Greening the Blue

Reducing UN's Climate Footprint with ICT

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Main Points

- Walking the Talk in UN
- Our challenges
- ICT as a problem
- A solution for ICT
- ICT as a solution

More than setting a good example

Ban Ki-Moon UN SG

UN SG pledged, on World Environment Day (5 June 2007)

"…to explore ways of making the United Nations more climate friendly and environmentally sustainable, and to develop a climate-neutral approach to its premises and operations."

- Climate Change impacts almost all mandates of UN.
- More and more UN organizations are challenged by their governing bodies and member states
- Our ability depends much on our credibility

Strategy for Climate Neutral UN

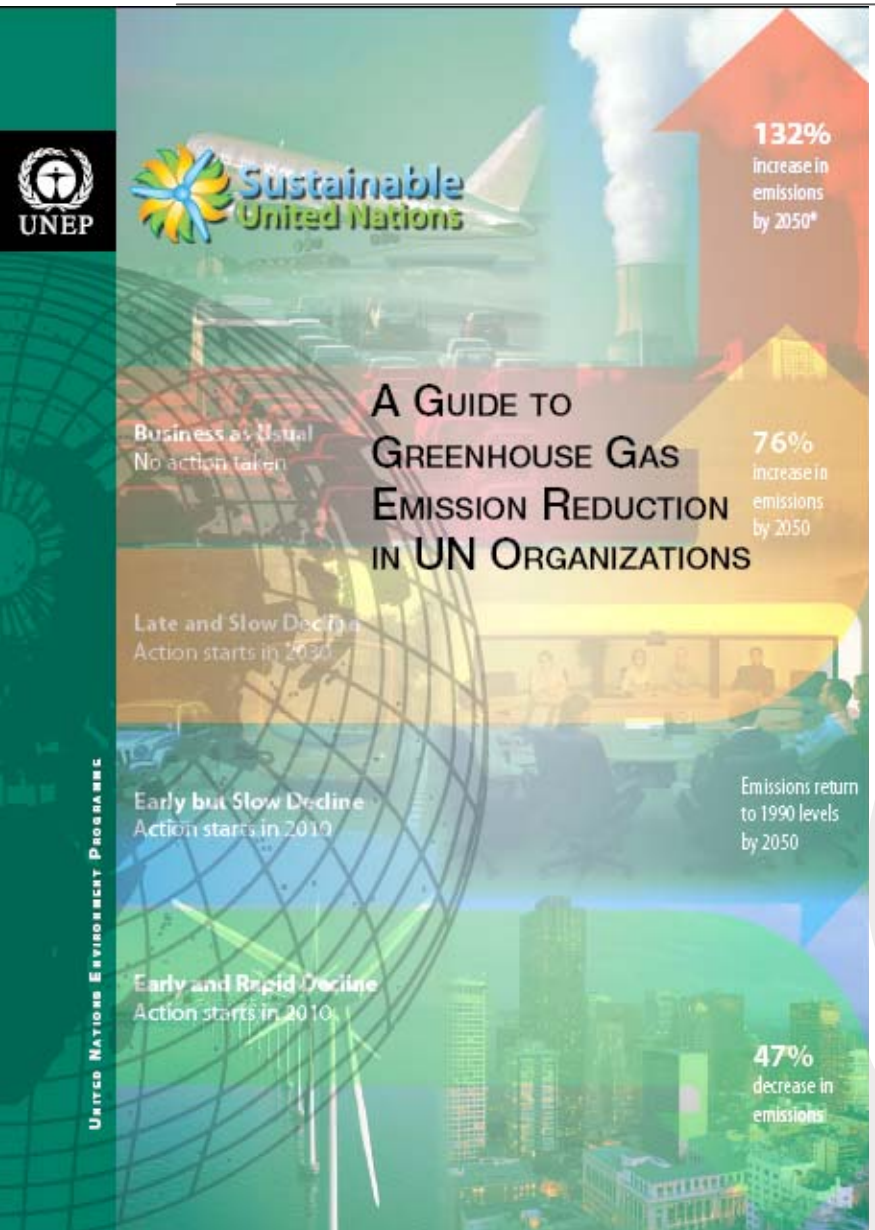
Statement of the Chief Executives Board (26 October 2007) :

"We, the Heads of the United Nations agencies, funds and programmes, hereby commit ourselves to moving our respective organizations towards climate neutrality in our headquarters and United Nations 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; and*
- *Analyze the cost implications and explore budgetary modalities- including consulting with governing bodies as needed - of purchasing carbon offsets to eventually reach climate neutrality.*

