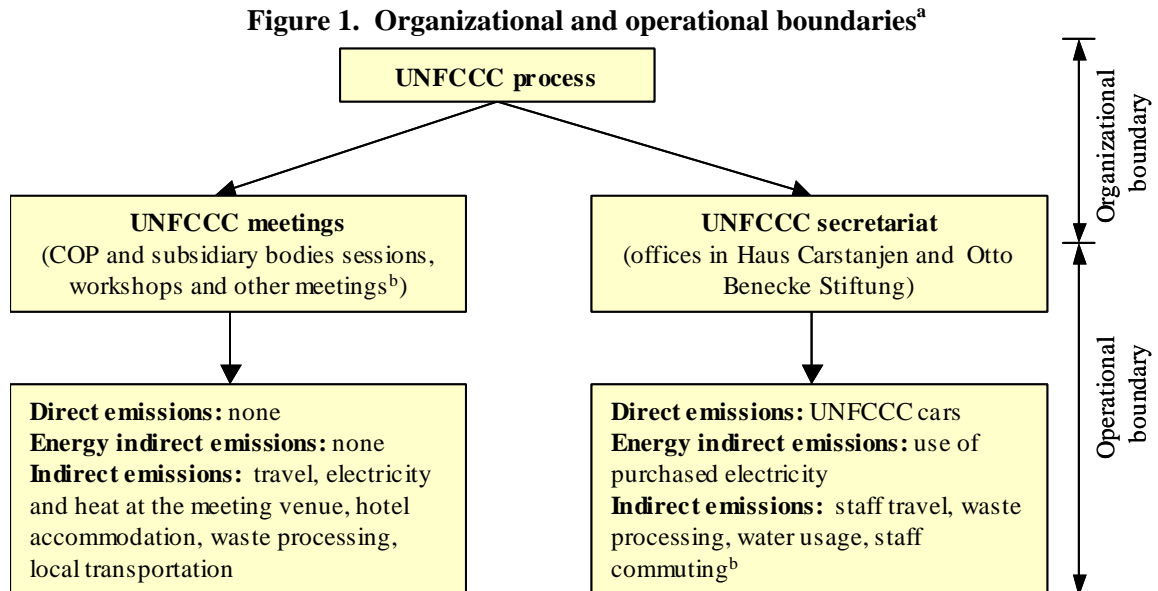


GHG emissions inventory of the secretariat
for the biennium 2004 - 2005¹

1. The secretariat has updated its first green house gas (GHG) emissions inventory for the 2004-2005 biennium², which will be used as a baseline for future periods. Figure 1 illustrates the organisational and operational boundaries that were used for preparing this inventory report.



^a These boundaries are consistent with reporting provisions from ISO 14064 on *Specifications with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals* and the *Greenhouse Gas Protocol - A corporate accounting and reporting standard* (WBCSD/WRI).

^b Other meetings and staff commuting are not included in the present inventory.

2. During the reporting period an estimated total of 57,314 tonnes CO₂ equivalent were emitted by the UNFCCC process. The biggest part of these emissions relates to conducting sessions of the Conference of Parties (COP) and subsidiary bodies. GHG emissions associated with the operation of the secretariat are relatively small (about 5 per cent of total GHG emissions for 2004). These GHG emissions are nevertheless of interest as the secretariat has full operational control over them.

Table 1. Summary of UNFCCC greenhouse gas emissions
(tonnes CO₂ equivalent)

| Category of emissions | 2004 | 2005 | Total |
|-------------------------------|---------------|---------------|---------------|
| Direct emissions and removals | | | |
| UNFCCC cars | 3.7 | 2.18 | 5.88 |
| Energy indirect emissions | | | |
| Electricity | 817 | 817 | 1 634 |
| Indirect emissions | | | |
| Travel | 28 061 | 24 894 | 52 955 |
| Conference venue | 1 236 | 1 216 | 2 452 |
| Waste | 50 | 50 | 100 |
| Water | 84 | 84 | 167 |
| Subtotal | 29 430 | 26 244 | 55 674 |
| Total emissions | 30 251 | 27 063 | 57 314 |

3. Table 1 presents a summary of the GHG emissions of the UNFCCC process grouped by the categories of emissions recommended in ISO 14604. It shows that indirect emissions from travel are the main contributor to the UNFCCC emissions (more than 92.4 per cent in the biennium). Other

¹ Revised as of 1 October 2006

² From 1st January 2004 to 31 December 2005.

contributors are indirect GHG emissions from conference venue (4.3 per cent) and energy indirect emissions (2.9 per cent). The estimates of the GHG emissions associated with UNFCCC meetings do not include participant travel to UNFCCC workshops and expert meetings. For the secretariat activities the estimates do not include emissions associated with staff commuting to work.

