



Sustainable Procurement Guidelines for Office Stationery

Background Report

Freiburg, 6 May 2009

Prepared by ICLEI - Local Governments for Sustainability (ICLEI) for the United Nations Environment Programme – Division of Technology, Industry and Economics (UNEP-DTIE), 2008

Authors: Sarah McCabe, Simon Clement and Amalia Ochoa, ICLEI

Owner/ Editor: UNEP-DTIE, 15 rue de Milan, F-75441 Paris

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Messages from the United Nations and UNEP

套.I would like to make a public commitment. We are already moving towards making our Headquarters in New York climate-neutral and environmentally sustainable. I would like to see our renovated headquarters complex eventually become a globally acclaimed model of efficient use of energy and resources. Beyond New York, the initiative should include the other UN headquarters and offices around the globe.

We need to work on our operations too, by using energy more efficiently and eliminating wasteful practices. That is why, today, I am asking the heads of all UN agencies, funds and programmes to join me in this effort. And I am asking all staff members throughout the UN family to make common cause with me. 💡



Ban Ki-moon
UN Secretary General
New York, 5 June 2007
World Environment Day



Achim Steiner
Executive Director, UNEP
Geneva, 8 October 2007
117th Assembly of the Inter-Parliamentary Union

“Ban Ki-moon is determined to put global warming at the top of the global political agenda and determined to build the trust so urgently needed if we are to succeed in combating climate change. Under his leadership, the UN is also determined to demonstrate its 'sustainability credentials' by action on the ground and by good housekeeping at home.

Reviews are underway across all agencies and programmes to establish a strategy for a carbon neutral UN and to make the refurbishment of the UN headquarters in New York a model of eco-efficiency.”*

UNEP is committed to take part in the fight for climate change and in showing leadership. We are committed to become carbon neutral by reducing our energy consumption and carbon footprint and by offsetting emissions.

Introduction to this document

This part of the Sustainable Procurement guidelines for office stationery is aimed at readers that want to know the arguments and information behind the described sustainability criteria listed in the accompanying Product Sheets.

Acknowledgements

The authors of the Sustainable Procurement Guidelines for Office Stationery wish to thank the following people and institutions for their valuable support and comments:

Isabella Marras (UNEP), Robert Rodriguez (UNEP), Yann Mercier Savignoni (UNEP), Julie MacKenzie (FAO), Lena Musum Rømer (UNOPS), Sandro Luzzetti (IFAD), Rie Tsutsumi (UNEP), Anatoli Kondrachov (UNOG), Jason Bellone (UNOG), Ranko Vujacic (UNIDO), Andrea Henrichsen (ECLAC), Victoria Beláustegui (UNEP/ROLAC), Carlos Santos (UNEP/ROLAC), Jacqueline Schroeder (UN/PS), Jainaba Camara (UNEP/UNON), Sanjita Sehmi (UNEP/UNON), Strike Mkandla (UNEP), Frederik Schultz (UNRWA), Elaine Blair (UNRWA), Surya Chandak (UNEP/IETC), Julien Lefort (UNEP/IETC), Mika Kitagami (UNEP/IETC), Christian Saunders (UNHQ), Luis Santiago (UNHQ), Simon Hoiberg Olsen (UNESCAP), Dominik Heinrich (WFP), Sabine Adotevi (FAO), Elisa Tonda (UNIDO), Smail Alhilali (UNIDO), Laura Williamson, Jane Nyakang'o (National Cleaner Production Centre of Kenya), Rajeev Garg (National Cleaner Production Centre of India), César Barahona Zamora (National Cleaner Production Centre of Nicaragua), Carlos Arango (National Centre Production Centre of Colombia), Sergio Musmanni (National Centre Production Centre of Costa Rica), Holly Elwood (USEPA), Christopher Kent (USEPA), June Alvarez (Clean and Green Foundation of the Philippines), Christian Jarby (Elsparefonden), Scot Case (Ecologo), Katharine Kaplan (USEPA), Sophie Ravier (UNHQ-DPKO), Jolanta Wozniak (UNICEF); Anis Chibli, Jana Warming and Caroline Lepeu (UNOG); Jainaba Sissoho Camara (UNON).

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Acronyms

AOX	Organic chlorine compounds
APEO	Alkylphenoethoxylate
BREF	Best Available Technique Reference Document
CSA	Canadian Standards Association
ECF	Elementary chlorine free
EDTA	Ethylenediaminetetraacetic acid
EU	European Union
FLEGT	Forest Law Enforcement, Governance and Trade Action Plan
FSC	Forest stewardship Council
GPP	Green public procurement
IPPC	Integrated Prevention and Pollution Control
ISO	International Standards Organisation
OBA	Optical brightening agent
OEM	Original equipment manufacturer
PEFC	Programme for the Endorsement of Forest Certification
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
SFI	Sustainable Forestry Initiative
TCF	Totally chlorine free
VPA	Voluntary Partnership Agreement

Useful definitions

Wood pulp: A dry fibrous material prepared by chemically or mechanically separating the fibres which make up wood.

Pulping: Adding water and applying mechanical action to separate fibres from each other.

Post-consumer waste: Produced by the end consumer. This is used paper generated by offices, homes, schools, e.g., old newspapers, publications, paper. Wood fibres from collected waste paper materials can be reused four or five times before the fibres become too worn out to bind together.

Pre-consumer waste: Is produced from the reintroduction of manufacturing scrap (such as trimmings from paper production, defective aluminium cans, etc.) back into the manufacturing process. Pre-consumer waste is commonly used in manufacturing industries, and is often not considered recycling in the traditional sense. Pre-consumer recycled paper comes from paper that has never reached the end-consumer.

Totally chlorine free (TCF): Paper that has been bleached without the use of chlorine or chlorine based chemicals. Virgin paper produced without chlorine or chlorine derivatives (the bleaching process uses oxygen-based compounds).

Processed chlorine free (PCF): Uses totally chlorine free processing and includes recycled content. Both the recycled fibre and any virgin fibre must be bleached without chlorine or chlorine compounds. The paper contains at least 30% post-consumer waste.

Elemental chlorine free (ECF): Paper that has been bleached using chlorine dioxide rather than elemental chlorine - a process that reduces the formation of many of the harmful chemicals. However, sometimes even some ECF processes release significant levels of chlorine compounds (AOX compounds – Adsorbable Organic Halogenated compounds).

Recycled material: This is post-consumer material and pre-consumer material. It does not include by-products of an industrial process that can be, and regularly are, used in either the same process, or in a different process, except that proportion that originated as post-consumer material and pre-consumer material.

1. Introduction

This background report, together with the practical Product Sheets (on Paper, Paper Consumables, Toner Cartridges and Ink, and Writing Implements), constitutes the Sustainable Procurement Guidelines for Office Stationery for the UN. The main objective of this background report is to give comprehensive information on the rationale behind the sustainable procurement recommendations made in the Product Sheet. This covers aspects such as: key environmental impacts; key social considerations; appropriate verification schemes; and indicative market availability of sustainable products, amongst others.

Sustainable procurement means thinking carefully about what to buy, buying only what you really need, purchasing products and services with high environmental performance and considering the social and economic impacts of purchasing decisions.

Scope

Office stationery includes numerous products and is usually considered to be a relatively straightforward product area for sustainable procurement that ensures high visibility within the office or public administration. Users of office stationery, that is staff, will immediately realise that their management are making an effort to improve the sustainability performance of the organisation's operations which in turn can help build awareness of the (new sustainable procurement) policy.

Office stationery encompasses writing instruments (pens, pencils, markers, for example), plain (unused) paper for writing, printing and copying purposes (up to 170g/m²) sold in sheets or reels, and also finished paper products, such as: writing pads, drawing books, folders, files, etc.

These guidelines cover a mix of the above products:

- Paper consumables: Paper (for writing, printing and copying purposes – up to 170g/m²), envelopes, post-it notes and notepads
- Toner cartridges and ink
- Writing implements: Pens and markers

2. Incorporating Sustainability into the UN Procurement Process

2.1 Relevant UN procurement procedures

This section aims to give an overview of how sustainability criteria may be incorporated into different UN procurement procedures and the tendering process.

The UN Global Market Place (<http://www.ungm.org>) is the main purchasing platform for UN agencies. Here suppliers (vendors) can register themselves to offer supplies or services for particular UN agencies. This includes the member organs of the UN and specialised agencies outlined in the table below.

To find out more about sustainable procurement in the UN, visit: <http://www.ungm.org/SustainableProcurement/>.

Agencies participating in the UNGM

<ul style="list-style-type: none"> • Food and Agriculture Organization of the United Nations (FAO) • International Atomic Energy Agency (IAEA) • The International Fund for Agricultural Development (IFAD) • International Labour Organization (ILO) • International Trade Centre UNCTAD/WTO (ITC) • International Telecommunication Union (ITU) • Organisation for the Prohibition of Chemical Weapons (OPCW) • United Nations Development Programme (UNDP) • United Nations Educational, Scientific and Cultural Organization (UNESCO) • United Nations Population Fund (UNFPA) • United Nations High Commissioner for Refugees (UNHCR) 	<ul style="list-style-type: none"> • United Nations Children's Fund (UNICEF) • United Nations Industrial Development Organization (UNIDO) • United Nations Office for Project Services (UNOPS) • United Nations Procurement Division (UN/PD) • United Nations Office at Vienna (UNOV) • United Nations Office at Geneva (UNOG) • United Nations Economic Commission for Africa (UNECA) • United Nations Relief and Works Agency (UNRWA) • World Food Programme (WFP) • World Health Organisation (WHO) • Pan American Health Organisation (PAHO) • World Intellectual Property Organization (WIPO) • World Meteorological Organization (WMO)
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The standard procurement procedures followed by UN offices and agencies are the following (with minor variations among agencies):

Values of purchase orders up to US\$ 30,000

A direct selection of (normally three) possible suppliers is made by the procurement officer. Based on an analysis of the quotations received, the order is awarded to the supplier that meets the specifications and delivery terms and has the lowest price.

