



# Sustainable Procurement Guidelines for Office Furniture

## Background Report

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

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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.

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## **Introduction to this document**

This part of the Sustainable Procurement Guidelines for Office Furniture is aimed at readers that want to know the arguments and information behind the described sustainability criteria listed in the accompanying Product Sheets (Basic and Advanced).

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## **Acronyms**

CFC	Chlorofluorocarbon
CoC	Chain of custody
FLEGT	Forest Law Enforcement Governance and Trade
HCFC	Hydrochlorofluorocarbon
PUR	Polyurethane
VOC	Volatile organic compound
VPA	Voluntary Partnership Agreement

## 1. Introduction

This background report, together with the practical product sheet, constitutes the sustainable procurement guidelines for office furniture for the UN system. 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”, “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

Furniture is a broad product group that encompasses very different types of furniture (chairs, tables, wardrobes, shelves, cupboards, etc.) with very different uses (for schools, offices, kitchens, bathrooms, outdoors, special uses, etc.). It includes all free-standing or built-in furniture units, which are used for storing, hanging, lying, sitting, working and eating. It does not include, however, building products (e.g. steps, walls, mouldings, panels), sanitary equipment, carpets, fabrics, office supplies, and other products whose primary purpose is not to function as furniture.

These guidelines focus on the materials that tend to have generally the most weight in office furniture: wood, metals and plastics plus finishing (e.g. coatings). In this respect, these guidelines do not provide guidance on a product basis but are rather intended to be used as generic guidelines for all office furniture and are thus based on the materials used in the production phase and the usability of finished office furniture products.

## 2. Incorporating Sustainability into the UN Procurement Process

### 2.1. Relevant UN procurement procedures

This section aims to give an overview of relevant UN procurement procedures which should be considered when including sustainability criteria in 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 services for specific UN agencies. This includes the following member organs of the UN and specialized agencies.

**Agencies participating in the UNGM**

<ul style="list-style-type: none"> <li>▪ Food and Agriculture Organization of the United Nations (FAO)</li> <li>▪ International Atomic Energy Agency (IAEA)</li> <li>▪ The International Fund for Agricultural Development (IFAD)</li> <li>▪ International Labour Organization (ILO)</li> <li>▪ International Trade Centre UNCTAD/WTO (ITC)</li> <li>▪ International Telecommunication Union (ITU)</li> <li>▪ Organisation for the Prohibition of Chemical Weapons (OPCW)</li> <li>▪ United Nations Development Programme (UNDP)</li> <li>▪ United Nations Educational, Scientific and Cultural Organization (UNESCO)</li> <li>▪ United Nations Population Fund (UNFPA)</li> <li>▪ United Nations High Commissioner for Refugees (UNHCR)</li> </ul>	<ul style="list-style-type: none"> <li>▪ United Nations Children's Fund (UNICEF)</li> <li>▪ United Nations Industrial Development Organization (UNIDO)</li> <li>▪ United Nations Office for Project Services (UNOPS)</li> <li>▪ United Nations Procurement Division (UN/PD)</li> <li>▪ United Nations Office at Vienna (UNOV)</li> <li>▪ United Nations Office at Geneva (UNOG)</li> <li>▪ United Nations Economic Commission for Africa (UNECA)</li> <li>▪ United Nations Relief and Works Agency (UNRWA)</li> <li>▪ World Food Programme (WFP)</li> <li>▪ World Health Organisation (WHO)</li> <li>▪ Pan American Health Organisation (PAHO)</li> <li>▪ World Intellectual Property Organization (WIPO)</li> <li>▪ World Meteorological Organization (WMO)</li> </ul>
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The normal procurement procedures followed by the UN system are as follows (with minor variations among the 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 short list of suppliers to respond, through sealed bids. The shortlist consists of suppliers from developing countries, including the recipient country; under-utilized donor countries and other donor countries. The order is awarded to the most qualified and responsive contractor submitting the lowest bid.

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

International competitive bidding is the preferred mode of conducting a competitive tender process rule. If exigencies of a project so allow, suppliers are invited to bid by advertisement (see [www.ungm.org](http://www.ungm.org) and [www.devbusiness.com](http://www.devbusiness.com)) or 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 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 means an integrated assessment of technical, organisational and pricing factors and can also include social and environmental aspects.

Depending on the value of the contract and the procurement procedure used, typical procurement documents will have a number of sections where sustainability can be incorporated. These are described below.

**Procurement planning – subject matter**

The subject matter of the contract defines what will be purchased. 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 sections of the tender need to maintain a clear link to the subject matter of the contract, clear and explicit wording of the subject matter is a strong way

to ensure sustainable purchasing.

### **Requirement definition – specifications**

These provide detailed information on the functionality, quality and specific characteristics of the product to be purchased. They provide the opportunity to set minimum environmental and/or social requirements which all bidders must meet.

### **Sourcing – selecting environmental and socially-responsible suppliers and manufacturers**

These assess the technical and professional qualifications of vendors to produce and/or supply the requested products. If sustainability requirements are part of the subject matter or the technical specifications, selection criteria can be inserted that assess the sustainability performance of bidders. They can assess the bidding company's (and subcontractors) operations as a whole rather than only the products purchased under the specific contract. They can address the availability of information on products, existing 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 system**

These are the criteria used to evaluate and compare the different offers which meet the minimum specifications.

In sustainable procurement, it is essential to indicate that the contract will be awarded to the offer that gives “best value for money” – the term used if criteria other than just the price will be assessed when comparing offers. The evaluation criteria will then be used to evaluate the performance of an offer both in terms of price and other criteria.