4. Estimates show (table 2) that 57,975 tonnes CO₂ equivalent were emitted by COP and subsidiary body sessions.³ Emissions per participant were about 2.5 tonnes CO₂ equivalent for the twentieth and twenty-second sessions of the subsidiary bodies and 4.1 tonnes CO₂ equivalent for the tenth session of the COP and 2.7 for the eleventh session. Parties and observer States make up 35 per cent of the participants at COP sessions and about 60 per cent at subsidiary bodies sessions. For COP 10, they accounted for 43 per cent of the GHG emissions from travel; observer organizations accounted for 46 per cent of the GHG emissions from travel; and media accounted for 5.3 per cent.

Table 2. Greenhouse gas emissions from sessions of the Conference of the Parties and subsidiary bodies and participation statistics^a

| Activity | 2004 | | | | 2005 | | | |
|---|-------------------|---|-------------------|---|-------------------|---|-------------------|---|
| | SB 20 | | COP 10 | | SB 22 | | COP 11 | |
| Travel of participants | Distances (km) | GHG emissions (tonnes CO ₂ eq) | Distances (km) | GHG emissions (tonnes CO ₂ eq) | Distances (km) | GHG emissions (tonnes CO ₂ eq) | Distances (km) | GHG emissions (tonnes CO ₂ eq) |
| Short haul | 64 354 | 12 | 61 446 | 11 | 71 407 | 13 | 122 394 | 22 |
| Air ^b Medium haul | 548 492 | 69 | 487 788 | 61 | 602 118 | 76 | 2 147 150 | 271 |
| Long haul | 10 544 395 | 3 132 | 81 006 651 | 24 059 | 12 186 714 | 3 619 | 79 933 566 | 23 740 |
| Car | 84 988 | 14 | 210 149 | 35 | 92 564 | 15 | 607 086 | 109 |
| Train | 103 068 | 5 | 55 463 | 3 | 89 831 | 4 | 586 524 | 61 |
| Subtotal travel | 11 345 297 | 3 232 | 81 821 497 | 24 169 | 13 042 634 | 3 728 | 13 042 634 | 24 203 |
| Electricity consumption | | | | | | | | |
| Conference venue | | 41 | | 61 | | 41 | | 29 |
| Others (incl. hotels, local transportation, waste) | | 130 | | 1 004 | | 151 | | 1 187 |
| Total GHG emissions | | 3 403 | | 25 234 | | 3 920 | | 25 418 |
| Number of participants^c | 1 351 | | 6 193 | | 1 589 | | 9 437 | |
| GHG emissions per participant | | 2.51 | | 4.07 | | 2.46 | | 2.69 |

^a For details see FCCC/SBI/2005/9

^b Until 31 December 2006.

^c Secretariat and local staff are not included. They are, however, considered in the GHG emissions (e.g., for COP 10 they accounted for 4.5 per cent of the total GHG emissions).

5. At the eleventh session of the COP and the first session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) it was estimated that 25,418 tonnes CO₂ equivalent were emitted for concluding the sessions, similar to COP 10, but with 50% more participants.

6. In the 2004-2005 biennium, 2,461 tonnes CO₂ equivalent were emitted from the operation of the secretariat during the reporting period. The energy indirect emissions and indirect emissions from staff travel are the two main contributors to these GHG emissions. Both the energy consumption and, to smaller extent the waste generated and water usage, may change considerably after the secretariat has moved to the new United Nations Campus in Bonn.

7. The secretariat owns two cars that are the only source of direct CO₂ emissions from its activities. The emissions generated by these cars amounted to 6.1 tonnes CO₂ for the reporting period. One of these cars runs on natural gas, with a low CO₂ emission factor, and the other on diesel fuel.

³ Additional information hereto can be found in document FCCC/SBI/2005/9.