Values of purchase orders from US\$ 30,000 up to US\$ 100,000

Limited competitive bidding is carried out by inviting a selected shortlist of suppliers to respond through submitting sealed bids to the tendering authority (i.e. UN agency). The shortlist include suppliers from developing countries, including the recipient country, under-utilised donor countries and other donor countries. The order is awarded to the most qualified and responsive contractor submitting the lowest bid in terms of price.

Values of purchase orders from US\$ 100,000 and up

International competitive bidding is the preferred approach for orders with a higher financial significance. Where possible, the invitation to bid should be advertised in the UNGM (see www.ungm.org and www.devbusiness.com) or in other trade publications.

The system used for the evaluation of the bids depends on the type of method used for sourcing suppliers: If an Invitation to Bid (ITB) is issued, contracts are awarded to the lowest priced compliant bid, although there is flexibility in determining compliance.

If a Request for Proposals (RFP) is issued (typically used for the purchasing of more complex products and services), then the contract is awarded to the bid offering best value for money – this involves an integrated assessment of technical, organisational and pricing factors and can also include social and environmental issues.

Depending on the value of the contract and the procurement procedure used, a number of specific steps will be followed where sustainability considerations can be included. These are described below:

Procurement planning – subject matter

The subject matter of the contract defines and, more importantly, communicates what the purchasing authority intends to purchase. Explicitly phrasing the subject matter of the

contract in such a way so that it integrates the sustainability goal that is to be achieved by the contract is an important first step to take in the tendering process. It can integrate sustainability objectives if there is a clear link and relevance to the purchase in question. As all conditions stipulated in the other steps of the tendering process need to maintain a clear link to the subject matter of the contract, clear and explicit wording of the subject matter is an effective way to ensure a sustainable purchase.

Requirement definition – specifications about the functionality, quality and specific characteristics of the product or service

The tender specifications (or technical specifications) provide detailed information on the functionality, quality and other characteristics (e.g. packaging, disposal, etc.) of the product to be purchased. They provide the opportunity to set minimum environmental and/or social requirements which all bidders must meet.

Sourcing – suppliers, vendors and manufacturers

Criteria for sourcing (or pre-selecting) suppliers, vendors and manufacturers assess the technical and professional qualifications of vendors to produce and/or supply the requested products. If sustainability criteria are part of the subject matter and/or the technical specifications, sourcing criteria can be included that assess the sustainability performance of bidders to ensure that only bids from 'eligible' companies are considered in the evaluation stage. They can assess the bidding company's operations (and the companies it subcontracts or uses) as a whole, rather than only the end products purchased. The criteria included in this stage can address issues such as the availability of information on products, (sustainability) experience of the bidder, and security of supply. This can be a useful approach to improve the general environmental management and corporate social responsibility of companies contracted by the UN.

Evaluation – using life-cycle costing and bonus points system

Evaluation criteria are used to evaluate and compare the bids received which meet the minimum specifications (i.e. compliant bids).

In sustainable procurement, it is essential to indicate that the contract will be awarded to the offer that provides “best value for money” – the term used if criteria other than just the price will be assessed when comparing bids. Evaluation criteria are used to evaluate the performance of a bid both in terms of price and other criteria, such as environmental performance.

As with all phases of the tendering process, the tender documents published by the purchasing authority must clearly set out the various evaluation criteria that will be used to evaluate bids (such as price, technical quality, environmental quality, social performance, etc.) as well as the weight in percentage terms allocated to each aspect. In sustainable procurement, evaluation criteria can be used to encourage higher levels of sustainability performance than those demanded in the specifications, without risking significant increases in cost. Sustainability evaluation criteria should, altogether, account for at least 10 to 15 % of the total points available. Example evaluation matrices are provided in the Annexes of the Product Sheets.

Contract review and award – contract performance clauses

Contract clauses are binding on any company winning the bid, and should therefore be possible for any company to comply with. It makes sense to include sustainability criteria in the contract clauses only if they are not included in other sections of the tender. Contract clauses also include reference to penalties for non-compliance with the specifications or for cases where a supplier has provided a false written guarantee.

Figure 1 below outlines the procurement process as set out in the UNDP Procurement

Manual. This diagram highlights the stages at which environmental and social procurement interventions should be integrated.

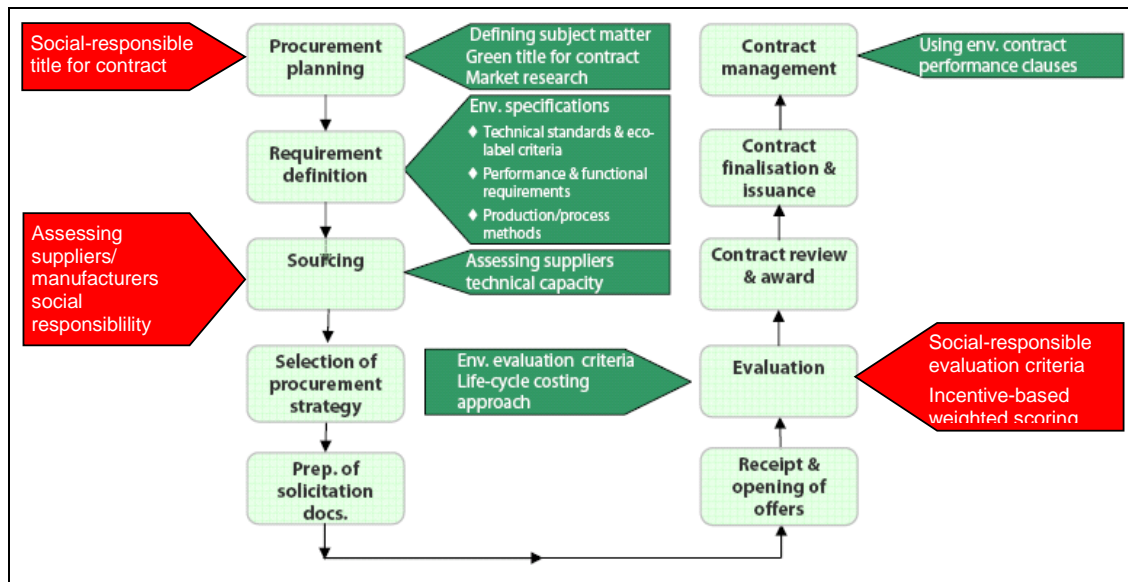


Figure 1: Environmental and socially-responsible interventions in the procurement process (Source: UNDP Environmental Procurement Practice Guide 2008, adapted by ICLEI)

2.2 The role of requisitioners

Requisitioners are UN officials that identify the need to purchase a product or a service and assist develop the technical specifications¹. A report on Sustainable Procurement in the UN system of 2006 indicated that requisitioners “are in a sense the catalyst of the procurement process” and it is therefore “at this level that sustainable development criteria need to be established”². The developed sustainability criteria (see Product Sheet) are designed to be used by requisitioners and procurement staff.

2.3 The United Nations Development Programme Environmental Procurement Practice Guide

This Background Report and the Product Sheet accompanying this document aim to provide specific procurement criteria for use in procurement documents for office stationery. For additional guidance on building support for sustainable procurement and achieving ongoing implementation in your office, it is recommended that you read the UNDP Environmental Procurement Practice Guide (UNDP, 2008)³. While focusing on environmental procurement, this practice guide is relevant to sustainable procurement as well. This document provides useful information on planning and implementing environmental procurement including:

- Implementing environmental procurement incrementally using the “UNDP green continuum”,

1 United Nations (2008) “United Nations Procurement Manual” Department Of Management Office Of Central Support Services Procurement Division available at: http://un.org/Depts/ptd/pdf/pm_english_08.pdf

2 Background Paper on Sustainable Procurement and Environmental Management Programmes for the UN: http://www.unemg.org/download_pdf/EMG11/SustProcurement.pdf,

3 United Nations Development Programme (UNDP), (February 2008) Environmental Procurement Practice Guide, UNDP Practice Series, Procurement Services Office, Quality Assurance and Professionalisation Unit, available at: <http://www.undp.org/procurement/documents/UNDP-SP-Practice-Guide-v2.pdf>

- Setting priorities for environmental procurement, and
- Conducting market analysis to ensure the market will be able to respond to your green criteria.

Addressing these points will be important to ensure that sustainable procurement becomes “business as usual” within your office.

3. Key environmental impacts

The most important environmental and social impacts relating to pulp and paper production for paper consumables are the following:

- i) Forest destruction and loss of biodiversity (e.g. illegal and sustainable logging of forests used to produce virgin paper fibres);
- ii) Water and energy consumption during production (of recycled paper as well as paper produced from virgin fibres);
- iii) Use of chemicals namely chlorine and chlorine substances;
- iv) Optical brightening agents (for whiteness, brightness and shade); and
- v) Use of other chemical substances (e.g. colorants and dyes).

