

Sustainable Procurement Guidelines

STATIONERY

Toner Cartridges & Ink

PRODUCT SHEET

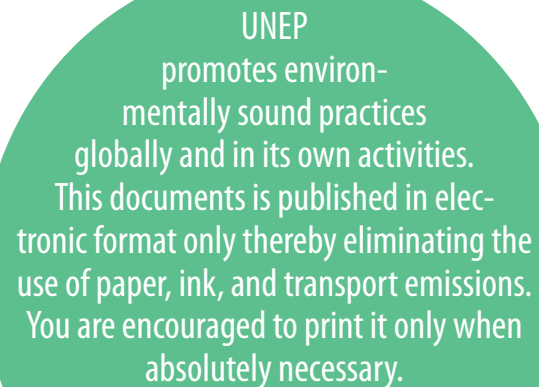
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Section 1: Introduction and Scope

Sustainable Procurement

“Sustainable Procurement practices integrate requirements, specifications and criteria that are compatible and in favour of the protection of the environment, of social progress and in support of economic development, namely by seeking resource efficiency, improving the quality of products and services and ultimately optimizing costs.”¹

Scope

This Product Sheet, together with the Background Report, constitutes the sustainable procurement guidelines for stationary products in the UN system. The main objective of the Background Report is to give comprehensive information on the rationale behind the sustainable procurement recommendations made in the Product Sheets. This covers aspects such as “key environmental impacts”, “key social considerations”, “appropriate verification schemes”, “indicative market availability of sustainable products” amongst others.

This Product Sheet focuses on toner cartridges, products that are generally used in various types of office appliances such as laser printers, photocopiers and fax machines.

Structure

Two sets of sustainability criteria are presented in the Sustainable Procurement guidelines:

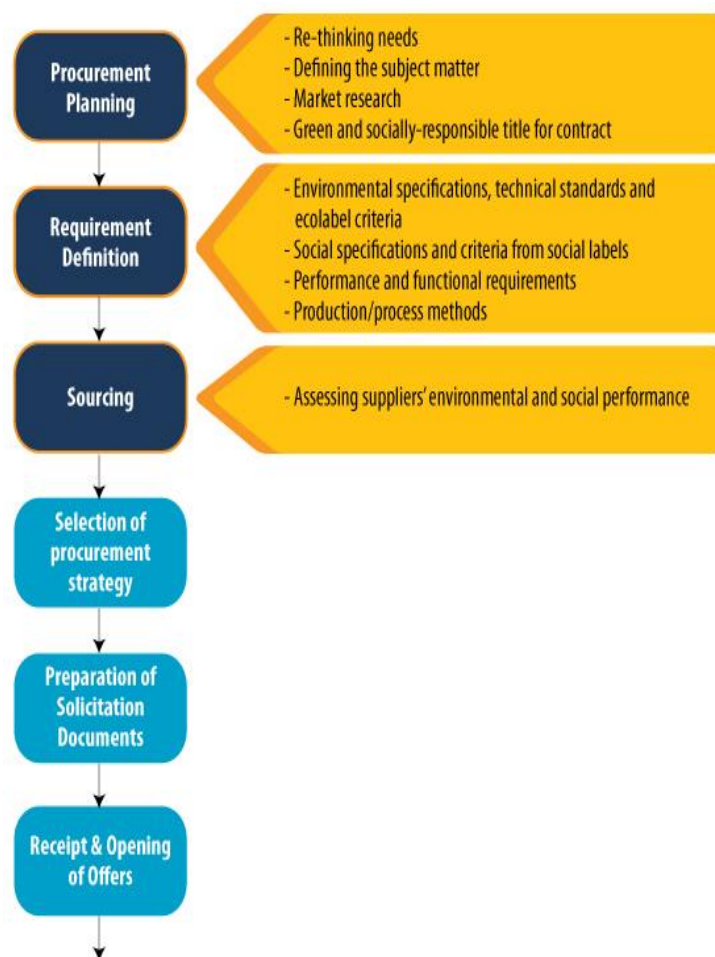
- **Basic sustainability criteria** address the most significant environmental and social impacts, and are designed to be used with minimum additional verification effort or cost increases.
- **Advanced sustainability criteria** are intended for use by procurers who seek to purchase the best environmental and socially-responsible products available on the market, and may require additional administrative effort or imply a certain cost increase as compared to other products fulfilling the same function.