Table 3. Greenhouse gas emissions from operation of the secretariat

| Activity | 2004 | | 2005 | | Total | |
|---------------------------------------|-------------------|---|-------------------|---|-------------------|---|
| Travel of staff | Distances | | Distances | | Distances | |
| Non-UNFCCC vehicles | (km) | GHG emissions (tonnes CO ₂ eq) | (km) | GHG emissions (tonnes CO ₂ eq) | (km) | GHG emissions (tonnes CO ₂ eq) |
| Short haul | 29 186 | 5 | 14 590 | 3 | 43 776 | 8 |
| Medium haul | 146 060 | 18 | 144 726 | 18 | 290 786 | 36 |
| Air Long haul | 2 126 909 | 632 | 2 239 694 | 665 | 4 366 603 | 1 297 |
| Car | 24 520 | 4 | 21 591 | 4 | 46 111 | 8 |
| Train | 22 250 | 1 | 7 991 | 1 | 30 241 | 2 |
| Subtotal travel | 2 348 925 | 660 | 2 428 592 | 691 | 4 777 517 | 1 351 |
| Number of travels | 361 | | 302 | | 663 | |
| UNFCCC vehicles | 21 516 | | 12 410 | | 33 926 | |
| | | 3.7 | | 2.18 | | 5.88 |
| Energy consumption^b | (MWh) | GHG emissions (tonnes CO ₂ eq) | (MWh) | GHG emissions (tonnes CO ₂ eq) | (MWh) | GHG emissions (tonnes CO ₂ eq) |
| HC electricity | 406 | 260 | 406 | 260 | 463 | 390 |
| HC heating | 460 | 295 | 460 | 295 | 690 | 442.5 |
| OBS electricity | 121 | 77 | 121 | 77 | 181 | 115.5 |
| OBS heating | n.a | 185 ^c | n.a | 185 | n.a | 277.5 |
| Subtotal energy | 987 | 817 | 493 | 817 | 1 334 | 1 226 |
| Waste generated | (m ³) | GHG emissions (tonnes CO ₂ eq) | (m ³) | GHG emissions (tonnes CO ₂ eq) | (m ³) | GHG emissions (tonnes CO ₂ eq) |
| HC | 161 | 49.8 ^d | 161 | 49.8 | 322 | 74.7 |
| OBS | n.a | n.a | n.a | n.a | n.a | n.a |
| Water usage | (m ³) | GHG emissions (tonnes CO ₂ eq) | (m ³) | GHG emissions (tonnes CO ₂ eq) | (m ³) | GHG emissions (tonnes CO ₂ eq) |
| HC | 1 211 | 83.6 | 1213 | 83.71 | 2424 | 167.31 |
| OBS | n.a | n.a | n.a | n.a | n.a | n.a |
| Total GHG emissions | | 1 614.1 | | 846.6 | | 2 460.7 |

^a Until 31 December 2006.

^b 0.638 kgCO₂/kWh (Germany, electricity mix D). Estimated based on occupied space at the two office buildings (HC and OBS) and staffing ratio. For HC the estimate includes the share for common areas, building technologies and canteen. For OBS does not include emissions for building technologies and common areas. The values for 2005 were estimated as 50 per cent of 2004 values.

^c Estimated based on the surface occupied by UNFCCC using HC as reference.

^d Municipal solid waste incineration, 40 per cent carbon content of waste, 95 per cent efficiency of combustion (IPCC default) and 208 kg/m³ specific weight of the waste. Includes biogenic and fossil CO₂. Using the 2006 IPCC Guidelines for National Greenhouse Gas Inventories this value is about 39.3 tonnes of CO₂ equivalent per year (6.1 tonnes of fossil CO₂ equivalent per year).

^e 0.003 t CH₄/t waste water (FCCC/WEB/SAI/2005, page 158, table 6.1, emission factors for Germany considering domestic/commercial waste water handling).

8. With regard to the GHG emissions of the secretariat an active policy towards a sustainable office and sustainable transport is under development, in cooperation with other United Nations organizations based in Bonn. This policy will cover a broad range of aspects of 'sustainability at work' and is expected to be effective after the secretariat moves to the new United Nations Campus in Bonn. Within the secretariat a Sustainable Office Committee of the Staff Association continued to be instrumental in rising awareness and assisting the secretariat in this work. Initial steps have included development of a sustainable transport policy, actions to reduce paper usage, modest energy efficiency actions and some "green" procurement.