The most important environmental aspects related to printing consumables and other office stationery are: waste from disposal (unless reprocessed or recycled), packaging (plastics), heavy metals (e.g. mercury, cadmium, lead, nickel) and hazardous substances used for the production of toner materials.

3.1. Elements and potential environmental impacts of office stationery

3.1.1. Paper and paper consumables

Forest destruction and loss of biodiversity

In 2006, the total European paper and board consumption was close to 90 million tonnes. Office paper represented 4% of the volume, while all papers for printing and writing uses represented around one third of the total European paper and board consumption. The other two thirds included packaging, followed by newsprint and tissue and also other applications⁴.

Annually 500,000,000 m³ of wood is used by the paper industry world-wide (15% of total logging) from which almost 40% is used for coated and uncoated paper. Paper consumption in Europe increased by 120% between 1983 and 2005 with an average yearly rise of 2.5% in the last 10 years⁵. The wood used for paper production can either come from tree plantations or forests with fully functioning ecosystems.

Industrial logging in virgin or primary forests (in Amazonia, Indonesia, Russia, Canada etc.) and the substitution of functioning ecosystems with tree plantations leads to a loss of biodiversity and makes it increasingly difficult to guarantee that wood derives from legal forestry activities.

Illegal logging takes place when timber is harvested in violation of national forestry laws. The clandestine nature of illegal logging makes its scale and value difficult to estimate in relation to the global trade in forest products, but strong evidence suggests that it is a substantial and growing problem. The World Bank's 1999 review of its global forest policy observed: "In

⁴ CEPI (Confederation of European Paper Industries). Facts and figures. Paper consumption. <http://www.cepi.org/content/default.asp?pageid=101#>

⁵ ibid

many countries, illegal logging is similar in size to legal production. In others, it exceeds legal logging by a substantial margin."⁶ Furthermore, global loss of forested areas amounts to approx. 13 million ha per year, almost half of which are primary forests in the tropics (FAO 2005)⁷. But it is not just a tropical country problem; countries of the former Soviet Union, for instance, are facing problems regulating their forests. Russia, for example, is thought to have rates of illegal logging at around 25%⁸.

Fast-wood plantations are neither inherently good nor inherently bad⁹. They can generate negative environmental impacts compared to natural, indigenous forests, such as a loss of biodiversity, disruption of local water cycles, loss of soil productivity and increased risk of pests and diseases, however such effects can be balanced if careful and intelligent assessment of the social, environmental and economic consequences is carried out and if they are well-designed and managed, and do not replace natural forests¹⁰. All the major sustainable forest management certification schemes allow the certification of plantations (provided they meet certain requirements, e.g. the FSC only allows certification of plantations in areas converted from natural forests before November 1994).

In order to reduce these impacts, there are two solutions:

- 1) Produce/use paper from virgin fibre stemming from legally harvested woods and from sustainably managed forests.

The certification of sustainable forest management (such as the FSC, PEFC, CSA, or SFI)¹¹ guarantees both legality and the respect of environmental and social standards in forest exploitation, although the standards and verification systems differ between the various certification schemes.

To guarantee that wood is legally harvested, the European Union has also established a licensing system in the framework of its Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan designed to identify the legality of the production of imported products, the FLEGT license. In order to obtain the license, Voluntary Partnership Agreements (VPAs) have to be signed between timber-producing countries and the EU. Timber products, which have been legally produced in VPA partner countries, will be licensed with a FLEGT license for the legality of production by a third-party, and only licensed products from these partner countries will be allowed access to the EU^{12 13}. As yet no FLEGT license exists as the voluntary partnership agreements are currently under negotiation¹⁴.

The legal origin of wood can also be demonstrated through a tracing system being in place.

⁶ Timber Trade Federation. <http://www.forestsforever.org.uk>

⁷ The Global Forest Resources Assessment 2005. FAO. 2005.

⁸ Timber Trade Federation. <http://www.forestsforever.org.uk>

⁹ Christian Cossalter and Charlie Pye-Smith. *Fast-wood forestry. Myths and realities*. CIFOR, the Centre for international forestry research. 2003: http://www.cifor.cgiar.org/Publications/pdf_files/books/forestperspective.pdf,

¹⁰ Arborvitae, the IUCN/WWF Forest Conservation Newsletter n°31. September 2006. Article: Forest plantations threatening or saving natural forests?

¹¹ FSC (Forest Stewardship Council), PEFC (Programme for the Endorsement of Forest Certification schemes) CSA (Canadian Standards Association) and SFI (Sustainable Forestry Initiative).

¹² Article 4, paragraph 1 of the Council Regulation (EC) No 2173/2005 of 20 December 2005 on the establishment of a FLEGT licensing scheme for imports of timber into the European Community.

¹³ This system is similar in effect to other systems already in place in several international agreements, including, amongst others, the Convention on International Trade in Endangered Species (CITES) and the Kimberley Process on conflict diamonds, which feature license or permit systems, and tracking mechanisms, designed to exclude particular categories of products from international markets. The regulation to implement the FLEGT licensing system was adopted by the EU Council in December 2005.

¹⁴ More information at: http://ec.europa.eu/development/policies/9interventionareas/environment/forest/filegt_en.cfm

These voluntary systems may be 3rd party certified, often as part of ISO 9000 and/or ISO 14000 or EMAS management system.

The legality and sustainability of wood fibres is important as, in the EU, approximately 25% of pulpwod and 15% of market pulp is imported¹⁵.

2) Produce/use paper from recovered paper

In order to produce recycled paper, paper based on virgin fibre needs to be produced. Both types of paper are part of the same production chain. In fact, it is possible to recycle high-quality paper, such as graphic paper, several times for either the same, or lower quality uses, reducing the need for virgin fibre.

Both types of paper need to be purchased, as the amount of recycled paper cannot cover the total paper demand in Europe, and as there would not be recycled paper without having paper made from virgin fibres. The key issue is recyclability, not the recycled origin of fibres.

Water and energy consumption during production

Detailed information on the Best Available Techniques in the Pulp and Paper industry and the associated emission and consumption levels during production are available in the above-mentioned BREF report for the Pulp and Paper industry. The water and energy consumption levels can vary widely depending on the grade/type of paper produced, the different techniques applied and depending on whether pulp and paper are produced in the same plant (integrated plant) or if the pulp for paper production is bought on the market (non-integrated plant). According to the BREF and other studies¹⁶, production processes for paper based (totally or mainly) on post-consumer recovered paper fibres (recycled paper) use much less energy and water than those for paper based (totally or mainly) on virgin fibre:

- The water consumption for the production of recycled or non-recycled graphic paper is about 10-15 m³/t in plants working with best available techniques according to the BREF. In addition to this, for paper made out of fresh pulp the water consumption for pulp production has to be included, which is about 15-55 m³/t depending on the kind of pulp produced and the bleaching technique used. Water consumption for the production of non-recycled paper therefore sums up to about: 25-70 m³/t, compared with recycled paper (including the preparation of recovered paper pulp): 10-15 m³/t.
- Energy consumption for the production of paper based (totally or mainly) on virgin fibre is 5,000-10,700 kWh/t, compared to a consumption for the production of recycled paper of 1,700-5,500 kWh/t.

Pulp and paper industries in the EU have substantially improved their technology, developing and using, in many cases, best available technologies in order to minimise their environmental impacts. For example, paper mills that produce paper based on virgin fibre produce almost half their primary energy consumption from biomass. These changes have been taking place both in wood fibre and recycled fibre mills. However, the production process of paper based (totally or mainly) on virgin fibre is still characterised by a higher water and energy consumption (in the pulp production phase), but in many cases a lower fossil CO₂ emission.

¹⁵ Annual Statistics 2005. European Pulp and Paper Industry. Confederation of European Paper Industries (CEPI). 2005.

¹⁶ Quantitative impacts are estimated based on different studies and related to average figures for craft and paper based (totally or mainly) on post-consumer recovered paper fibres (recycled paper) ("Ökobilanzen für graphische Papiere", UBA 2000, "Ökologischer Vergleich von BüroPapieren in Abhängigkeit vom Faserrohstoff", IFEU 2006 and "Integrated Pollution Prevention and Control (IPPC) Reference Document on Best Available Techniques in the Pulp and Paper Industry", European Commission 2001.).

Chlorine and chlorine substances

Chlorine or chlorine compounds as well as other chemicals (such as ozone or hydrogen peroxide) can be used in the bleaching process in order to, among other things, obtain a final product with a high whiteness level.

All papers, including paper based (totally or mainly) on virgin fibre, can be purchased with different whiteness levels. Traditionally when paper production allowed the use of elementary chlorine for bleaching, office paper used to be very white directly from the process and by the use of optical brighteners.

However, chlorine compounds used in the bleaching process can react with existing organic substances in water, creating organic chlorine compounds (AOX). These halogenated organic compounds (dioxins, chlorinated phenols) may be toxic and are poorly degradable in the aquatic environment.

In order to avoid the emission to the environment of such compounds, the bleaching process should be totally chlorine free (TCF) or elementary chlorine free (ECF) with the strict control of AOX levels after depuration.

Optical brightening agents

The choice for a certain paper type is often based on three characteristics: whiteness, brightness and shade.

