UN's commitment to environmental sustainability and fighting climate change. Alongside this project, UNEP will undertake capacity building to encourage the building sector in Viet Nam pursue sustainable buildings. Here is an example for other UN agencies and a model for eco-design and green technology in Viet Nam.

ICAO Headquarters: the first LEED certified UN Building

ICAO Headquarters in Montreal (Place de la Cité Internationale), obtained Canada's first Leadership in Energy and Environmental Design Certification for Existing Buildings (LEED-EB) in 2007. ICAO's Headquarters is the first UN premise that has obtained the LEED-EB Gold certification.

The LEED-EB is recognized internationally as the benchmark in property management in terms of both energy efficiency and environmental sustainability. The achievement of this certification reflects ICAO's willingness to integrate environmental considerations into its operational management and to comply with a set of performance standards. These standards cover the following categories:

- Sustainable management of the site
- Water quality and efficiency
- Energy efficiency and atmosphere protection

- Sustainable use and disposal of materials and resources
- Indoor environmental quality
- Innovation in operations & upgrades

ICAO Headquarters required major work in order to become compliant with LEED standards, which represented a significant challenge. Several modifications were made in terms of lighting, plumbing, ventilation, responsible water use, recycling, maintenance processes and methods, and operations. For example, fluorescent tubes, ballasts, high-efficiency systems and speed regulators were replaced.

This certification, as demonstrated by the excellent ICAO's GHG performance indicators, has helped to reduce carbon emissions arising from the Headquarters operations, and is helping move ICAO towards Climate Neutrality.

building). The Secretary-General's “Cool UN” initiative also contributes to this effort. By reducing heating and cooling in relation to outdoor temperatures, supported by a relaxed dress code during the hot season, the UN Secretariat in New York reduced its GHG emissions by an estimated 3,100 tonnes in 2008.

Investments to reduce GHG emissions from buildings typically have multiple benefits. Even though up-front investments are required for this type of intervention, the annual savings through reduced energy consumption recoup the outlay well within the buildings' life cycle.

IFAD: A Green Building in Rome

After four years of preparation, in June 2008, IFAD moved into its new headquarters, uniting the formerly three IFAD locations to one. The aim was to reduce the organization's impact on environment, to provide more space of higher quality, and to improve work conditions for its employees.

The new building has 18'000 sq m of office space, which is 2'000 sq m more than the three previous IFAD buildings together, and includes 750 work places, 13 meeting rooms (eight more than previously) and a 3,000 sq m state-of-the-art conference area.

The building's sustainability features include a high-performance building envelope façade, reducing energy demand and greenhouse gas emissions. Inside the building, the major sustainability features include high-energy efficiency standards for heating, ventilation, lighting and air-conditioning. In addition, the building's air-conditioning and fire suppression systems have zero chlorofluorocarbon (CFC) emissions. To reduce drinking water consumption, several water recovery systems were installed to supply the building. Paper waste is collected at the facility and sent for recycling.

IFAD is currently exploring possibilities of obtaining Leadership in Energy and Environmental Design (LEED) certification that will represent recognition of building's high performance with respect to water savings, energy efficiency, material selection and indoor air quality

With buildings at more than 530 UN duty stations around the world, and with many more smaller offices, not to mention the pre-fabricated buildings used in peacekeeping operations, the building stock leased or owned by the UN represents a significant emissions-reduction potential. Buildings, together with travel, will most likely constitute the main focus for UN emissions-reduction efforts over the next few years.

In 2009 the Inter-Agency Facility Management Network (INFM) established a working group to develop recommendations on the minimum efficiency performance of facilities owned or leased by the UN. Two guidelines on emissions reduction from existing buildings were released in 2009, and a third guideline on procurement of sustainable buildings is being prepared for release in 2010.

Increased use of renewable energy

Fifteen organizations report that they have increasing the share of renewable energy sources, or are planning to do so. In a few cases on-site renewable energy production through solar heaters (for hot water) or photovoltaic cells (for electricity production) are supplementing other energy sources. With the support from the

German government, all UN organizations in Bonn are using green renewable electricity since January 2007.

Guidelines for renewable energy procurement in the UN are being prepared for release in 2010.