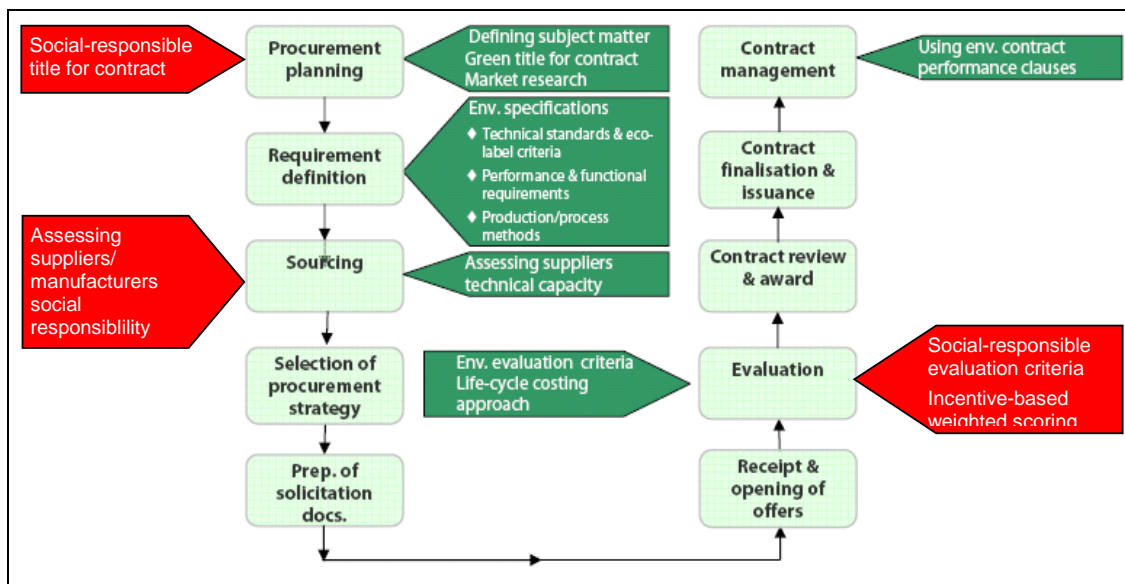
Tender documents must clearly set out the different evaluation criteria that will be used to evaluate bids (such as price, technical quality, environmental quality, social performance, etc.) as well as their relative weighting. In sustainable procurement, evaluation criteria can be used to encourage higher levels of sustainability performance than those demanded in the specifications, but without risking significant cost increases. Sustainability evaluation criteria should, altogether, account for at least 10 to 15 percent of the total points available. An example evaluation matrix is provided in the annexes of the “Product Sheet - Sustainable Procurement Guidelines for Office Furniture” which accompany this document.

### **Contract review and award – contract 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 specifications<sup>1</sup>. 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”<sup>2</sup>. 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 furniture. 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)<sup>3</sup>. 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”,
- 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

<sup>1</sup> 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](http://un.org/Depts/ptd/pdf/pm_english_08.pdf)

<sup>2</sup> Background Paper on Sustainable Procurement and Environmental Management Programmes for the UN, [http://www.unemg.org/download\\_pdf/EMG11/SustProcurement.pdf](http://www.unemg.org/download_pdf/EMG11/SustProcurement.pdf)

<sup>3</sup> 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>

“business as usual” within your office.

### 3. Key environmental impacts

In order to identify the environmental impacts of this product group it is necessary to consider the life-cycle impacts of the materials furniture is made of and the impacts of the final product during its life span and disposal.

Figure 2 below illustrates the share of materials used in furniture production (by value) in Europe according to the European Furniture Manufacturers Federation<sup>4</sup>.

As the graph illustrates, a piece of furniture can be made out of a large variety of materials. It may therefore be difficult for manufacturers to comply with environmental requirements for all materials used. As such it is often recommended that guidance for this products sector address those materials with a large share (by weight) in the final furniture product.

According to the Swedish furniture industry the average Swedish furniture product consists of 70w%<sup>5</sup> wood (-based material), 15w% padding materials (mainly polyurethane and polyester foam), 10w% metals and 5w% other materials (plastics, textiles, glass, etc.)<sup>6</sup>.

Combining this with the share by value, the focus would be on the environmental aspects of the main materials (including surface treatment and adhesives) that are typically used most in furniture: wood and wood-based panels; metals; plastics; textiles and foam materials.

The furniture industry is also a significant consumer of raw materials, and hence the length of life of a furniture product, which can vary considerably, plays a major role in the overall environmental impact.

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<sup>4</sup> <http://www.ueanet.com>

<sup>5</sup> w% is the share by weight of a certain material in a piece of furniture.

<sup>6</sup> Draft report ecolabel chairs, Tebodin, June 1993 in *The feasibility of an EU eco-label for furniture* Final Report. 2001.