Whiteness is the measurement of light reflectance across all wavelengths of light comprising the full visible spectrum (outdoor daylight) and therefore it is the one that best correlates with your visual perception of the paper. CIE Whiteness (ISO Standard 11475) is the most commonly used whiteness index. Papers that reflect a higher percentage of blue light tend to measure the highest, while those reflecting a higher percentage of yellow light tend to yield lower values. The normal maximum whiteness level would be 100, but higher values can be obtained if papers have added optical brightening agents (OBAs). The function of an OBA is to reflect ultraviolet (UV) light from the light source as visible light in the blue spectral region giving measurements in excess of 100.

Brightness is a measurement of light reflectance of the specific wavelength of blue light. Simply put – brightness represents a more narrow measurement of light reflectance than whiteness. The beginning brightness range for a base paper pulp is from 0-100 calculated normally with the ISO Standard 2469. During the papermaking process, OBAs are frequently added to increase a paper's whiteness as well as brightness.

Shade is a measurement of the colour of paper. It is an important characteristic within the definition of a paper's whiteness and it is measured with the most universally accepted system of colour measurement, the CIE LAB model. It is commonly accepted that there are four groups of white shades: true white, cream white (yellowish), blue white (bluish) and red white (reddish).

If you want to ensure the reader's comfort it is better to select a true white or cream white paper to minimise eyestrain¹⁷. That is to say, papers that do not reflect more blue than normal in light – in other words papers with ISO brightness and CIE whiteness not exceeding the value 100 and therefore, papers with limited or no OBA content.

Lower brightness/whiteness levels might also represent a lower need for strong bleaching of pulp and paper surface treatment, reducing related environmental impacts in the paper production process. OBAs have impacts on human health and the environment, especially aquatic, as they are difficult to break down, both in water purification systems and biologically in aquatic systems. They may cause allergic reactions to people and are toxic to aquatic life as they are not biodegradable.

Other chemical substances

17 "Three Key Paper Properties: Whiteness, Brightness and Shade". Xerox Corporation. 2005.

Chemical substances that may be used in paper production can also have negative effects on health and the environment. For example:

Some of the synthetic polymers that could be used in pulp and paper production are classified as carcinogenic, mutagenic, teratogenic, or toxic and may cause adverse effects on the aquatic environment.

Colorants and dyes can contain heavy metals such as mercury, lead, cadmium or hexavalent chromium compounds as constituents. These may cause severe health problems by bioaccumulation and biomagnification¹⁸. Problems do not only occur during the handling of these substances but also when they are discharged into the environment with waste water, or in the form of incineration ashes, etc.

EDTA (ethylenediaminetetraacetic acid) is a very strong complexing agent. Complexing agents are reactive composts that can re-mobilise heavy metals in river sediments when they are discharged into the aquatic environment. While this is true for all complexing agents, EDTA is of particular concern because it is very poorly biodegradable and has stronger complexing properties than other substances.

APEOs (Alkylphenoethoxylates) are transformed in the environment into metabolites that are more toxic than the original surfactant, and both APEOs and metabolites are suspected to have hormone-mimicking, estrogenic effects affecting the reproductivity of male organisms, and have high bioaccumulation factors.

Reducing the key environmental impacts

The table below summarises the main environmental impacts related to copying and graphic paper as described above, and indicates the focus of measures to address these impacts.

Table 1. Key environmental impacts – Copying and Graphic Paper		
Impact		Sustainable Procurement Approach
<ul style="list-style-type: none"> • Forest destruction and potential loss of biodiversity • Emissions to air and water during pulp and paper production • Energy and water consumption during production • Chemical consumption during production • Waste generation during production such as rejects and sludge 	→ →	<ul style="list-style-type: none"> • Procurement of paper based on post-consumer recovered paper fibres (recycled paper) or paper from legally and sustainably harvested wood • Procurement of paper produced in factories with low energy consumption and emissions • Avoidance of certain substances in paper production and bleaching

3.1.2. Writing implements

For the purposes of these Guidelines, writing implement addresses commonly used pens and markers. The environmental impacts of writing implements are notable considering the number of end users and thereby the quantities purchased globally. In the United States, it is estimated that around 1.6 million single-use pens are thrown away each year, ending up in landfills as solid waste¹⁹. The most significant impacts on the environment are associated

¹⁸ Bioaccumulation occurs when an organism absorbs a toxic substance at a rate greater than that at which the substance is excreted or degraded biologically. Biomagnification is the increase in [concentration](#) of a substance that occurs in a [food chain](#) as a consequence of: food chain [energetics](#) and low (or non-existent) rate of excretion/degradation of the substance. Although sometimes used interchangeably with ['bioaccumulation'](#), an important distinction is drawn between the two: bioaccumulation occurs within an organism, and biomagnification occurs across trophic (food chain) levels.

¹⁹ "Sustainable Purchasing Guide. Moving Towards Sustainable Procurement" (2006). Resort Municipality of

with waste generation and the use of heavy metals and harmful substances. Substituting some materials with recycled material is one good alternative. These are described below.

Generation of waste

Waste from the disposal of single-use pens and markers (usually made of plastic) can be substantially reduced if refillable pens and markers are purchased. This is because the ink is the only consumable part, while the barrels (usually made of plastic) are durable. Not only is less waste generated but the resources used in the manufacturing process are also spared.

Heavy metals and harmful substances

Switching to purchasing water-based markers eliminates the sustainability impacts associated with petroleum-based solvents (SO 1,2), including the health impacts (SO 4); most permanent markers are solvent-based. For most general office purposes, non-toxic, water-based markers can be substituted for permanent or waterproof ink.

Dyes in inks should not contain any heavy metals, such as antimony, arsenic, barium, cadmium, mercury, selenium, lead and/or hexavalent chromium. They should also not be based on volatile organic compound solvents. The criteria of the Nordic Swan ecolabel for Writing Instruments provide an exception for certain writing implements: overhead markers, white board markers and text markers (permanent fibre pens).

In general, it is recommended to purchase water-based markers.

Recycled material

There are several elements of writing implements that can be made from recycled material, for instance, reducing the amount of virgin wood used for the production of pencils.

Rainforest hardwoods and cedar are commonly used to make pencils. Pencils made from recycled materials also provide a good end-use for various kinds of waste newspaper, cardboard, and plastic materials, diverting them from landfills.

The ink tube from inside a pen can be made from recycled plastic, the ballpoint can be made from recycled metal and the barrel can be made from a variety of materials, such as unbleached recycled paper, recycled plastic or rubber.

3.1.3. Toner and ink cartridges

Toner Cartridges are products that are generally used in various types of office appliances such as laser printers, photocopiers and fax machines. Toner cartridges for laser printers and multifunctional devices are replaced once the monochrome or colour toner powder therein is used up. The volume of use of the devices suggests a considerable waste amount of several million empty modules per year, unless they are reprocessed and recycled. It is estimated that in the United States alone over 350 million toner cartridges are disposed of on an annual basis²⁰.

During usage and replacement processes, ink powder may disperse and irritate the human respiratory system and causes disease due to the hazardous constituents of the chemicals and heavy metals used.

Production of typical toner cartridges from original equipment manufacturers (OEMs) consume a significant amount of energy (production burns approximately 3 quarts of oil per cartridge) and are composed of various natural resources: approximately 40% plastic, 40% metal and 20% rubber, foam and paper.

Purchasing remanufactured toner cartridges²¹ and recycling empty cartridges are the most

Whistler, Canada.

²⁰ "Responsible Purchasing Guide –Toner Cartridges" (2008). Responsible Purchasing Network, U.S.

²¹ There are over 10,000 remanufacturers worldwide. Source: European Toner and Inkjet Remanufacturers (ETIRA).

effective ways to reduce the environmental impact of these products. Remanufactured toner cartridges are used toner cartridges refilled with toner whose expendable parts have been replaced as required.

Empty toner cartridges should also be managed appropriately at their end of life. That is to say, improperly discarding empty toner cartridges contributes to waste and can also contaminate the natural environment due to their hazardous contaminants. Cartridges can typically be remanufactured three to five times before disposal. When remanufacturing is no longer feasible, recycling should be carried out as 95% of the component weight is recyclable.

In Europe, both the Nordic Swan and Blue Angel have criteria for remanufactured toner cartridges themselves which cover a number of environmental impacts. These cover four areas (not all issues are covered by both labels):

Ecolabels covering toner cartridges tend to focus on the following environmental impacts:

- Chemicals contained in the toner powder, which can be harmful to both human health and the environment, for example the use of heavy metals or aromatic amine residues.
- Chlorinated plastics such as PVC used in the cartridge parts or packaging, together with the use of brominated flame retardants in the casing
- Use of recycled materials, reuse and take-back systems
- Release of VOCs (volatile organic compounds) during use

The Nordic Swan background report on Toners²² notes that the greatest environmental problem with toner cartridges is resource consumption. As noted above, the energy which goes into the production of toner cartridges is significant. As such, the encouragement of reuse and recycling of toner cartridges is of most importance in reducing environmental impacts.

Currently two different approaches to reuse are common. Certain companies remanufacture cartridges for resale. Many manufacturers of cartridges also offer take-back services although these are then typically recycled rather than remanufactured. Such take-back services are likely to increase.