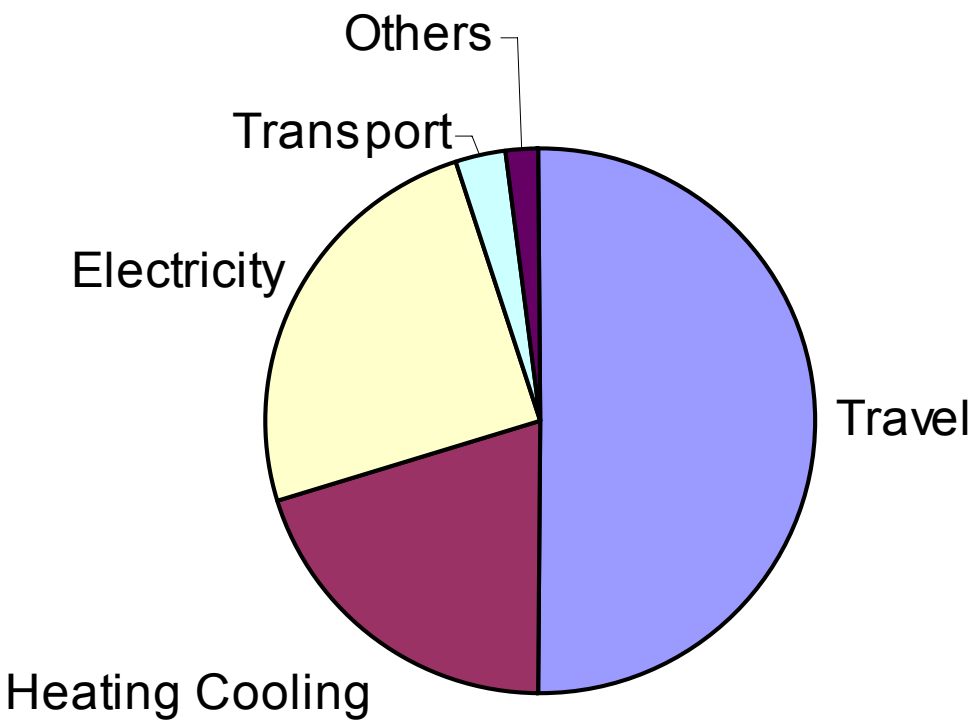
Approach to emission reductions in UN



- Improved hardware: buildings, vehicles, office equipment & design etc.
- Improved software: management systems, common policies, admin regulations, planning, meetings etc.
- Staff engagement, training, incentives, and internal/ external communication
- All 46 UN organisations have started emission reduction
- Emission reduction plans by end 2010