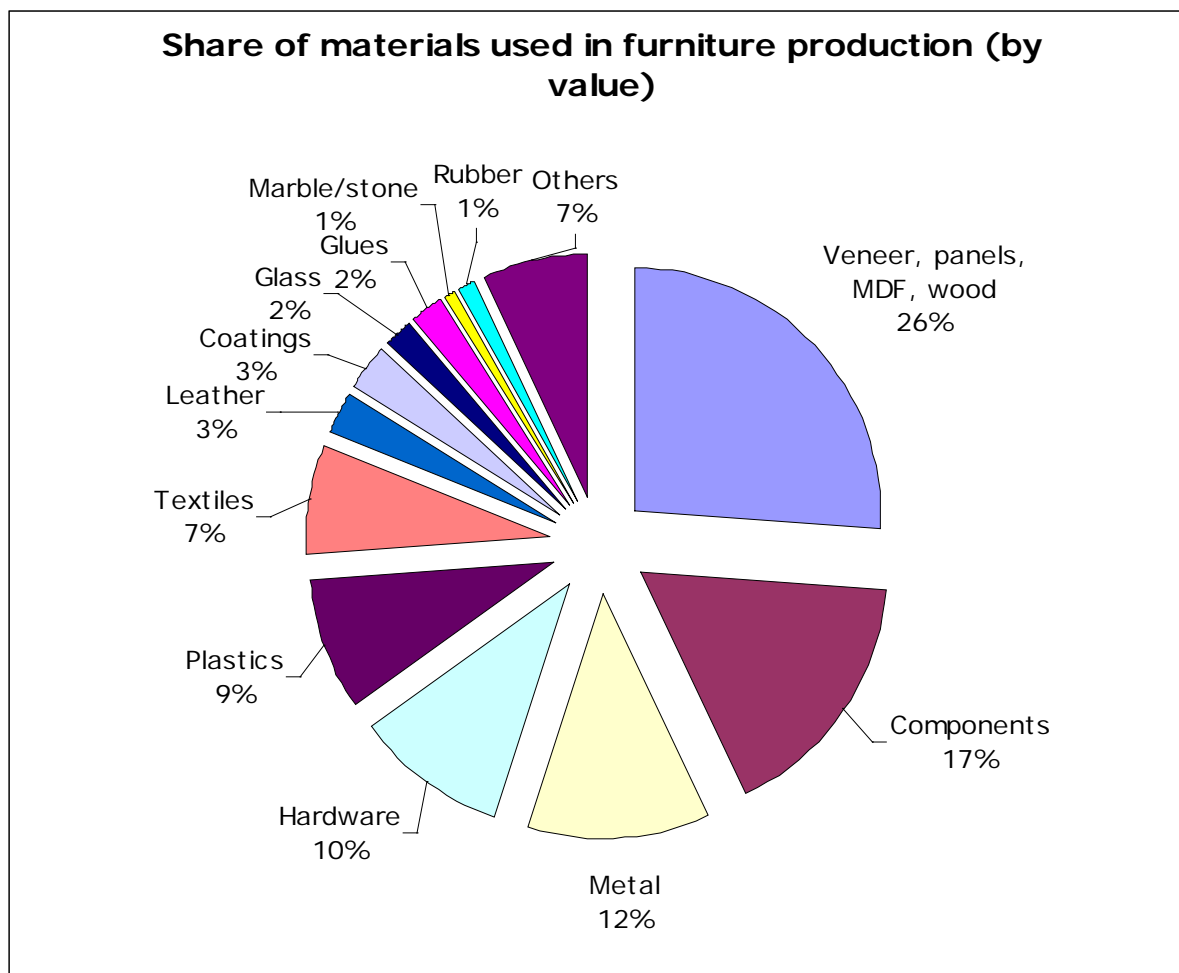


Figure 2: Share of materials used in furniture production (by value)

### 3.1. Potential environmental impacts of materials used in office furniture

In general, the environmental impact of furniture stems mostly from the production and treatment of the raw materials used in the manufacture, rather than from the production of the furniture itself. Therefore the focus will be on the environmental aspects of the main materials that are being used in furniture and their finishing treatments (such as lacquering or gluing).

#### **Wood and wood-based products:**

After the construction sector, the furniture and the paper industries are the main consumers of wood. The key environmental aspects of solid wood are mainly related to the legal and sustainable character of the originating forest management.

As the majority of wood used in furniture is treated, attention must be paid to the surface treatment of wood. In addition to solid wood, wood-based products (such as panels) are also widely used in furniture. Panels are used in many types of furniture, such as cupboards, tables and desks. The three main categories of wooden panels are fibreboard, particleboard and plywood. They are essentially produced under heat and pressure with the addition of an adhesive to glue fibres, particles or sheets of wood respectively. The environmental and health impacts of these products are linked to forestry practices and the substances used as glues and finishings (such as formaldehyde resins, melamine, epoxy, polyurethane resins, ethylene vinyl acetate, etc.).

Taking both wood and wood-based products into account, criteria should be defined to reduce their environmental impact in relation to:

- Origin of timber – management of the originating forest
- Use of hazardous substances in the production process
- Formaldehyde emissions

Finally, it is also important to highlight that timber is a renewable resource in comparison to other materials such as metal or plastic. As such, its use in furniture should be promoted.

### **Metals:**

The most relevant types of metals for the production of furniture are aluminium, steel (mainly stainless steel<sup>7</sup>) and iron (especially in outdoor furniture).

The most significant impacts related to metal production are:

- Influence on landscape, metal contamination in local water sources and emissions of dust and noise during mining processes to obtain bauxite (for aluminium) and iron ore.
- Energy consumption (from sources such as coal, natural gas, nuclear power or hydroelectric power), the release of heavy metals mostly through wastewater and emissions of fluorine, dust, nitrogen oxide, sulphur oxide, etc. during metal manufacturing in metallurgic factories to produce primary aluminium, iron and steel.
- Emissions of heavy metals and other compounds when metal undergoes surface treatment (galvanisation, painting, lacquer, enamelling) in order to extend the durability and the aesthetic value, except for stainless steel which does not need surface coatings<sup>8</sup>.