Comparing the environmental impacts of remanufacture rather than the purchase of original cartridges (with manufacturer take-back schemes) is not straightforward. Remanufactured cartridges, for example, may not offer as good quality as originals which may lead to early disposal. Depending on local waste policy remanufactured cartridges will also typically end up in landfill sites, rather than being returned to manufacturers for recycling²³

4. Key social considerations

4.1. Corporate social responsibility and the ILO conventions

Procuring responsibly requires a market that produces to responsible standards and clients who are willing to invest accordingly. The definition of such standards is pursued by actors both within and outside the sector and constitutes an indispensable reference point for SRP activities.

The basic reference point for workers' rights around the world are the Conventions of the International Labour Organisation (ILO). Founded in 1919, the ILO is a tripartite body bringing together governments, employers and workers and promotes decent work, employment rights, job-related security and better overall living standards. The ILO

²² Available on request from www.svanen.nu

²³ UK Market Transformation Programme: BNICT23: Waste considerations relating to printer cartridges: http://www.mtprog.com/ApprovedBriefingNotes/PDF/MTP_BNICT23_2007September20.pdf

Conventions are standards that define basic labour rights. Once adopted by the ILO and ratified by the signatory countries, Conventions are binding in nature.

For the office stationery industry the core ILO conventions should be binding over the whole supply chain. This includes suppliers of paper and other office supplies. The ILO core conventions are as follows:

Freedom of association

- Freedom of Association and Protection of the Right to Organise (No. 87)
- Right to Organise and Collective Bargaining (No. 98)

Forced Labour

- Forced Labour (No. 29)
- Abolition of Forced Labour (No. 105)

Equality

- Discrimination (Employment and Occupation) (No. 111)
- Equal Remuneration (No. 100)

Elimination of child labour

- Minimum Age (No. 138)
- Worst Forms of Child Labour (No. 182)

Labour standards are the rules that govern how people are treated in a working environment. They come in a variety of forms and originate at the local, national, and international levels. Taking account of the spirit of labour standards does not necessarily mean applying complex legal formulae to every situation; it can be as simple as ensuring that basic rules of good sense and good governance have been taken into account. More information is available at: <http://www.ilo.org/public/english/standards/norm/index.htm>.

4.2. The Global Compact

The United Nations Global Compact is a framework for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, the environment and anti-corruption. The principles include:

Human Rights

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- Principle 2: Make sure that they are not complicit in human rights abuses.

Labour Standards

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle 4: the elimination of all forms of forced and compulsory labour;
- Principle 5: the effective abolition of child labour; and
- Principle 6: the elimination of discrimination in respect of employment and occupation.

Environment

- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

The Global Compact is a purely voluntary initiative with two objectives:

- Mainstream the ten principles in business activities around the world;
- Catalyse actions in support of broader UN goals, such as the Millennium Development Goals (MDGs).

The United Nations currently encourages suppliers to sign up to the Global Compact and collects information on the proportion of goods and services procured where the supplier is a signatory. In 2007, 15,50% of suppliers were signatories (as a percentage of orders over 30,000 USD).

For more information, visit: <http://www.unglobalcompact.org>

4.3. OECD Guidelines for Multinational Enterprises

The Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises were adopted in 1976 as part of the Declaration on International Investment and Multinational Enterprises.

The Guidelines constitute a set of voluntary recommendations to multinational enterprises in all the major areas of business ethics, including employment and industrial relations, human rights, environment, information disclosure, combating bribery, consumer interests, science and technology, competition, and taxation. Adhering governments have committed to promote them among multinational enterprises operating in or from their territories.

The instrument's distinctive implementation mechanisms include the operations of National Contact Points (NCP), which are government offices charged with promoting the Guidelines and handling inquiries in the national context. Adhering countries comprise all 30 OECD member countries, and eleven non-member countries (Argentina, Brazil, Chile, Egypt, Estonia, Israel, Latvia, Lithuania, Peru, Romania and Slovenia).

Although many business codes of conduct are now publicly available, the Guidelines are the only multilaterally endorsed and comprehensive code that governments are committed to promoting. The Guidelines are voluntary, that is, non-binding, however, this does not imply less commitment by adhering governments to encourage their observance and implementation.

Several non-OECD members have already adhered to the Guidelines and others that are willing and able to meet the disciplines in the Declaration would be welcome.

For more information, visit: <http://www.oecd.org/>

4.4. Social Accountability 8000 Standard

Social Accountability International is an international non-profit human rights organisation that promotes the rights of workers through the voluntary Social Accountability 8000 Standard (SA 8000). The standard is based on international human rights norms and national labour laws and thereby includes the Core Conventions of the International Labour Organization (ILO).

It is an auditable international standard – comprising of nine accountability requirements - for a third-party verification system, setting out the voluntary requirements to be met by employers in the workplace, including workers' rights, workplace conditions, and management systems. To certify conformance with SA8000, every facility of a company seeking certification with SA8000 is audited. The certification provides a public report of good practice to consumers, buyers, and other companies and is intended to be a significant milestone in improving workplace conditions. Numerous industries are certified internationally, including furnishings, cleaning services, chemicals and metal products.

For more information visit: <http://www.sa-intl.org>

4.5. Upcoming ISO Social Responsibility Standard (ISO 26000)

The International Standards Organisation (ISO) is currently in the process of developing a

new standard – Standard 26000 on Social Responsibility – scheduled to be published in 2010.

The new standard is intended for use by organisations of all types (public and private sectors) in developed and developing countries and will serve to assist them in their efforts to operate in a socially responsible manner. ISO 26000 will contain guidelines, not requirements, and therefore will not be for use as a certification standard like ISO 9001:2000 and ISO 14001:2004. The new ISO standard will be consistent with the ILO Core Conventions.

For more information, visit: <http://iso.org/sr>

4.6. UN Supplier Code of Conduct

The UN also publishes a “UN supplier code of conduct informing its suppliers of the overarching values that the UN expects its suppliers to achieve”¹. This code covers the issues outlined in the ILO labour conventions, the Global Compact and the ILO Operational Health and Safety Guidelines.

4.7. UNON Fair Employment Package Policy

The United Nations Office at Nairobi (UNON) has developed a “Guaranteed Fair Employment Package” (or ‘Fair Pack’ policy) aimed at improving the working conditions of contractor’s employees working at the UNON Gigiri Complex in Nairobi. Compliance with the “Fair Pack Policy” can form part of the conditions of contract.

The policy states that contractors must provide a minimum wage, health insurance, maternity leave and assistance with transport amongst other work conditions. The policy is relevant for contracting services and can be used to ensure that contractor staff are fairly treated.

5. Legislation impacting the procurement of office stationery

Although UN procurement organisations are not always directly affected by the legislation it is important to be aware of it, as legislation may already sufficiently address some important environmental aspects, which need not therefore be addressed by procurers. For example, certain hazardous substances may be banned, or suppliers may be required to provide a take-back and disposal service.

Legislation may also, for example, require products to be labelled or indicate if they contain a certain amount of a hazardous substance. This may provide a useful information source for procurers to assess the environmental characteristics of products.

5.1. Forestry management

International Forest Principles

The Statement of Forest Principles is the informal name given to the "Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests," a document produced at the 1992 UNCED (Earth Summit). It is a non-legally binding document that makes several recommendations for forestry.

In 1995, both an Intergovernmental Panel on Forests (IPF) and an Intergovernmental Forum on Forests (IFF) were established under the UN Commission on Sustainable Development (UNCSD). In 2000, ECOSOC established the United Nations Forum on Forests (UNFF - <http://www.un.org/esa/forests/index.html>), to promote “... the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end...” based on the Rio Declaration, the Forest Principles, Chapter 11 of

Agenda 21

(<http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter11.htm>) and the outcome of the IPF/IFF Processes and other key forest policy milestones.

The full text of the Forest Principles can be downloaded by visiting:

<http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm>

Non-Legally Binding Instrument on All Types of Forests (NLBI)

Following intense negotiations, the Seventh Session of the UNFF adopted the landmark Non-Legally Binding Instrument on All Types of Forests on 28 April 2007. The instrument is considered a milestone, as it is the first time Member States of the UN have agreed to an international instrument for sustainable forest management. The instrument is expected to have a major impact on international cooperation and national action to reduce deforestation, prevent forest degradation, promote sustainable livelihoods and reduce poverty for all forest-dependent peoples. The NLBI was adopted by the UN General Assembly on 17 December 2007.

The full text of the NLBI can be downloaded by visiting:

<http://www.un.org/esa/forests/about.html>

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

CITES is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

Because the trade in wild animals and plants crosses borders between countries, the effort to regulate it requires international cooperation to safeguard certain species from over-exploitation.

Over 30,000 species of plants and animals are listed in the appendices to the Convention on International Trade in Endangered Species of Flora and Fauna (CITES). The wide variety of species poses a formidable challenge to the application of the Convention since it requires identification of the specimens subject to international trade.

For more information visit: <http://www.cites.org>

European Union

EU Forest Law Enforcement Governance and Trade (FLEGT)

Again, for **wood and wood-based products**, reference should be made to the FLEGT (Forest Law Enforcement Governance and Trade) action plan adopted by the EU in 2003. The Action Plan outlines a series of measures to address illegal logging both in the countries concerned and within the EU as a timber importer. The Plan has defined a timber licensing system to warrant the legality of imported wood products. In order to obtain the FLEGT licence, Voluntary Partnership Agreements (VPA) have to be signed between timber-producing countries and the EU. Timber products, which have been legally produced in VPA partner countries, will be licensed for the legality of production by a third party.