Green offices and energy efficient office equipment

In addition to the design of the building itself, the set-up and operation of offices within the building can impact the climate footprint too. The accumulation of many small measures can have a large effect. This refers to issues such as using the energy-saving features of office equipment, reducing the amount of paper printed and minimizing the number of individual printers/copiers/scanners, unplugging or turning off computers completely after working hours, maximizing the penetration of natural light into offices to reduce the need for artificial lighting (using transparent inner walls and bright colors on walls and ceilings). Thirty-two UN organizations report having carried out such measures at their headquarters.

The UNDP Bureau for Development Policy has systematically institutionalized green office measures as part of a refurbishment of one office floor in the FF-building. They include the purchase of renewable energy certificates (RECs) and offsets to compensate for the remaining office emissions. Furthermore, water consumption was reduced by 40 per cent, indoor environmental quality improved and materials reused or selected under sustainability considerations. The bureau is the first UN office in New York that has been awarded the US Green Building Councils Gold Certification for Leadership in Energy and Environment Design (LEED) for one of its occupied office floors.

Other organizations have issued Green Office Guides to help field offices implement immediate cost-effective actions toward greener day-to-day operations, including standard double-sided printing, saving and recycling of paper and toner, turning off lights and computers when not in use, and maximizing the use of natural lighting. Such measures are often very cost-effective. But staff members need to understand and support the reason for change, as their personal behaviour often has a substantial impact on performance. This is one of the reasons why staff training and communication are important parts of emissions-reduction efforts at the UN (see text box below).

Green ICT and improved access to e-communication tools

Information and Communication Technologies (ICT) are of particular importance for the climate footprint of UN offices, both in terms of the direct impact from elec-

tricity use for computers and servers (operation and cooling), and due to scope for reducing travel through increased use of e-communication tools.

Regarding the direct climate footprint of computers and servers, most UN organizations are upgrading computers, in so far as new hardware includes energy-saving features as a standard, and where desktops are often replaced with considerably more energy efficient laptops. Server rooms, which are on average responsible for about 10 per cent of the total energy consumption in offices, are in some cases, such as the UN Secretariat in New York, downsized so that more virtual servers run on fewer physical machines, which has a proportional impact on the energy consumption and costs for both energy and hardware.

While use of e-mail, phone- and video-conferencing has been commonplace throughout UN for many years, 29 UN organizations are now developing access to more modern e-communication tools such as on-line conferencing, personalized PC-based video links, internet phone conferencing and on-line class rooms. Several organizations require staff to consider conducting meetings and missions through e-communication, before travel is approved. In many organizations all new computers are supplied with headsets and webcams to enable voice-over-IP and personal video conferencing applications.

There is a clear trend for UN organizations to take advantage of the many opportunities for more efficient ICT support, both to reduce the direct climate footprint of ICT equipment and support reduced emissions from other activities, in particular meetings, travel and communication.

UNECE has also implemented a pilot project, entitled 'Facilitating Electronic Public Participation and Mitigating Climate Change: Proposed Feasibility Study of Teleconferencing and Webcasting in Selected Aarhus Convention Meetings'. This will reduce travel to meetings, thereby contributing to a reduction of carbon emissions caused by UNECE activities. At the same time, an increase in web-based meeting techniques also offers greater potential for public participation in such meetings, if appropriate.

The UN ICT Network has established a working group to review the potential for improving access by all UN staff to high quality e-communication tools.

Flexible/remote working arrangements

2003 saw the launch of the UN Flex policy, enabling organizations to arrange work schedules for staff in a way that allows work to be done more flexibly in terms of

both time and place. Sixteen UN organizations now use this policy. Although it is primarily a means of enhancing the work-life balance of staff, the UN Flex Policy also has positive effects on GHG emissions. It reduces commuting and the need for travel, allows bundling of missions and reduces the need for office space. A methodology for assessing the potential for applying UN Flex to reduce GHG emissions in individual UN offices is due for release in early 2010.

Green meetings

One of the UN's main activities is to bring together stakeholders in meetings for negotiations, training, planning and assessments. The direct and indirect climate footprint of meetings can be large, depending on the location of the meeting, time of year, number of participants, accommodation, catering and preparation of meeting materials. Typically, the largest source of GHG emissions from meetings is travel by participants. Other sources include use of heating, cooling and electricity at the meeting venue and hotels, and (indirectly) printing of meeting documents, catering, and local transport.