The criteria are divided into the typical steps in a procurement action: tender subject matter, technical specifications, supplier qualification requirements, evaluation criteria, and contract clauses. For each criterion guidance is also provided on verifying compliance.

¹ Definition adopted by the High Level Committee on Management Procurement Network.

Section 2: Incorporating Sustainability into the UN Procurement Process

This diagram highlights the stages at which sustainable procurement interventions should be integrated.



A - Procurement planning

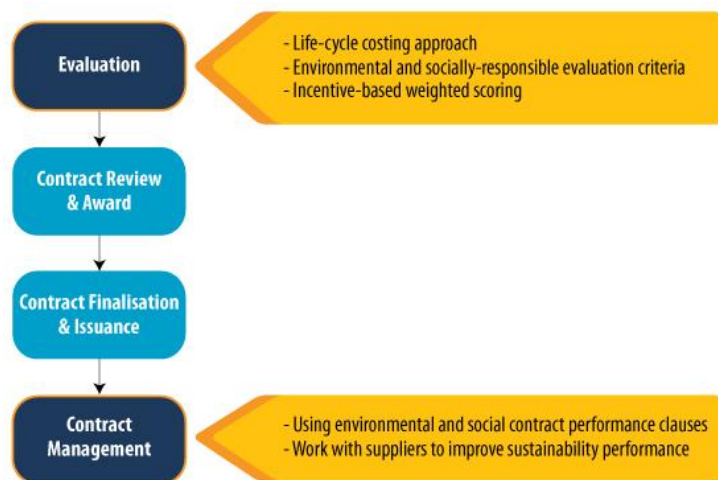
Procurement planning is essential to assess needs, define an appropriate budget and analyse the market to have a better idea of available products meeting sustainability criteria. The subject matter of the contract defines and, more importantly, communicates what the purchasing authority intends to purchase. Explicitly phrasing the subject matter of the contract in such a way that it integrates the sustainability goal to be achieved is an important first step to take in the tendering process. 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.**

B - Requirement definition

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.

C - Sourcing

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. **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.



Source: Adapted from UNDP Environmental Procurement Practice Guide, 2008

D - Evaluation

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 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.**

E - Contract management

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.

Section 3: Sustainability and verification criteria

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
A – Procurement planning			
Provision of toner cartridges made in an environmentally and socially responsible way			
B – Requirement definition			
<p>Heavy metals in toner (see Implementation Note)</p> <p>Toners must not be manufactured with a combined total (that is, maximum) of more than 100 ppm (parts per million) of heavy metals (lead, mercury, cadmium, or chromium).</p>	<p>All products carrying the Blaue Engel (German ecolabel), the Umweltzeichen (Austrian ecolabel), the Eco Mark Japan, Ecologo, Thai Green Label or the Nordic Swan will be deemed to comply.</p> <p>Any other appropriate means of proof demonstrating that the criteria are met will also be accepted, such as a technical dossier from the manufacturer, a test report from a recognised body showing compliance, or a declaration from the manufacturer, such as the ECO Declaration (EMCA-370) (version 2008 or more recent, with point P1.1 marked “yes”). 'Recognised bodies' are test and calibration laboratories and certification and inspection bodies which comply with applicable regional, national and/or international standards.</p>	•	•
<p>Azo-colorants in toner</p> <p>The content of the toner powder of primary unsulphonated aromatic amines soluble in 1M hydrochloric acid and expressed as aniline does not exceed 500 mg/kg, and there is no more than 10 mg/kg Benzidine, β-Naphthylamine and 4-Aminobiphenyl</p>	<p>All products carrying the Blaue Engel (German ecolabel), the Umweltzeichen (Austrian ecolabel), the Eco Mark Japan, Ecologo, Thai Green Label or the Nordic Swan ecolabel will be deemed to comply.</p> <p>Any other appropriate means of proof demonstrating that the criteria are met will also be accepted, such as a technical dossier from the manufacturer, a test report from a recognised body showing compliance or a declaration</p>	•	•