A series of VPAs are currently under negotiation between the EU and timber-producing and -exporting countries. The first of these is with Ghana and was agreed in September 2008. It is hoped that Cameroon and Malaysia will also conclude negotiations soon, possibly before the end of 2008²⁴.

In addition, wood treatment shall comply with the relevant provisions in Directive

²⁴ The negotiations with Indonesia appear to be making much slower progress, while the negotiations with Republic of Congo are just starting. Informal discussions are proceeding in many other countries; Liberia and Vietnam seem likely to be the next two countries to start negotiations on VPAs. Source: <http://www.illegal-logging.info>

79/117/EEC (and amendments) that prohibits the placing on the market and the use of plant protection products containing certain active substances which, even if applied in an approved manner, could give rise to harmful effects on human health or the environment.

For more information visit: <http://ec.europa.eu/environment/forests/flegt.htm>

North America

United States

The U.S. does not have a national procurement policy for wood but a number of progressive States have committed to purchasing only verified or, more often, certified wood and products. Certification is also recognised in national 'green' building standards.

The U.S. leads the world in legislation to make the import and sale of illegally produced timber illegal in its own jurisdiction, through the Lacey Act, which has recently been amended to include a wide range of commercial timber species. It has also increased its commitment to tackling the trade in illegal wood through bilateral agreements on the environment and trade with a number of Asian and Latin American countries.

For more information visit:

http://www.fs.fed.us/global/topic/illegal_logging/welcome.htm²⁵

Canada

Provincial governments in Canada legislate forest practices on provincially owned land and grant licences for forest management.

The Canadian Council of Forest Ministers (CCFM) is focused on making more effective and efficient linkages between federal and sub-national entities. They are charged with setting up and revising the Canadian National Forest Strategy, which has been in place since the 1980s, however is reviewed regularly (every few years). The current strategy is in place until 2008. The preceding strategy – 'Canada's Next Forest Strategy: A Vision for Canada's Forests – 2008 and Beyond' is currently in the finalisation phase.

For more information visit: http://nfsc.forest.ca/index_e.htm

Africa

African FLEG (AFLEG)

The Ministerial Conference on AFLEG was held in Yaoundé, Cameroon in October 2003. The meeting drew together ministers and stakeholders from Africa, Europe and North America to consider how partnerships between producers and consumers, donors, civil society and the private sector could potentially address illegal forest exploitation and associated trade in Africa.

The Conference was the second regional FLEG, following East Asia, and resulted in the endorsement of a Ministerial Declaration and Action Plan for AFLEG, as well as a broad range of informal implementation initiatives.

East Africa FLEG (EAFLEGT)²⁶

The first EAFLEGT event was held in Arusha, Tanzania in September 2006. The event identified trade in illegal timber where countries serves as recipient or transit points, illegal harvesting and trade in forest products at both national and trans-boundary levels, weak

²⁵ The relevant part of the United States Lacey Act regarding illegal timber is available from the Illegal Logging website at this link: <http://www.illegal-logging.info/uploads/FederalRegisterLacey.pdf>

²⁶ EAFLEGT sourced from an article on the 'Illegal Logging' website (<http://www.illegal-logging.info/index.php>) which was sourced from "Africa Science News Service": http://africasciencenews.org/asns/index.php?option=com_content&task=view&id=786&Itemid=1

national institutions and weak capacity as some of the challenges facing sustainable forest management in the region.

In Kenya, the national government put a draft forest policy in place in 2006 and a new Forests Act 2005 came into effect in February 2007.

Apparently, however, there is little implementation of forestry protection laws by East African countries.

Japan

The issue of legally logged timber in Japan has been addressed in national policies by the Japanese national government through the national policy on green public procurement. The Japanese green purchasing law has been in place since 2000. The revision of the law took place in February 2006 and also included the inclusion of legal timber. The policy is compulsory for national government ministries and agencies, courts and independent administrative institutions.

The Japanese Forest Agency published the “Guideline for the verification on the legality and sustainability of wood and wood products” on a national and international basis in February 2006, for use in confirming the legality of wood. The Agency has subsequently worked to develop a supply system based on the Guideline since April 2006.

Japan’s Green Purchasing Policy – Tackling Illegal Logging (March 2007) is available from: http://www.env.go.jp/en/earth/forest/pamph_jgpp.pdf

Latin America

Chile

The Corporación Nacional Forestal (CONAF), the Chilean national government’s forestry agency, is responsible for overseeing issues regarding illegal timber logging in Chile.

The Native Forest Recovery and Forestry Development Act (Ley del Bosque Nativo) was approved by the Chilean Parliament in 2008 after it was initially proposed to parliament in 1992.

For more information visit: <http://www.conaf.cl>

Panama

Panama is benefiting from a number of initiatives to combat deforestation. The US government signed a second agreement with Panama in 2004 to reduce Panamas debt and generate \$11 million for tropical forest conservation for the following 12 years. The Smithsonian Tropical Research Institute is working with an indigenous community to conserve forests and reforest degraded lands with native tree species through a carbon-offsetting scheme.

5.2. Chemicals and harmful substances

Hazardous chemical labelling systems

Many countries have a hazardous chemical labelling system which provides information to end users on the health and environmental impacts of the products they are using.

Several countries and regions have developed these systems independently meaning there are many different labelling requirements around the world. To align the requirements of these systems the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) was developed.

Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

The GHS is a non-legally binding international agreement established by the United Nations. The agreement provides international harmonised criteria for classifying substances and mixtures according to their health, environmental and physical hazards. It also provides harmonised hazard communication symbols and statements, including requirements for labelling and safety data sheets.

The labelling requirements of this scheme are:

- Symbol – A pictogram must be displayed depending on the specific hazard category or class the substance belongs to under the scheme.
- Signal word - means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in the GHS are “Danger” and “Warning”.
- Hazard statement - a phrase assigned to a hazard class and category that describes the nature of the hazards of a hazardous product (e.g. may be harmful if inhaled)
- A precautionary statement - a phrase (and/or pictogram) that describes recommended measures that should be taken to minimise or prevent adverse effects resulting from exposure to a hazardous product, or improper storage or handling of a hazardous product. (e.g. keep out of reach of children)
- Product identifier – this includes chemical identity of the substance, for mixtures the label should include the chemical identities of all the hazardous ingredients.
- Supplier identification – the name address and phone number of the supplier.

A safety data sheet (or Material Safety Data Sheet) must be provided. This document provides information on the hazards of the product and safe storage, handling and disposal techniques.

As of 2008 sixty-five countries are currently in the process of adopting legislation to implement this agreement. Once the GHS is in force in all countries common purchasing criteria that exclude certain categories of harmful substances will be able to be developed. The common labelling requirements will also make it easier for suppliers to demonstrate that their products meet the criteria.

Many of the UN offices are in countries where the GHS is being implemented. Therefore to ensure the procurement criteria is consistent across countries and relevant in the future the GHS categories and classifications have been used. Some countries have published comparisons between their current hazardous classification systems and the GHS.

European Union

The European Union is currently moving to adopt the GHS system. A transitional period during which both the current legislation and the new Regulation will be in place stipulates that the deadline for substance reclassification is 30 November 2010 and for mixtures 31 May 2015. The current Directives on classification, labelling and packaging, i.e. Council Directive 67/48/EEC and Directive 1999/45/EC, will be repealed on 1 June 2015.

The current labelling requirements are that the label must contain (amongst other information);

- The danger symbol
- “Risk phrase” (or R-Phrase) which indicates the precise nature of the risk (such as or R45: May cause cancer or R50: Very toxic to aquatic organisms),
- The “Safety phrase” (S-Phrase) which provides advice on safety practices relating to the substance (such as S17: Keep away from combustible material or S49: Keep only in the original container).

A comparison between the GHS system and the current European system is available at, http://ec.europa.eu/enterprise/reach/docs/ghs/ghs_comparison_classifications.pdf

North America - Canada

Canada is conducting consultation, economic analysis and drafting recommendations on the implementation of the GHS.

A comparison between the GHS system and the current Canadian system is available at, <http://www.hc-sc.gc.ca/ahc-asc/pubs/ghs-sgh/analys/index-eng.php>

North America - United States

In the United States the GHS is currently being compared and aligned with the current hazardous goods labelling system.

The current labelling requirements for hazardous substances are outlined in OSHA Hazard Communication Standard 29CFR1910.12001(HCS). A comparison between the two systems is available at <http://www.osha.gov/dsg/hazcom/GHSOSHAComparison.html>.

The US Environmental Protection Agency (EPA) provides a list of toxic/polluting substances on its website: <http://www.epa.gov/ebtpages/pollutants.html>

Latin America – Chile

The Ministry of Health in Chile is currently leading the implementation of the GHS along with a number of other departments.

Asia – Japan

Japan has made significant progress towards adopting the GHS. The Industrial Safety and Health Law has been amended in order to implement GHS labelling requirements and a national standard on labelling of chemicals based on the GHS has been published.

Further information and links to relevant documents are available on the GHS website http://www.unece.org/trans/danger/publi/ghs/implementation_e.html#Japan

Asia - Thailand

Thailand has also made significant progress on implementing the GHS. It is expected that the Hazardous Substance Committee's Notification on GHS will enter into force in 2008. There are proposed transitional periods: 1 year for substances and 3 years for mixtures and products (by 2011) controlled under the Hazardous Substance Act.