The UN Green Meetings Guide was released in early 2009, providing advice and checklists on how to minimize the environmental impact of meetings. Twelve UN organizations have already started to organize at least some of their meetings as green meetings. Prominent examples include the World Food Summit organized in Rome by FAO in 2008, UNFCCC's COP 14 in Poznan and UNEP's Global Environment Forum in Monaco the same year, and the Governing Council in Nairobi in 2009. In these meetings measures were implemented such as on-demand printing, pooling of transport for meeting delegates, avoidance of excessive cooling of meeting rooms, web-casting of sessions, video presentation by some delegates from their home countries, provision of organic food and use of recyclable cups. The travel-related climate footprint of participants paid for by the organization was compensated for through purchase of offsets.

For UNFCCC COP15 in Copenhagen virtual presence teleconferencing rooms connected to similar rooms around the world have been set-up, to allow delegations and other participants to organize virtual face-to-face meetings with colleagues and experts abroad without requiring them to come to Copenhagen.

Simply because of the very large number of meetings organized by the UN every year, paying more attention to minimizing the climate footprint and other negative environmental impact from meetings would have a large cumulative impact. This is expected to remain one of the focus areas for emissions-reductions at the UN in the coming years.

UN Headquarters in New York: ICT Electronic Measures

The UN Secretariat Office of Information and Communications Technology (OICT) is in the process of implementing ICT Guidelines for Greening and Environmental Sustainability for the Secretariat. The guidelines, developed as part of the ICT Fast Forward Programme, promote high-level climate neutral and green ICT procurement practices to achieve GHG emissions reduction and reduce the waste of energy and paper.

The guidelines include:

- Recommendations on standards for acquisition of environmentally-friendly ICT equipment;
- Guidelines on replacement and disposal of old equipment;
- Recommendations concerning consolidation of equipment and server rooms to save energy;

- Proposals for reducing the number of peripheral devices such as desktop printers, scanners, copiers and fax machines;
- Measures to reduce paper consumption by using double-sided printing and document digitizing solutions;
- Green business processes such as electronic document workflow and electronic signatures; and
- Promoting new methods of work by using telepresence and telecommuting technology for reducing travel needs.

Successful implementation of the Green ICT guidelines will therefore result in reduction of paper and power consumption, promotion of greening initiatives and a better work environment.

Sustainable procurement

The ability of the UN to move towards climate neutrality depends to a large extent on its ability to identify and purchase services and equipment with a reduced life-cycle climate impact. Fuel-efficient vehicles, energy-efficient office equipment, building systems that allow better control of energy usage, goods and commodities with a lower life-cycle climate impact are examples of measures that can make a difference. Because of the critical role of the UN procurement system, another EMG work stream has focussed on sustainable procurement for the past two years, alongside its work on climate-neutrality. This work will be integrated with the climate neutral work in 2010, contributes directly to the UN's ability to move towards climate neutrality. Supporting activities include the preparation of specific guidelines for 20 different product categories and the provision of training and information of staff. An on-line training kit is to be released in 2010. At the same time it is very important that sustainable procurement be applied in such a way as to avoid distorting markets or skewing suppliers' access to UN's internal markets. Instead, sustainable procurement should be introduced gradually and with great care to adopt its interpretation to local conditions and requirements, and in accordance with respective UN organizations' governing bodies' decisions.

Twenty-one UN organizations are in the process of introducing, and building capacity on, sustainable procurement. Examples of product categories where sustainable procurement principles are already applied in some UN organizations include ICT, cleaning, office stationery, vehicles, furniture, communications hardware, and office equipment.

Training and awareness

A key requirement for successful implementation of the UN Climate Neutral Strategy is to gain the full support of the staff. While most UN staff are well aware of the challenge that climate change poses and how they may address this through UN's external work, they are often do not realize how they too can contribute to reducing the UN's climate footprint. Training and awareness are consequently core activities.