Our Challenges

Typical emission profile for UN orgs

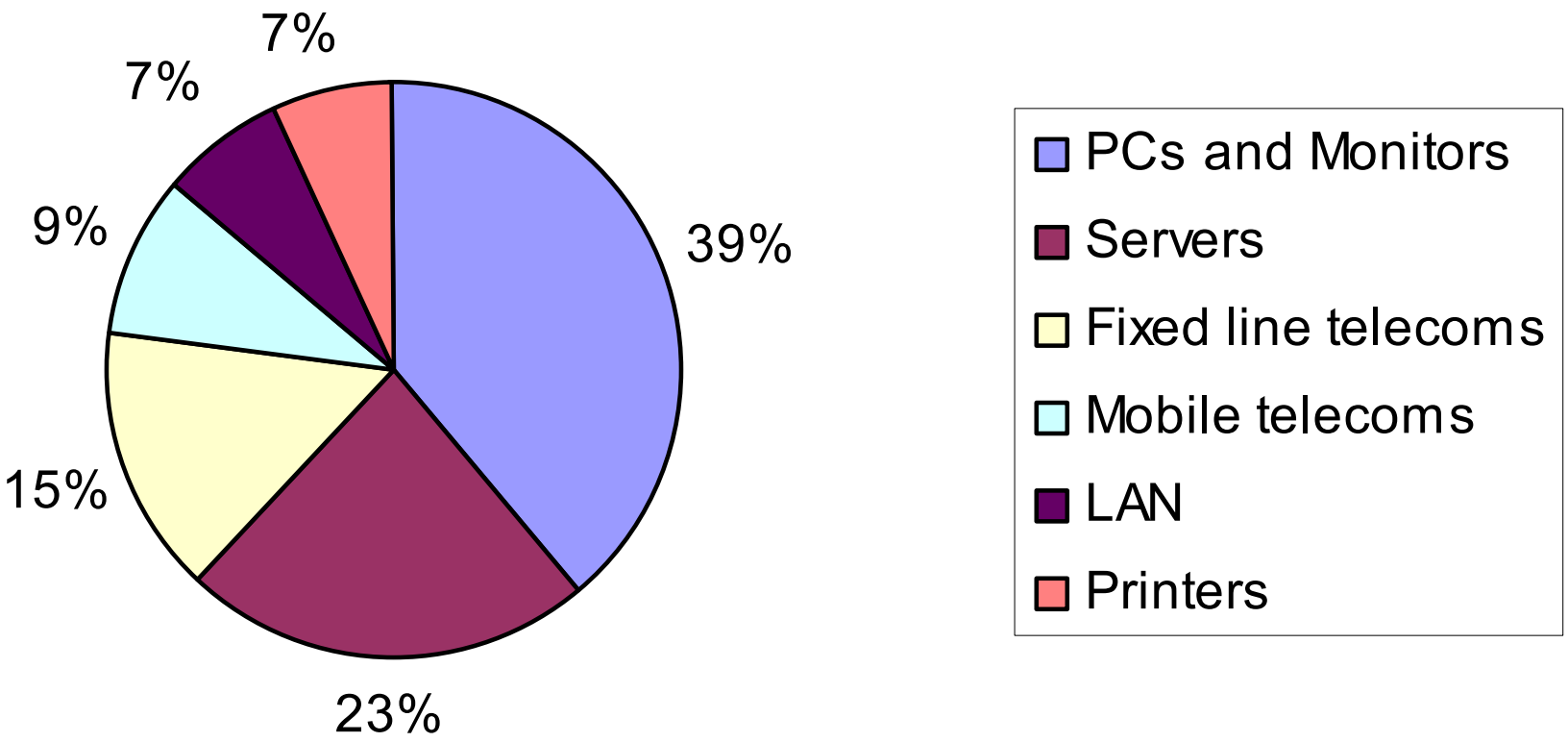


- **Total emissions approximately 1.700.000 tons CO2 eqv (incl. peace keeping operations)**
- **Major source is travel followed by electricity use and heating/cooling**

ICT as part of the problem

- 70.000 staff
- 530+ locations
- Heavy use of ICT equipment
- Estimated 7-10% of direct footprint is ICT related (servers, PC, telecoms, imaging devices etc)
- Compare with ICT global share of emissions (2%)