Further information and links to relevant documents are available on the GHS website http://www.unece.org/trans/danger/publi/ghs/implementation_e.html

According to the GHS website the GHS is not currently being implemented in Panama, Kenya, Ethiopia or Lebanon. However, due to the international nature of the product group, suppliers tend to follow the legislative requirements of Europe and North America. Therefore it is possible that labelling of hazardous substances may be occurring in these countries.

5.3. Other relevant legislation

European Union

Marketing and labelling chemical products

For *marketing and labelling* of chemical products there are several relevant pieces of legislation. Some substances and preparations are not considered dangerous and circulate freely on the European market without any particular rules. Others are classified as dangerous and can circulate freely only when packaged and labelled in accordance with Directive 67/548/EEC (for dangerous substances) or Directive 1999/45/EC (for dangerous preparations). In a relatively small number of cases the rules for classification, packaging and labelling are insufficient to reduce risks and are hence supplemented by rules to restrict

marketing and use under the Limitations Directive, i.e. Directive 76/769/EEC.

REACH Regulation (1907/2006)²⁷

The (new) Regulation provides a new regulatory framework for the collection of information on the properties of chemicals on the European market, and also for future restrictions on their use. The framework will provide not only a rigorous testing and restriction procedure for all chemicals on the European market, but also provide a highly valuable centralised information source which could be used by public purchasers. However, it will take some years before the system will be fully operational and comprehensive.

North America - United States

Formaldehyde emissions from pressed wood products

The U.S Environmental Protection Agency has initiated a proceeding (started in March 2008) to investigate whether and what type of regulatory or other action might be appropriate to protect against risks posed by formaldehyde emitted from pressed wood products. Through this process, the EPA will develop risk assessments on potential adverse health effects, evaluate the costs and benefits of possible control technologies and approaches, and determine whether EPA action is needed to address any identified risks.

For more updates visit: <http://www.epa.gov/opptintr/chemtest/formaldehyde/index.htm>

Consolidated List of Products

A useful source of information on banned products in different countries is the Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or not Approved by Governments. This list complements and consolidates other information on hazardous chemicals produced within the United Nations system, including the Prior Informed Consent (PIC) circulars issued by the secretariat, maintained jointly by the United Nations Environment Programme (UNEP) and the Food and Agriculture Organization of the United Nations (FAO), of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. The criteria excludes the use of any product on this list. In the current issue of the List, all the products covered under the Rotterdam Convention are marked by an asterisk (*) to highlight their special status.

More information available at: <http://apps.who.int/medicinedocs/en/d/Js4902e/1.html>

6. Sustainable procurement guidelines – sources and rationale

6.1. Environmental performance criteria sources

There are a large number of criteria sources related to office stationery products, particularly for paper (for copying and printing purposes) with a lesser amount of environmental labels covering printing consumables (e.g. notepads) and other office stationery, such as writing instruments (e.g. pens and pencils). Most procurers are not experts on sustainable development issues concerning products and services, and often sustainability officers have little direct experience (in general) with sustainable procurement. Environmental labels are therefore useful tools for bridging this competency gap.

There are a wide variety of labels available and also several classification schemes for labels, namely, Type I, II and III, as defined by the International Standards Organisation (ISO). In brief, labels classified as **Type I** labels are the most useful group for procurers.

²⁷ REACH in Brief: http://ec.europa.eu/environment/chemicals/reach/pdf/2007_02_reach_in_brief.pdf

These labels are based on life-cycle environmental impacts and the criteria are set by an independent body and monitored through a certification or auditing process. Transparency and credibility is thus ensured by third-party certification. A number of Type I and “Type I like” labels are presented in the below subsection for office stationery products.

For more information on environmental labels and the use of environmental labels in the UN procurement process, please consult: “A Guide to Environmental Labels for procurement Practitioners of the United Nations system” published by UNOPS and UNEP (as part of the HLCCM/SUN sustainable procurement initiative) (July 2009).

For more information regarding ecolabels available globally, please consult the website of the Global Ecolabelling Network (GEN): <http://www.globalecolabelling.net>

Environmental labels for office stationery

A number of labels for office stationery exist in the different regions, although none could be identified in East Africa or the Middle East. The following table displays the labels identified.

Name & website	Region	Number of products/companies labelled
Type I labels		
European Ecolabel (Flower) http://ec.europa.eu/environment/ecolabel/index_en.htm	Europe	Copying and graphic paper: 121 companies certified
Nordic Swan http://www.svanen.nu	Europe (mainly Scandinavia)	Copy and printing paper: 7 companies certified. Paper envelopes: 5 companies certified. Toner cartridges: 13 companies certified. Writing instruments: 3 companies certified
Austrian Ecolabel (Umweltzeichen) http://www.umweltzeichen.at	Austria	Need to check (info in German)
Blaue Engel http://www.blauer-engel.de	Europe (Germany)	Paper: 66 companies selling certified recycled paper (RAL-UZ 14) which includes over 170 different brands, products and services. Envelopes: 28 companies selling certified recycled envelopes (RAL-UZ 14). Reprocessed toner cartridges: 13 companies certified (RAL-UZ 55, ed Feb 2007).
NF Environnement http://www.marque-nf.com/	Europe (France)	Not known
Thai Green Label http://www.tei.or.th/greenlabel	Thailand	Writing instruments: 2 companies certified. Toner cartridges: 1 company certified
Ecologo http://www.ecologo.org	North America	Paper:
Green Seal (GS-7 for printing and writing paper) http://www.greenseal.org	U.S.	8 companies labelled supplying paper and envelopes.
EcoMark http://www.ecomark.jp/	Japan	Not known

english		
“Type I like” labels		
Forest Stewardship Council (FSC) http://www.fsc.org	International (wood fibres)	690 companies with labelled products for paper worldwide
Programme for the Endorsement of Forest Certification (PEFC) http://www.pefc.org	International (wood fibres)	29 companies with labelled products for paper worldwide
Sustainable Forestry Initiative (SFI) – PEFC label accredited http://www.sfiprogram.org	North America (wood fibres)	71 companies with labelled products for paper from North America
Certfor (PEFC label accredited) http://www.certfor.cl	Chile (Latin America)	Certified paper products expected to be available on the Chilean market from 2009.
Cerflor Forest Certification Programme Brazil (PEFC label accredited) http://www.inmetro.gov.br/qualidade/cerflor.asp	Brazil (Latin America)	Not known

6.2. Other guidance on office stationery – from the United Nations

Guidance on the sustainable procurement of office stationery has been developed by some of the divisions in the UN are recommended for consideration. These are:

- “UNDP Environmental Procurement Practice Guide” (<http://www.undp.org/procurement>) and “Volume 2, Environmental Specifications” – The guide is designed to enable UNDP procurement practitioners to gain an overview of sustainable procurement and how to take the first steps to implement environmental consideration within UNDP’s procurement process. The Guide also provides recommendations specific for purchasing paper, printed paper and cardboard.
- UNON Supplier Sustainable Procurement Guidelines (Annex G) – The sustainable procurement guidelines form part of the contractual conditions in all contracts signed between UNON and companies providing goods and services, as part of the overall UNON effort towards sustainable procurement. The social aspect (issues such as poverty eradication, equity in the distribution of resources, labor conditions and human rights) is described separately in the “Fair Pack”. Factors considered in sustainable procurement are environmental impacts and the whole life-cycle of the products. Before any contract is awarded, the contractors will be required to submit evidence of compliance with the “UNON supplier sustainable procurement guidelines”.

6.3. Other guidance on office stationery

A number of other sources provide useful guidance on office stationery:

- European Commission GPP Training Toolkit. (http://ec.europa.eu/environment/gpp/toolkit_en.htm) – This provides public purchasing criteria for both copying and graphic paper, together with background information on the reasons for the development of the criteria. It has been used as the starting point for

these guidelines

- City of Santa Monica (U.S.A) Green Office Buying Guide – Provide guidance on purchasing copying and printing paper. Regarding paper, it is specifically recommended to set the minimum standard at: 30% post-consumer recycled content (U.S. Federal standard) and is the most widely available recycled content paper on the market. However, 100% post consumer recycled content (processed chlorine free) whenever possible is preferred. Website includes tips on paper reduction strategies and also provides links to other useful websites that offer technical information and calculators to compare different recycled content percentages. For more information visit: <http://www.smgov.net/epd/SP/greenoffice/office/copy-paper.html>
- Swedish Environmental Management (MSR) Council's procurement criteria for “paper products” (http://www.msr.se/en/green_procurement/criteria/Office/Paper-products/)
- A+ Sustainability from the City of Barcelona (Spain). <http://www.bcn.cat/agenda21/ajuntamentsostenible>
- EcoBuy (Australia) Guide to Green Purchasing (restricted access for members only – <http://www.ecobuy.org.au>) – Provides concrete advice principally on different products including recommendations for purchasing paper and cardboard.
- Resort Municipality Whistler (Canada) Sustainable Purchasing Guide – Provides recommendations for purchasing sustainably produced writing instruments and printing inks. For more information visit: <http://www.whistler2020.ca/whistler/site/productAssessment.acds?context=2065129>
- Paper calculator from the Environmental Defense Fund (North America) – This tool can be used to help purchasing decision-makers quantify the benefits of environmentally friendly paper choices. The Paper Calculator shows the environmental impacts of different papers across their full life-cycle. The calculator is available from: <http://www.edf.org/papercalculator/>
- Stop Waste - The Alameda County Waste Management Authority and the Alameda County Source Reduction and Recycling Board (U.S.) have practical online information for all kinds of environmentally friendly purchasing of office and stationery supplies, e.g. paper, toner cartridges, pens and markets. For more information visit: <http://www.stopwaste.org>

7. Implementing the sustainable procurement guidelines

7.1. Verification of office stationery requirements

In several world regions, many paper companies have sought to reduce their environmental impacts by establishing environmental management systems in their factories and certifying their products with one or several ecolabels. This is particularly the case in Europe, North America and Japan. The market availability of certified paper based (totally or mainly) on virgin fibre and on recovered paper varies between countries but in countries where ecolabelled certified paper exists, both types of paper tend to be found at competitive prices²⁸.