Twenty-five UN organizations have undertaken various forms of staff training and awareness campaigns. Examples of activities include:

- Preparation of green office guides, which are shared with all staff;
- Establish "Green house rules";
- Regular formal staff training sessions on climate neutrality and improved greening practices, as well as informal sessions (brown bag lunches, "green learning afternoons", etc);
- Compulsory on-line training for all staff in headquarters and field offices;
- Intranet sites highlighting efforts to reduce the climate footprint, and usually also to improve the sustainability of the organization;
- Notice boards in common areas where the performance (energy use, waste generation etc) of each individual department within the organization is posted every month;
- Campaigns use of energy, water and paper, using multi-media, art installations, posters, handouts, rolling clips on TV monitors, etc;
- Using events and thematic days such as the World Environment Day, to highlight the role of staff in reducing the organization's emissions;

FAO staff take action

FAO has conducted a number of activities towards implementing the organization's Climate Neutral Strategy. One of the priorities is to raise FAO's staff awareness for more environmentally friendly behavior. To support the climate neutral initiative, in December 2008, staff members formed a voluntary Going Green Group (GGG).

The Going Green Group promotes information exchange and develops strategies for enhanced environmental management and enlightened staff behaviour. In 2009, it organized and participated in a number of awareness-raising activities ranging from internet platforms to workshops and information stands. Communication tools used by the "Going Green Group" include:

- Preparation of a green stand at the FAO Knowledge Share Fair, an information and best practice knowledge-exchange event for several Rome-based international organizations.
- Promotion of the Going Green Group on the Share Fair website www.sharefair.net and creation of its own website www.netvibes.com/gggfao.
- Participation in promoting the European Mobility Week, the World Earth Day and World Environment Day.
- Screening of environmental awareness raising films.

FAO's "Going Green Group" has also shown that raising environmental awareness can be creative. In June 2009, for example, the GGG was instrumental in realizing a multi-media campaign called the "Plastic Water Bottle Awareness Campaign". The centre-piece was an art installation in the central building area consisting of 70 plastic bags suspended from ceiling containing the number of plastic bottles disposed of by FAO staff every working day. The campaign was accompanied by posters, handouts, a TV clip, and related recommendations and a business case for water fountains as an alternative to bottled water. Other concrete activities include:

- Distribution of Green Tips for FAO staff via log-on messages and email, focussed to date on waste generation and paper consumption.
- Promotion of alternatives to private car transport for the daily commute and advertising of new eco-transport loans provided by the FAO Credit Union.

The Going Green Group is currently looking at ways to further enhance environmental and climate-neutrality knowledge and seeking to inspire other staff members to join in.

Raising staff awareness at ESCAP

ESCAP has been actively promoting an environmentally friendly work culture in its buildings in Bangkok since 2002. It formed its own working group on energy efficiency in 2005 to identify potential options for energy-efficient and environmentally friendly approach to many aspects of work and day-to-day practices. To reduce carbon emissions and to improve environmental performance, ESCAP initiated a number of greening and staff awareness activities through the provision of appropriate guidance and participation in environmental activities.

"Green Boards" were placed in strategic positions around the building complex. Made entirely of recycled materials, the boards display information on energy-saving and greening projects. They also feature related articles of interest, data and reports. Other awareness-raising activities include multiple reminders to staff and visitors. All internal doors carry signs to keep them closed at all times, while office entrances feature everyday advice on how to reduce the carbon footprint.

Waste recycling is encouraged by placing recycling stations on every floor of the complex with separate bins for office paper, magazines and brochures, plastic bottles, cans and batteries. In addition, every desk and workstation has two bins, one for general waste and one for recyclable materials. This enables staff members to separate waste at their desks and, so less recyclable waste is spoiled. Monthly records of recycling quantities by floor are posted on the FMU intranet site to inform staff on the results of their efforts.

To promote the use of emissions-efficient transportation, car parks have been fitted with 50 display boards with information on environmental friendly behaviour and alternatives. In support of reducing individual car travel, the ESCAP online discussion board facilitates the organization of car pooling and encourages its staff to engage in existing car pools. In addition, a notice board for posting requests and offers has been placed in the main entrance of the Secretariat Building.

- Suggestion boxes where staff can propose how the organization may improve its climate or sustainability performance; and
- Explain to staff the background every time emissions-reduction actions are undertaken, for instance when energy-efficient lamps are installed, when printers are set to double-sided printing by default, or when staff are asked to travel by train instead of flying.

For several years now, staff members in many UN organizations have been volunteering to promote sustainable practices, including climate neutrality. As part of the UN climate-neutral effort, these groups met up with the UN climate neutral focal points for a two-day workshop in 2009, leading to an agreement to coordinate and cooperate among these groups and focal points, thus further enhancing staff awareness and commitment.