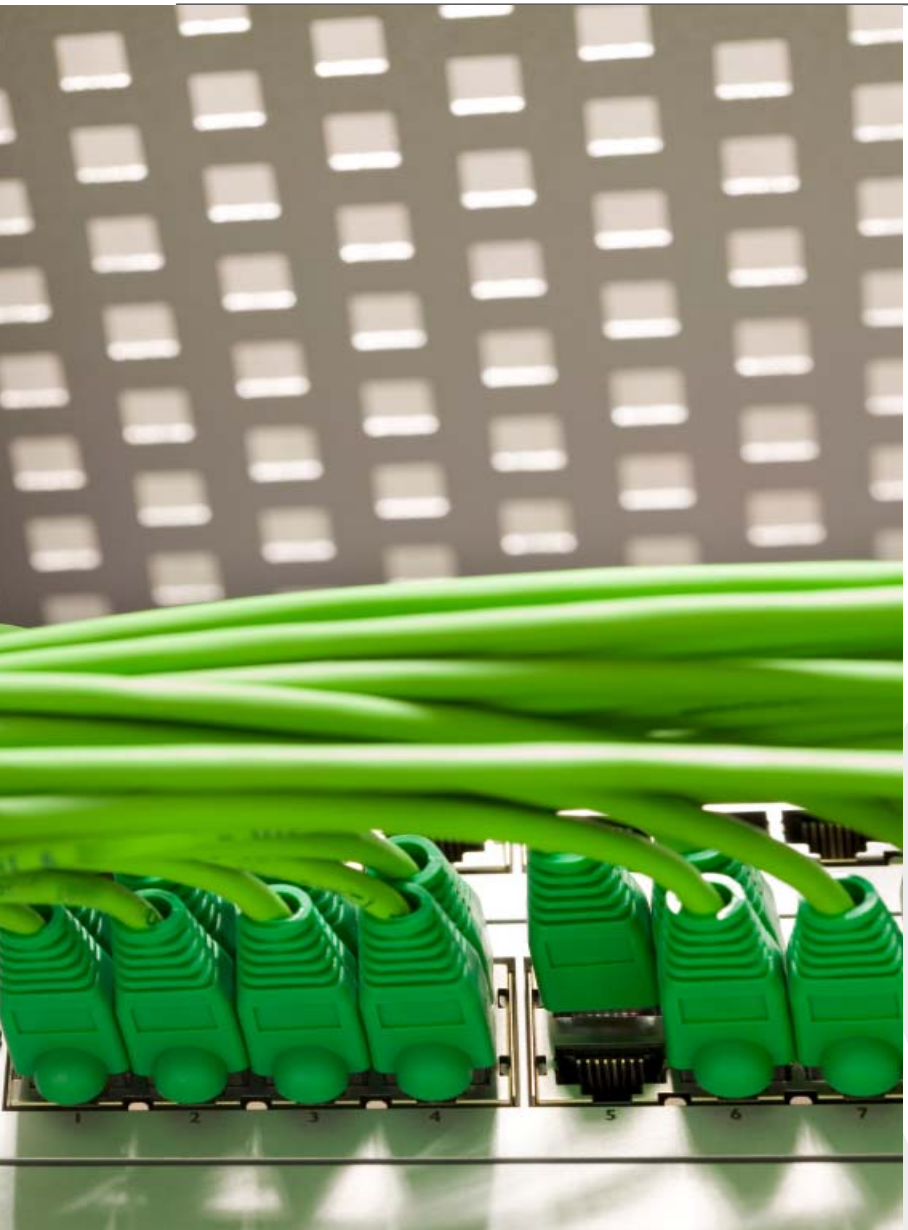
ICT as part of the problem



A solution for ICT

- Energy efficient equipment (desktop vs laptop)
- Energy saving features (screen savers etc)
- LAN connected high capacity imaging devices (ditch the individual printers)
- Printer set-up

A solution for ICT



- Server room cooling (temperatures, segmentation and direction)
- Always on or always available?
- Server virtualization
- Power management
- User behaviour

ICT as a solution

- Improved on-line meeting technologies as a way to reduce the need for travel.
- Smart building management
- Logistics planning
- E-administration
- Distance work
- Remote analysis

From missions to e-missions

Outgoing

- ✓ Telex, telefax, land lines (?)...

Already here

- ✓ Phone conferencing
- ✓ e-mail & direct scanning
- ✓ Video conferencing
- ✓ Personalized video links
- ✓ On-line class rooms

Incoming

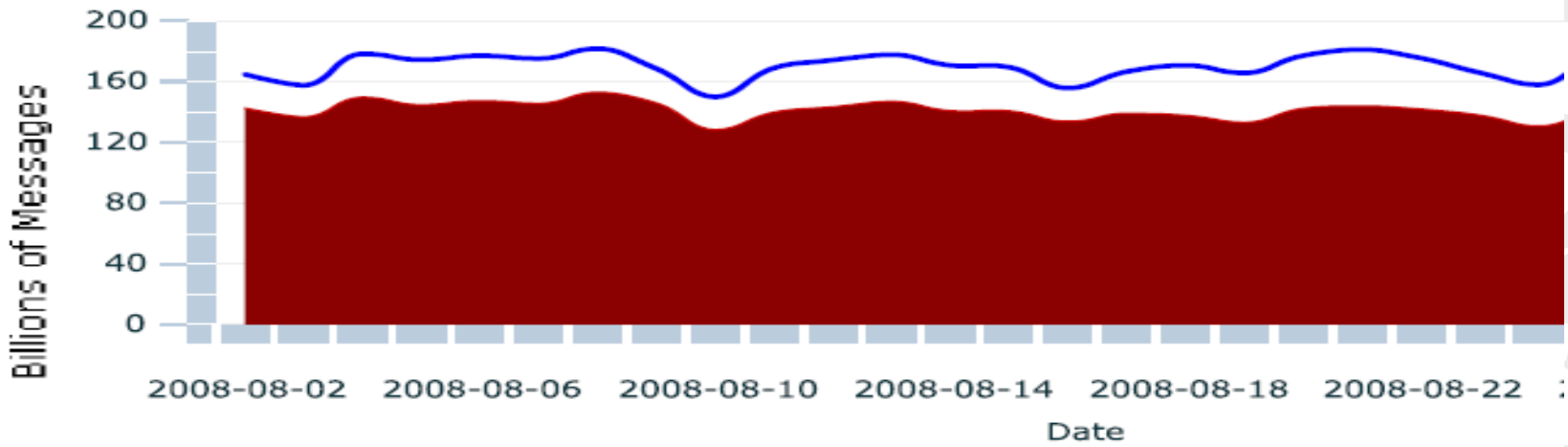
- ✓ Virtual presence
- ✓ Avatars

"ICT develops with a pace faster than any other technology sector. What was science fiction ten years ago is old news today"

e-mail

E-mail provides a way to exchange information between two or more people with minimal costs and in a way that is generally far less expensive than physical meetings or phone calls.