Ecolabel criteria normally comprise, on the one hand, of product specific criteria and, on the other hand, the assessment or verification methods aimed at checking compliance with these criteria. Where procurement criteria are based on ecolabels, the easiest way to prove compliance will be through the possession of the relevant ecolabel. However, even if the

²⁸ See a study on the different prices of paper based (totally or mainly) on post-consume recovered paper fibres (recycled paper) in several Member States http://www.iclei-europe.org/fileadmin/user_upload/Procurement/LEAP2/Local_market_research_final_report.pdf.pdf

product is not ecolabelled, the procurement/contracting authority must allow verification to be done via other means of proof, and this must be made explicit in the tender documents. Bidders must therefore be given the opportunity to present other means of proof (that the product meets the specifications), such as declarations by the producer or by the supplier, technical and/or product safety sheets; calculation formulas, laboratory tests results, etc.

7.2. Using a life-cycle costing approach

According to the EU study “Costs and Benefits of Green Public Procurement in Europe”²⁹, if only procurement prices are taken into account the purchasing costs of green (including 100% recycled and eco-certified copying paper) and non-green copying paper are very similar. Out of the four countries subject of the study, in Germany, ‘green’ versions of copying paper are significantly cheaper (23%) than non-green copying paper. In Spain and Sweden ‘green’ copying paper is slightly more expensive with a relative price difference of 3.5 to 4%. In the Czech Republic the average prices are nearly the same (0.2% difference). In the U.S, the results of a survey conducted by the Centre for a New American Dream of American state purchasing agencies, found that the average price for copy paper with 30% post-consumer waste was 8% higher (USD 25/case) than virgin paper (USD 23/case), and the average price paid for 100% post-consumer waste paper (USD 32/case) was 36% higher³⁰.

Furthermore, cost differences (between recycled paper and paper from virgin fibres) have been found to be primarily the result of a difference in the economies of scale achieved from the production of the two paper sorts. The latter combined with imbalances caused by “newly capitalised and still-developing recycling systems versus a well-established and industrially integrated tree-pulping production system”, as well as government subsidies for timber production also add to the different prices³¹.

Some recommended tools for calculating the life-cycle cost of office stationery products:

- MSR (Swedish Environmental Council) General LCC Tool - has produced a general LCC tool for use in both needs analysis and tender assessment. For more information or to download the LCC tool (as an excel file) visit: http://www.msr.se/en/green_procurement/LCC/

Other tools that can be used to inform sustainable procurement decisions:

- New York City remanufactured toner cartridges measurement tool – The tool calculates the waste prevention benefits associated with establishing a toner-cartridge recycling programme (for laser printers only). For more information visit: http://www.nyc.gov/html/nycwasteless/html/at_agencies/measurement_tools_toner.s.html

7.3. Further aspects for consideration

- Purchasing green office equipment, for instance, multi-functional devices, printers that allow for double-sided printing to reduce paper consumption (training for staff also).

²⁹ Study on costs/benefits of Green public procurement in Europe, Öko-Institut & ICLEI 2007, available at: http://ec.europa.eu/environment/gpp/index_en.htm

³⁰ Snavelly, MJ (2008): “Responsible Purchasing Guide – Copy Paper”. Responsible Purchasing Network.

³¹ Kinsella, Susan (200): “Buy Recycled - Recycled Paper”, Recycled Paper Coalition, published by the Buy Recycled Business Alliance of the National Recycling Coalition. Download from: <http://www.conservatree.com/paper/PaperTypes/RPCrecypprFactSheet.pdf>

- Adopting new approaches which reduce the amount of paper consumed, e.g. sending e-christmas cards, reducing the amount of paper filing, reusing notebooks (for internal working purposes).
- Transferring the approach to purchasing office stationery to other activities, such as, in the organisation of events.
- Publications: Work with graphic designers so that designs take into account the use of recycled paper for publications purposes.
- Reuse single sided printed paper: This type of paper is good for internal reuse, for instance, in the form of notepads. This practice is already in place in some public administrations, such as the City of Barcelona (Spain), visit: <http://www.bcn.cat/agenda21/ajuntamentsostenible/english/documents/paper.pdf>
- Buying office stationery (e.g. paper) in larger quantities and planning ahead further reduces or eliminates price premiums on recycled paper. This approach also stimulates the sustainable products market, for example, regarding recycled paper.

8. Information sources

Ecolabels and other criteria sources

- Austrian ecolabel: <http://www.umweltzeichen.at/>
- Blauer Engel: <http://www.blauer-engel.de>
- Deni Green Consulting Services (2004). Eco-Buy Guide to Green Purchasing. ECO-Buy, Melbourne, Australia.
- Ecolabelling.org: <http://www.ecolabelling.org>
- Ecologo: <http://www.ecologo.org/>.
- Eco Mark Japan (Japanese national ecolabel): <http://www.ecomark.jp/english/>
- European Ecolabel: <http://ec.europa.eu/environment/ecolabel/>
- European Commission GPP Training Toolkit: http://ec.europa.eu/environment/gpp/toolkit_en.htm
- Forest Stewardship Council (FSC): <http://www.fsc.org>
- Green Seal: <http://www.green seal.org>
- NF Environnement Mark: <http://www.marque-nf.com>
- Nordic Swan: <http://www.svanen.nu>
- Programme for the Endorsement of Forest Certification (PEFC): <http://www.pefc.org>
- Resort Municipality of Whistler (2006) Sustainable Purchasing Guide. Moving Towards Sustainable Procurement. Whistler, Canada.
- Swedish Environmental Management (MSR) Council's procurement criteria for "paper products": http://www.msr.se/en/green_procurement/criteria/Office/Paper-products/
- Thai Green Label: <http://www.tei.or.th/greenlabel/>

Legislation

- Directive 2004/17/EC of the European Parliament and the Council of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors
- European Commission Environment Directorate Council, (October 2007), REACH in Brief available at http://ec.europa.eu/environment/chemicals/reach/pdf/2007_02_reach_in_brief.pdf
- Globally Harmonised System of Classification and Labelling of Chemicals (GHS): http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html

Studies and other information

- Central Point of Expertise on Timber Procurement: <http://www.proforest.net>
- City of Santa Monica (U.S.A) Green Office Buying Guide: <http://www.smgov.net/epd/SP/greenoffice/office/copy-paper.html>
- Clement, S (2006): The Procura⁺ Manual 2nd edition: A guide to cost effective Sustainable Public Procurement. ICLEI – Local Governments for Sustainability, Freiburg, Germany.
- Conservatree: <http://www.conservatree.com>
- Environmental Paper Network: <http://www.environmentalpaper.org/>

- ICLEI - Local Governments for Sustainability & Ecoinstitut Barcelona: European Commission Green Public Procurement (GPP) Training Toolkit – Module 3: Purchasing Recommendations. Copying and Graphic Paper. Background Product Report. (2008), Brussels, Belgium.
- European Toner and Inkjet Remanufacturers Association: <http://www.etira.org/>
- Illegal logging: <http://www.illegal-logging.info>
- Kinsella, Susan (2000): Buy Recycled - Recycled Paper, Recycled Paper Coalition, published by the Buy Recycled Business Alliance of the National Recycling Coalition (<http://www.conservatree.com/paper/PaperTypes/RPCrecypprFactSheet.pdf>)
- Kittel, M. and Page, K (2008): Responsible Purchasing Guide – Toner Cartridges. Peters, M and Puchir, K; Responsible Purchasing Network. Centre for a New American Dream.
- Öko-Institut & ICLEI (2007): Study on costs/benefits of Green public procurement in Europe, available at http://ec.europa.eu/environment/gpp/index_en.htm
- Snavey, MJ (2008): Responsible Purchasing Guide – Copy Paper. Responsible Purchasing Network. Centre for a New American Dream.
- Swedish Environmental Management (MSR) Council: <http://www.msr.se>
- UNDP Practice Series. Environmental Procurement Practice Guide. Volumes 1 and 2. UNDP Bureau of Management, Procurement Support Office (2008): <http://www.undp.org/procurement>
- UNON Supplier Sustainable Procurement Guidelines (Annex G)
- UNOPS and UNEP (2009): “A Guide to Environmental Labels for procurement Practitioners of the United Nations system”.
- United Nations (2004): Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or not Approved by Governments. United Nations Publications.
- UNEP Division of Environmental Law & Conventions. Link to chemicals and wastes: http://www.unep.org/DEC/links/chemicals_wastes.html
- US Environmental Protection Authority: <http://www.epa.gov>