Furthermore metals are not renewable. Therefore, in general terms, in order to reduce the environmental impacts of metals, the most straightforward criteria would be to reduce the amount of metals used in favour of wood (-based) materials.

Increasing the share of recycled materials in metal also considerably reduces the energy needed to produce steel and aluminium.

Therefore the use of secondary (recycled) metals should be encouraged when procuring furniture.

In order to facilitate recycling, it is important to ensure that the metal parts of furniture can easily be removed for their selective collection for recycling.

### **Plastics:**

This constitutes a large range of products produced from natural gas or oil. Some of the impacts related to plastic production are:

- The use of non-renewable resources
- The use of additives such as stabilisers, plasticisers or flame retardants with (suspected) environmental and/or health related hazardous properties
- The release of hazardous substances during production and the handling of waste

Like metals, plastics can also be recycled but it is important that plastic parts can be easily removed from the furniture and their type identified.

Therefore, the environmental criteria for plastics should focus on the limitation of certain additives in plastic production and the marking of plastic parts for their easy disassembly for recycling.

As with metal, the use of recycled plastic should be encouraged, to reduce production-related impacts, as well as the use of renewable resources.

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<sup>7</sup> EU Ecolabel for furniture. Second Interim report. Analysis of key environmental, health, safety and performance issues and drafting of the criteria. Annex A: Assessment on a material level. 2002.

<sup>8</sup> EU Ecolabel for furniture. Second Interim report. Analysis of key environmental, health, safety and performance issues and drafting of the criteria. Annex A: Assessment on a material level. 2002.

### **Textiles and leather:**

The main environmental impacts and health related issues are associated with:

- Use of pesticides (in case of natural fibres) during the cultivation phase
- VOC (volatile organic compound) emissions to air (in the case of plastic fibres) during the production phase
- Emissions of dyes, pigments, fungicides, chromium compounds, etc. to water during the treatment of fibres and tanning of skin fibres to produce leather
- Presence of hazardous substances in the product

In order to reduce these negative effects certain substances such as formaldehyde, heavy metals, azo dyes, etc. should be banned or limited in fabric processing and manufacturing and in the final product.

### **Padding materials:**

Padding materials are mainly polyurethane foams (PUR-foams) and latex foams<sup>9</sup> used in upholstered furniture as a filling material for seats, backs of chairs, sofas and arm rests.

The most important aspects, which can be tackled in setting criteria for padding materials, are:

- Use of hazardous substances in the production process
- Presence of hazardous residues in the foams
- Durability of the final product
- Use of raw materials

### **Surface coatings:**

Coating systems are usually used for the protection (e.g. wood preservation, anti-corrosion, heat resistance) and the design/decoration (colour, gloss, transparency) of the surfaces of products. Coating systems/methods include staining, laminates, clear varnishes, lacquers, foils, decorative papers, adhesives, etc., but also the galvanisation of steel.

The key environmental and health related aspects associated with surface treatment are:

- Emissions of VOCs and hazardous substances used in coatings (especially heavy metals)
- Spillage of liquid and powder coatings due to over-spraying
- Emissions as a result of the galvanisation of certain metals

In order to reduce such negative aspects, when defining criteria for surface treatments and coatings, the following aspects should be considered:

- Limitation of VOCs and certain aromatic solvents in the content of surface treatment agents
- Banning the use of surface treatment agents with certain health and environment risk classifications and hazardous substances (incl. heavy metals, certain phthalates and halogenated organic flame retardants)
- Restricting the gloss of the product (coating)
- Banning coating of certain metals and their compounds

### **Glues and adhesives:**

Furniture assembly is the actual production of a furniture item, that is, the assembly of the supplies and/or furniture parts in order to produce the final product. Other activities that can

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<sup>9</sup> EU Eco-label for furniture. Second Interim report. Analysis of key environmental, health, safety and performance issues and drafting of the criteria. Annex A: Assessment on a material level. 2002.

form part of the furniture assembly process may include the surface treatment of furniture parts, described above.

In assembly, the main environmental impact relates to the use of glues and adhesives. The main issue associated with the use of adhesives is related to the solvent content of glue and the consequent emissions of VOCs, although other hazardous substances may also be present in certain glues.

Therefore, in order to minimise the negative environmental impacts of certain glues, criteria shall be set to limit the content of VOCs in adhesives and the content of hazardous additives.

### **Packaging:**

The amount of packaging used for furniture (for delivery purposes) is generally considerable in order to prevent damages during delivery. The reduction of the amount of packaging used for this purpose could be considered, however it would be difficult to evaluate this through a tender process without appropriate reference standards. Therefore criteria for packaging should concentrate on the recyclability, separability and the content of recycled material used.

## **3.2. Use and disposal of furniture**

All the issues described previously relate to the direct impacts of furniture manufacture (from the obtaining and processing of raw materials to their treatment to produce furniture pieces and through to the assembly of furniture). The amount and composition of waste originating from furniture depend on the following:

- 1) Life-span: A product that can be used for a longer period of time will need to be replaced less often, which has an overall positive effect on the environment: less usage of raw materials, less pollution related to production, and less waste. This is especially the case for products such as furniture where the environmental impacts are only to a limited extent related to use but mainly arise from the production and disposal phases. For this reason, criteria should also be formulated regarding durability, reparability, maintenance, fitness for use, ergonomics and safety aspects - all of which will prolong the life span of furniture.
- 2) 'Fitness for use' and 'ergonomics': Refers to whether a product fulfils the expectations with respect to its function and contributes to a healthy working environment for the user. A product that is not fit for purpose or not comfortable for the user will be replaced sooner. The same applies to safety standards.