Global Message Volume



Phone conferencing

- ✓ Connects several participants to the same phone conversation.
- ✓ Limited by quality of phone lines and time differences between locations.
- ✓ Sometimes unclear who talks (max number of participants <10)
- ✓ Moderation becoming more sophisticated
- ✓ Can be complemented with Internet sites where participants can display documents, pictures etc.

Video conferencing

- ✓ Provides real-time picture and sound connections between one or several locations
- ✓ Works best with only two locations. Quality deteriorates with increasing number of locations and participants
- ✓ Additional screen/camera may be added to share documents/powerpoints
- ✓ Can be expensive
- ✓ Often present – seldom used

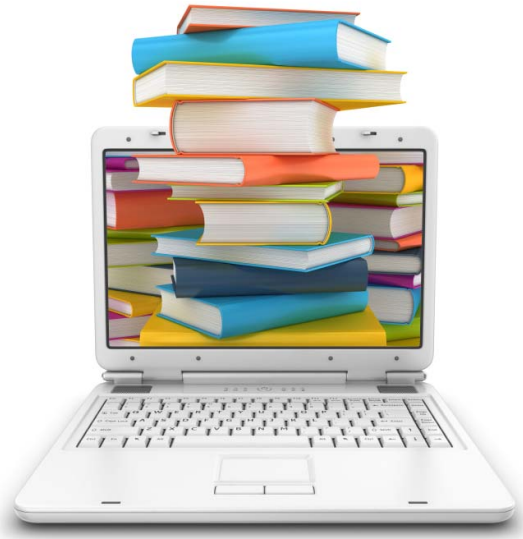
Personalised video link

Personalised video link is an Internet based sound & picture system, providing the same services as video conferencing but between computers/ laptops

- ✓ Software often free (e.g. Skype)
- ✓ No additional costs for connection time
- ✓ Connection between two or several users
- ✓ Sharing of documents, movies, pictures
- ✓ Requires band width and approval of ICT administrator
- ✓ Large share of UN staff are already users

On-line class rooms

Group conferencing / group learning provided through an Internet site connected to by participants.



On-line class rooms

- ✓ Good replacement for lecture style meetings
- ✓ Allows Q&A and sharing of presentations/documents
- ✓ Can be combined with web-casts to connect remote participants to real meetings
- ✓ Internet based makes it cheaper and more reliable than phone or video conferencing
- ✓ Restricted use if participants are from different time zones

Virtual presence

High-quality real-life simulation video conferencing between custom built rooms

- ✓ High quality video and sound links to simulate real-life meetings.
- ✓ Custom built rooms ensure identical environment, direction of sound, and lighting, seamless pictures etc
- ✓ Number of participants limited

Avatars

Two- or three dimensional representation of a person, used to interact in virtual worlds such as Second Life.

- ✓ Avatars and virtual worlds are today used for entertainment, dating services, discussions, product development, PR, research cooperation etc.
- ✓ Allows sharing and modeling of concepts and projects, and visualization of ideas
- ✓ Basic use is plug-and-play. More advanced use requires more skills
- ✓ Based on high capacity Internet links

Distance work

Distance work to:

- **Allow bundling of missions**
- **Reduce need for office space**
- **Improve efficiency of staff**
- **Improve work-life balance**

Reducing UN's climate footprint

- Travel substitution through e-communication.
- Efficiency improvement through e-admin.
- Energy smart ICT equipment
- Staff productivity through (e-supported) distance work
- Staff engagement

Inform and motivate staff

Smart ICT offers significant opportunities to reduce greenhouse gas emissions and improve efficiency in UN. However, realizing the opportunities not only requires ICT investments, but also staff engagement.

Make it personal by

- ✓ Awareness and information campaigns
- ✓ Training on how to use ICT
- ✓ Provide incentives for effective travel habits
- ✓ Make it easy for the staff to be sustainable (admin & technology)

Reducing UN's climate footprint through ICT