Carbon accounting tools -
Requirements from a supranational perspective

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Overview

- Climate Change and Resource Efficiency
- UNEP and the UN getting carbon neutral
- The role of the transport sector
- Carbon Accounting and what UNEP could offer
UN Environment Programme

Thematic priorities

- Climate change
- Disasters and conflicts
- Ecosystem management
- Environmental governance
- Harmful substances and hazardous waste
- Resource Efficiency/ Sustainable Consumption and Production
SCP - What are we talking about?

Consuming and producing more efficiently and differently ...

... and sharing resources between the rich and the poor.
Green Economy:
The Need for Change

Meeting the dual goals of sustainability
– High human development and low ecological impact

Source: WWF Living Planet Report 2006

Meets minimum criteria for sustainability

Exceeds biosphere's average capacity per person, low development

Within biosphere’s average biocapacity available per person, ignoring the needs of wild species

World average biocapacity available per person, ignoring the needs of wild species

Historical trends for named selected countries (2003 dot coloured by region and sized by population):

Resource Efficiency defined...

Efficiency at economic level
+
Environmental dimension
=
Resource efficiency
(energy, materials, water, land & emissions)

Reducing the environmental impact
of consumption and production
of goods and services over their full life cycles

→ By producing more wellbeing with less material consumption, RE enhances the means to meet human needs while respecting the ecological carrying capacity of the Earth.
Meeting the sustainability challenge can present businesses with tremendous opportunities. As we look at ways to address issues of sustainability, new business models will emerge that will help businesses achieve more success in a resource-constrained world with more stringent stakeholder expectations.
What sustainability approaches can companies use?

Approaches to sustainable consumption can be grouped into three broad categories:

1. **Innovation** – business processes for the development of new and improved goods and services; business are shifting to incorporate provisions for maximizing societal value and minimizing environmental impacts.

2. **Choice influencing** – the use of marketing and awareness-raising campaigns to enable and encourage customers and consumers to choose and use goods and services more efficiently and sustainable.

3. **Choice editing** – the removal of “unsustainable” business practices from the marketplace in partnership with other actors (e.g. retailers) in society or plainly via market mechanisms.
How to set up sustainable business practices?

- Strategies & Concepts
- Systems & Processes
- Programmes
- Data Information & Models
- Tools & Techniques

Sustainable business practices
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“The UN system is collectively developing a climate-neutral approach for its premises and operations...The responsibility for the future lies in our hands. Let’s begin change at home.”

Ban Ki-moon, Moving Towards a Climate Neutral UN, December 2009
• Launched in February 2008, the Climate Neutral Network (CN Net) is the initiative of UNEP to promote national, regional and global action and involvement in climate neutrality at all levels of society.

• Based on an interactive website, the CN Net gives participants a platform to present their strategies in climate neutrality to the world, providing visibility and inspiring others. It functions as a network for information exchange and sharing of practical experiences, making the best available knowledge on climate neutrality available to all.
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Energy use by economic sector (worldwide)

[Graph showing energy use by economic sector]

- Residential
- Transport
- Chemical and Petrochemical
- Commercial and Public Services
- Iron and Steel
- Agriculture
- Food and Tobacco
- Paper, Pulp and Printing
- Non-Ferrous Metals
- Textile and Leather
- Wood and Wood Products
- Mining and Quarrying
- Construction

Units: ktoe

Source: IEA
## Environmental Prioritization of Products

<table>
<thead>
<tr>
<th>Category</th>
<th>Study</th>
<th>Dall et al.</th>
<th>Kok et al.</th>
<th>Labouze et al.</th>
<th>Nemry et al.</th>
<th>Mijdam and Witting</th>
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Assessing the Environmental Impacts of Consumption & Production

Studies and perspectives converge on the dominance of:

• Agriculture and food consumption
• **Activities using fossil fuels**

Outlook and other findings:

• Impacts rise with income
• **Pollution embodied in trade becomes more relevant**
• **Harmonized data gathering and better trend analyses will help improved decision making**
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Carbon Accounting

The Greenhouse Gas Protocol

World Business Council for Sustainable Development
UNEP Carbon Footprint: Helping to shape one global benchmark
UNEP/SETAC Life Cycle Initiative

Business, Academic, and Governments working together to:

Bring science-based life cycle approaches into practice worldwide

- Over 2000 individuals collaborating globally
- SETAC brings the science
- UNEP brings access to governments and dissemination
- One stop shop for life cycle approaches
Global Guidance for LCA Databases

LCA guidance documents from 10 Countries/Regions and 7 Organizations
Environmental Product Declaration and Indicators

- Carbon Footprint
- Biodiversity
- Water Footprint

ADEME

afnor
ICAO has developed a methodology to calculate the carbon dioxide emissions from air travel for use in offset programmes.

The ICAO Carbon Emissions Calculator allows passengers to estimate the emissions attributed to their air travel. It is simple to use and requires only a limited amount of information from the user.

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.
Sustainable Buildings and Climate Initiative

• Past experiences with Global e-Sustainability Initiative

• Efforts ongoing to develop similar initiative in the food and mining/metal sectors
Requirements for a successful tool and process

- One global benchmark
- Cross-sectoral tool
- Ownership by organisation with global scope and not within one sector
- Involvement of key players from various sectors at global level
- Based on sound science but easy to use
- Covering the life cycle as far as necessary
- Modular to cover other environmental impacts and resources when required
What UNEP can offer

- Neutral broker
- Catalyser role
- Experienced secretariat providing a home
- Helping to build bridges
  - Global engagement
  - Across sectors
  - Inclusion of public sector
- Part of the UN system to cooperate with other UN agencies like
For more information:

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- Email: guido.sonnemann@unep.org