Durability, fitness for use, ergonomics and safety depend on quality standards.

- 3) Ease of disassembly: will facilitate the reuse or recycling of furniture parts and thus reduce the amount of waste to be incinerated or land filled. Ease of disassembly can be achieved by avoiding that different materials are connected by techniques such as gluing or welding.

- 4) Possibility of take-back:

A take-back system could potentially be an effective way to guarantee the recycling of products. However it may not be very practical to require the set up of a take-back system for all types of furniture. Its effectiveness would additionally depend on the recycling options available to suppliers regionally. For this reason it is suggested to only impose criteria with respect to recyclability, but not to require the set up of a take-back system.

## 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 socially responsible procurement (SRP) activities.

The basic reference point for workers' rights around the world are the Conventions of the International Labour Organization (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 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 furniture industry the core ILO conventions should be binding over the whole supply chain – that is, production, manufacture and disposal of furniture items. The ILO core conventions are as follows:

#### Freedom of association

- Freedom of Association and Protection of the Right to Organize (No. 87)
- Right to Organize 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 Organization 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 enquiries 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>

### **5. Legislation impacting the procurement of office furniture**

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)**

Not all wood furniture sold on the market is made from legal and non-endangered trees. For this reason, wood and wood-based products should include a reference to the CITES agreement. 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)**

In 2003 the EU adopted the FLEGT (Forest Law Enforcement Governance and Trade) action plan. 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 2008<sup>10</sup>.

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

In May 2008, the U.S government amended the 100 year old Statue, the Lacey Act, to include a wide range of commercial timber species. The government 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.

To address illegal logging and other illegal plant trade, the Lacey Act now legislates against the following:

- Prohibits all trade in plant and plant products (e.g., furniture, paper, or lumber) that are illegally sourced from any U.S. state or any foreign country;
- Requires importers to declare the country of origin of harvest and species name of all plants contained in their products; and
- Establishes penalties for violation of the Act.

For more information visit:

[http://www.fs.fed.us/global/topic/illegal\\_logging/welcome.htm](http://www.fs.fed.us/global/topic/illegal_logging/welcome.htm)<sup>11</sup>

### **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](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

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<sup>10</sup> 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>

<sup>11</sup> 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>

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)<sup>12</sup>**

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 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.

The Japanese Guideline includes definitions on legality and sustainability for timber procurement purposes as well as methods of verification and it is intended to be applied by companies that supply wood and wood products for public procurement in Japan, irrespective of where the wood has been produced.

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

Guideline for the verification of the legality and sustainability of wood and wood products is available from: <http://rinya.maff.go.jp/policy2/ihou/eiyaku.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>

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<sup>12</sup> EAFLEG 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](http://africasciencenews.org/asns/index.php?option=com_content&task=view&id=786&Itemid=1)

## **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 Panama's 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 harmonized 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
- A “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](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.

Existing system?

### **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](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](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)<sup>13</sup>

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.

#### Emissions of volatile organic compounds (VOCs)

Although no standard regulation exists for furniture regarding VOCs, there is a Directive for the reduction of industrial emissions of VOCs, Directive 1999/13/EC, amended by Directive 2004/42/EC. These cover a wide range of solvent using activities, which includes coating of wooden surfaces and other coatings including textiles, metal, wood and plastic lamination, wood impregnation, finishing processes in tanneries and degreasing processes. The VOC Solvents Directive establishes emission limit values for VOCs in waste gases and maximum levels for fugitive emissions (expressed as percentage of solvent input) for solvent using operators.

#### Surface treatment of metals and plastics

For surface treatment processes of metals and plastics by electrolytic and chemical processes using solvents, the Integrated Pollution, Prevention and Control (IPPC) Directive 96/61/EC applies. The EU has also established a set of common rules for permitting and controlling industrial installations in the IPPC Directive. The latter is about minimising pollution from various industrial sources throughout the European Union.

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<sup>13</sup> REACH in brief: [http://ec.europa.eu/environment/chemicals/reach/pdf/2007\\_02\\_reach\\_in\\_brief.pdf](http://ec.europa.eu/environment/chemicals/reach/pdf/2007_02_reach_in_brief.pdf)

### Leather

Directive 2002/45/EC applies more specifically to leather production, and prohibits the marketing of substances and preparations for the fat liquoring of leather containing C10-C13 chloro-alkanes in concentrations above 1%.

### **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 criteria - sources and rationale**

As ecolabels are a very valuable source of independently developed environmental performance criteria, the criteria included in the product sheet were largely based on the criteria of ecolabels for office furniture. Information on the ecolabels used is outlined below.

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. 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 furniture 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 HLCM/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>

## 6.1. Environmental labels for office furniture

A number of ecolabels for office furniture exist in different global regions, although none could be identified in East Africa or the Middle East. The following table displays the labels identified along with the number of products and/or companies certified.

Name & website	Region	Number of products/companies labelled
<b>Type I labels</b>		
Ecologo <a href="http://www.ecologo.org">http://www.ecologo.org</a>	North America	Office chairs: 3 labelled companies with 37 labelled products. In detail, office desk: 1 labelled company; panel systems: 2 companies and 7 labelled products; partitions: 1 company with 3 labelled products; tables: 2 companies with 9 labelled products.
Stichting Milieukeur (Netherlands) <a href="http://www.milieukeur.nl">http://www.milieukeur.nl</a>	Europe (Netherlands)	1 company certified.
NF Environment <a href="http://www.marque-nf.com/">http://www.marque-nf.com/</a>	Europe (France)	25 companies labelled for office furniture.
Nordic Swan <a href="http://www.svanen.nu">http://www.svanen.nu</a>	Europe (mainly Scandinavia)	23 companies labelled as suppliers of material used to produce furniture and manufactured furniture.
Austrian Ecolabel (Umweltzeichen) <a href="http://www.umweltzeichen.at/filemanager/list/15672">http://www.umweltzeichen.at/filemanager/list/15672</a>	Europe (Austria)	
Blaue Engel <a href="http://www.blauer-engel.de">http://www.blauer-engel.de</a>	Europe (Germany)	RAL-UZ 38 for wood-based products for office furniture: 12 companies labelled. RAL-UZ 117 for upholstered furniture: 2 companies labelled.
EcoMark <a href="http://www.ecomark.jp/english">http://www.ecomark.jp/english</a>	Japan	Unpublished
Good Environmental Choice Australia (GECA) <a href="http://www.aela.org.au/">http://www.aela.org.au/</a>	Australia	25 companies with ecolabelled furniture products.
Thai Green Label <a href="http://www.tei.or.th/greenlabel">http://www.tei.or.th/greenlabel</a>	Thailand	1 company labelled for metal furniture.
<b>“Type I like” labels</b>		
Oeko – Tex <a href="http://www.oeko-tex.com">http://www.oeko-tex.com</a>	Europe. For textiles only	There are a wide range of products and materials certified with the label internationally, in all the world regions. For more information visit: <a href="http://www.oeko-tex.com/OekoTex100_PUBLIC/content1.asp?area=hauptmenu&amp;site=%20einkaufsfuehrer&amp;cls=02">http://www.oeko-tex.com/OekoTex100_PUBLIC/content1.asp?area=hauptmenu&amp;site=%20einkaufsfuehrer&amp;cls=02</a>
Forest Stewardship Council (FSC) <a href="http://www.fsc.org">http://www.fsc.org</a>	International. For wood furniture only	39 companies are certified with the label internationally for office furniture products. Companies labelled are from the following countries: Brazil, United Kingdom, U.S., Germany, Canada, Italy and Ireland.
Programme for the Endorsement of Forest Certification (PEFC)	International. For wood only	5 wooden furniture manufacturers certified.

<a href="http://www.pefc.org">http://www.pefc.org</a>		
Sustainable Forestry Initiative (SFI) <a href="http://www.sfiprogram.org">http://www.sfiprogram.org</a>	North America (U.S and Canada). For wood only	Provides chain of custody certification and promotes the principles of legal and sustainable forestry.
Certfor (PEFC label accredited) <a href="http://www.certfor.org">http://www.certfor.org</a>	Chile (Latin America)	Internationally endorsed by PEFC. Sustainable and legal forestry principles certified by third parties.
Cerflor Forest Certification Programme Brazil (PEFC label accredited) <a href="http://www.inmetro.gov.br/qualidade/cerflor.asp">http://www.inmetro.gov.br/qualidade/cerflor.asp</a>	Brazil (Latin America)	Not known

The criteria underlying these labels are similar to a certain extent, but there are also important differences between them. Some labels, for instance, focus only on furniture made of one material. For instance, the German label 'Blaue Engel' (Blue Angel) only certifies furniture where more than 50 percent of it is made from wood (or wood-based) and the Thai Green Label exclusively certifies steel furniture (minimum 70 percent steel). The other main differences concern the limit values on specific emissions from the production phase of different products, the coverage of different materials (e.g. plastic, metal, textiles, coatings, foam, etc.) by the various labels and the criteria for the products supplied (e.g. durability, take-back schemes). Furthermore, classification schemes for harmful chemicals are regionally specific and the number of ecolabelled products and companies for office furniture is relatively low, particularly when comparing this information with other products such as cleaning products.

There are also a number of labels which certify wood itself, which can be used by producers of furniture as proof that sustainably sourced timber has been used. Again, however, the standards underlying the labels and verification methods do vary considerably.

Setting an internationally applicable set of criteria and recommendations for sustainable office furniture is indeed very challenging, particularly regarding sustainably ambitious criteria that can be met by the market.

## 6.2. Other guidance on office furniture – from the United Nations

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

- UNEP DTIE Environmental Criteria for Purchasing Office Furniture (RFP 230074/EM); developed in 2007. The criteria have been used for the procurement actions of the UNEP DTIE office in Paris. The criteria cover a range of environmental and social issues, such as: adherence to the Core Conventions of the ILO; criteria for the final products supplied (e.g. minimum of five years guarantee, easy to repair, maintenance possible using products that are free of organic solvents); and criteria regarding use and exclusion of certain substances in the production of furniture items (e.g. 70 percent sustainable wood if wood is not from recycled fibres, limited VOC emissions and use of formaldehyde, minimum recycled content for plastics and metals, environmentally friendly textiles).
- UNDP Procurement User Guide (available in English, French and Spanish) – Sets out the procurement policies and procedures which are maintained at the Headquarters of UNDP. The Guide provides detailed descriptions of each phase of the procurement process. For more information, visit: <http://content.undp.org/go/userguide/cap/procurement/?lang=en>
- 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 furniture – from other sources

A number of other sources have been found that provide useful guidance on sustainable office furniture for procurement purposes which should be considered:

- European Commission GPP Training Toolkit (European Union) – The toolkit provides a set of ‘core’ and ‘comprehensive’ public procurement criteria for furniture both for indoor and outdoor purposes. It has been used as the starting point for these guidelines. For more information, visit: [http://ec.europa.eu/environment/gpp/toolkit\\_en.htm](http://ec.europa.eu/environment/gpp/toolkit_en.htm)
- Swedish Environmental Management Council's (MSR) sustainable procurement criteria for furniture – The sustainable procurement criteria cover the following furniture products: desks, chairs, conference chairs, storage units and partitions for offices. For these products, the following elements are addressed: wood, plastics, textiles, leather as well as product use aspects. For more information, visit: [http://www.msr.se/en/green\\_procurement/criteria/](http://www.msr.se/en/green_procurement/criteria/)
- German Federal Environment Agency (UBA) (Germany) – Guidelines on purchasing cupboards, shelves and furniture to sit on where 50 percent of the overall weight of the furniture is made from timber or products derived from timber. For more information, visit: <http://www.beschaffung-info.de>
- Austrian government GPP guidance (Austria) – Covers stools, chairs and solid wood furniture. Guidance is provided on ergonomic suitability, reparability and durability, surface treatment of metals and low emission surface coating, for instance. For more information, visit: <http://www.ifz.tugraz.at/oekoinkauf/leitlinien-bund/M451.htm>
- Green Public Procurement Guidance for Basque (Spain, 2008) public administrations (in Spanish) – Guidance to purchase office furniture using a three level approach: basic, advanced and excellent. The guidance also includes checklists for suppliers (bidding companies) to use based on the purchasing criteria developed. The criteria cover the final product supplied and recommended criteria specifically for the materials used. For more information, visit: <http://www.ihobe.net/Pags/Castellano/Municipio/Herramientas/CCPV.asp?cod=2556A2D-D-9064-4DD1-B504-E38A540CFA36>
- GRIP Advice to Purchasers – Office Furniture (GRIP Centre, Norway, 1998) – Provides a list of detailed questions that purchasers should ask their future suppliers of office furniture and also suggests a scoring system. These are based to a large extent on the criteria of the Nordic Swan ecolabel. GRIP also publishes a list of undesirable chemical substances that can be used in the production of textiles (and clothes). The list and information are available here: <http://www.grip.no/Tekstiler/Chemicals.htm>
- Resort Municipality Whistler (Canada) Sustainable Purchasing Guide – Provides different options for purchasing furniture such as using reused lumber and recycled wood products, using FSC and other certified wood products and using wood free of formaldehyde and other volatile organic compounds (VOCs). For more information visit: <http://www.whistler2020.ca/whistler/site/productAssessment.acds?context=2065129>
- City of Santa Monica (U.S.A) Green Office Buying Guide – Do not have any green specifications for purchasing furniture but they do follow some general rules to a similar effect as green specifications. These having a focus on: buying durable furniture made with 20% recycled plastic content and with Greenguard certification (US certification scheme) for low-VOC emitting materials, furniture designed to be cleaned with safe

cleaning products and have replaceable parts and cushions. For more information visit:  
<http://www.smgov.net/epd/SP/greenoffice/main/index.html>

- WWF Tropical Wood, Guide for Buyers, Advertisers, Salespersons and Customers – The Guide presents information on sustainable wood for furniture, however, the focus is largely on furniture for outdoor use (e.g. gardens). For more information, visit:  
[http://www.wwf.fi/wwf/www/uploads/pdf/tropical\\_wood\\_guide.pdf](http://www.wwf.fi/wwf/www/uploads/pdf/tropical_wood_guide.pdf)
- Forest Certification Resource Centre – The Forest Certification Resource Center search tool enables users to navigate Metafore's (company operating the resource centre) in-depth forest certification database. More than 800 certified forests and 4,500 certified business locations worldwide are within this unique database. For more information visit:  
<http://www.certifiedwoodsearch.org/>

## 7. Implementing the sustainable procurement criteria

### 7.1. Using a life-cycle costing approach

For a single piece of furniture the most significant cost by far will be the purchase price (although disposal of large items may also involve some costs). However, the frequency of replacement also needs to be carefully considered – if a more expensive product lasts three times as long as a cheap model then it will likely prove economical in the long run.

It is important to consider such costing aspects in evaluating different offers. Certain tools are available which may help in for calculating the life-cycle cost of office furniture products:

- GRIP's Tool for Evaluation of Tenders (GRIP Centre, Norway, 2007, Version 2.0) – This is a general tool that can be use for almost all professional procurement, internationally. To download the tool visit: [http://www.grip.no/Innkjop/English/available\\_material.htm](http://www.grip.no/Innkjop/English/available_material.htm)
- 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/](http://www.msr.se/en/green_procurement/LCC/)
- The DEEP Toolkit – Supporting Public Authorities in Energy Efficient Procurement – Developed by ICLEI – Local Governments for Sustainability, this toolkit includes an LCC analysis tool (excel based spreadsheet) and covers issues such as: energy and water consumption, maintenance and replacements. For more information or to download the tool visit: <http://www.iclei-europe.org/index.php?id=4650>

The results of taking a life-cycle approach for purchasing decisions has been well documented for products such as electrical appliances, where an energy efficient version will cost less over the longer term due to reduced energy costs. Unfortunately there has been comparatively little work done on quantifying the lifecycle costing of office furniture. An example where some of these ongoing costs have been quantified is provided below.

A study conducted by the European Commission on the “Costs and Benefits of Green Public Procurement in Europe”<sup>14</sup> evaluated the cost difference between green and non-green products in the furniture sector of the European Union (EU). In the study they selected three pieces of furniture for the comparison of prices between 4 countries (Sweden, Germany, Spain and Czech Republic): mobile cabinets, open storage units and office chairs. Green products were defined as those certified with the Nordic Swan, Blue Angel, AENOR, Czech flower and Austrian ecolabels. The price differences found were as follows:

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<sup>14</sup> Costs and Benefits of Green Public Procurement in Europe. Part 1: Comparison of the Life Cycle Costs of Green and Non-green Products. Germany. 2007.

**Table 3. Costs of mobile cabinets in Euros (incl. VAT)**

	Costs		Differences	
	Non-green version	Green version	Absolute	Relative
SV	174	236	62	36%
DE	223	201	-22	- 10%
ES	129	219	90	70%
CS	142	225	83	58%

**Table 4. Costs of open storage units in Euros (incl. VAT)**

	Costs		Differences	
	Non-green version	Green version	Absolute	Relative
SV	433	437	4	1%
DE	226	462	236	104%
ES	223	451	228	102%
CS	143	162	19	13%

**Table 5. Costs of office chairs in Euros (incl. VAT)**

	Costs		Differences	
	Non-green version	Green version	Absolute	Relative
SV	335	398	62,5	19%
DE	295	355	59,5	20%
ES	311	369	58	19%
CS	319	378	59,5	19%

The conclusions of the study show for all product types and selected EU Member States that the green version is more expensive than the non-green version (with the exception of mobile cabinets in Germany). However, in all cases a very big variety of different products exist, making it difficult to find two products which are identical except for the green criteria. The price differences therefore might also reflect differences in quality or fitting. To put it another way: differences between fittings or brands seem to have a greater impact on price than differences between the green and non-green versions.

## 7.2. Verification of sustainable office furniture requirements

The furniture sector is characterised by the existence of many companies, most of which do not produce the whole piece of furniture but assemble parts produced by other companies. This means that information on the environmental characteristics of the different materials that make up furniture pieces will come from more than one company.

In order to verify compliance with the environmental criteria, information from material producers will be necessary. This includes self-declarations, lists of products used in material production and treatment, as well as product safety sheets.

As noted above, some ecolabels exist for furniture, however typically only for certain types of products and also materials (e.g. wood, plastics, metals) as well as issues (e.g. disposal).

As such, only the label covering most products – the Nordic Swan - will be able to demonstrate compliance with most criteria.

## 8. Information sources

### Ecolabels and other criteria sources

- Austrian ecolabel (“Österreichische Umweltzeichen” - the national Austrian ecolabel): <http://www.umweltzeichen.at/>.
- Bärsch, J (2001): The Feasibility of an EU Ecolabel for Furniture. Klaus Novy Institute e.V., prepared for the Umweltbundesamt (Federal German Environment Agency). Cologne/Deventer.
- Blue Angel (“Blaue Engel” - the German national ecolabel): <http://www.blauer-engel.de>
- Commission of the European Communities (2004). Buying Green: A Handbook on Environmental Public Procurement. Office for Official Publications of the European Communities, Luxembourg.
- Eco Mark Japan (Japanese national ecolabel): <http://www.ecomark.jp/english/>
- European Commission GPP Training Toolkit: [http://ec.europa.eu/environment/gpp/toolkit\\_en.htm](http://ec.europa.eu/environment/gpp/toolkit_en.htm)
- Forest Stewardship Council (FSC) (environmental and social third-party certification scheme that promotes responsible management of the world's forests): <http://www.fsc.org>
- Nordic Swan (Scandinavian ecolabel): <http://www.svanen.nu>
- Sætrang, Øystein (1998): GRIP Advice to Purchasers - Office Furniture. GRIP Centre - Foundation for Sustainable Production and Consumption, Oslo, Norway.
- Programme for the Endorsement of Forest Certification (PEFC): <http://www.pefc.org>

### Legislation

- 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: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:347:0001:01:EN:HTML>
- Directive 79/117/EEC of 21 December 1978 prohibiting the placing on the market and use of plant protection products containing certain active substances: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31979L0117:EN:HTML>
- Draft Regulation on a Community energy-efficiency labelling programme for office equipment, <http://www.europarl.europa.eu/sides/getDoc.do?Type=TA&Reference=P6-TA-2007-0298&language=EN>
- REACH regulation. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC: [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:136:0003:01\\_REG\\_2006\\_1907\\_280:EN:HTML](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:136:0003:01_REG_2006_1907_280:EN:HTML)
- Globally Harmonised System of Classification and Labelling of Chemicals (GHS): [http://www.unece.org/trans/danger/publi/ghs/ghs\\_welcome\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html)

### Studies, websites and other information

- Central Point of Expertise on Timber Procurement: <http://www.proforest.net/cpet>

- Clement, S (2006): The Procura<sup>+</sup> Manual 2nd edition: A guide to cost effective Sustainable Public Procurement. ICLEI – Local Governments for Sustainability, Freiburg, Germany.
- Illegal Logging: <http://www.illegal-logging.info>. Managed by Chatham House, United Kingdom
- Resort Municipality of Whistler (2006) Sustainable Purchasing Guide. Moving Towards Sustainable Procurement. Whistler, Canada.
- 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](http://www.unep.org/DEC/links/chemicals_wastes.html)
- UNON Supplier Sustainable Procurement Guidelines (Annex G)
- UNEP: UNEP Environmental Criteria for Office Furniture (RFP 230074/EM)
- UNOPS and UNEP (2009): “A Guide to Environmental Labels for procurement Practitioners of the United Nations system”.