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
	from the manufacturer. 'Recognised bodies' are test and calibration laboratories and certification and inspection bodies which comply with applicable regional, national and/or international standards.		
<p>Harmful and hazardous substances in toner (see Implementation Note)</p> <p>Toners shall not contain harmful and hazardous substances or chemicals that are classified in one of the following sets of criteria²:</p> <p>Option a) Globally Harmonized System of Classification and Labelling of Chemicals (GHS)</p> <p>Any ingredient in the offered products that constitutes over 0.1% of the product must not be classified under the following categories under the GHS.</p> <p>Carcinogenic Substances – Categories 1,2</p> <p>Mutagenic Substances – Categories 1,2</p> <p>Respiratory Sensitisation – Category 1</p> <p>Substances Toxic for Reproduction – Categories 1,2,3</p> <p>Specific Target Organ Systemic Toxicity – Single Exposure – Category 1,2</p> <p>Specific Target Organ Systemic Toxicity – Repeated Exposure – Category 1</p> <p>Option b) European Union categories</p> <p>The toner powder must not be classified with the following hazard symbols or R phrases according to European Council Directive 67/548/EEC and its amendments or Directive 1999/45/EC on the approximation of laws,</p>	<p>All products carrying the Blaue Engel (German ecolabel), Nordic Swan or Umweltzeichen (Austrian ecolabel) will be deemed to comply.</p> <p>Any other appropriate means of proof demonstrating that the criteria are met will also be accepted, such as a technical dossier from the manufacturer, a test report from a recognised body showing compliance, or a declaration from the manufacturer.</p> <p>Bidders shall demonstrate compliance with the criterion of “quality and guarantee” in writing. 'Recognised bodies' are test and calibration laboratories and certification and inspection bodies which comply with applicable regional, national and/or international standards</p>		•

² Note: Currently there are a few discrepancies between the EU ecolabels and the other ecolabels, we are currently working to find out what is exactly covered by national regulation on harmful and hazardous substances.

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
<p>regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances³</p> <p>Toxic - T or Very Toxic – T+</p> <p>R40 (limited evidence of carcinogenic effect)</p> <p>R42 (may cause sensitisation by inhalation)</p> <p>R45 (may cause cancer)</p> <p>R46 (may cause heritable genetic damage)</p> <p>R48 (Danger of serious damage to health by prolonged exposure)</p> <p>R49 (may cause cancer by inhalation)</p> <p>R68 (possible risks of irreversible effects)</p> <p>R60 (may impair fertility)</p> <p>R61 (may cause harm to the unborn child)</p> <p>R62 (possible risk of impaired fertility)</p> <p>R63 (possible risk of harm to the unborn child)</p>			
<p>Requirements for case parts (for remanufactured toner cartridges, this requirement applies to materials in replacement parts only) (see Implementation Note)</p> <p>Plastic Parts shall:</p> <ul style="list-style-type: none"> - Contain a maximum of 0.1% Polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs); and - Not contain any chlorinated plastics. 	<p>All products carrying the Blaue Engel (German ecolabel, Nordic Swan, Umweltzeichen (Austrian ecolabel), the Eco Mark Japan or the Thai Green Label will be deemed to comply.</p> <p>Any other appropriate means of proof demonstrating that the criteria are met will also be accepted, such as a technical dossier from the manufacturer, a test report from a recognised body showing compliance, or a declaration from the manufacturer.</p> <p>Bidders shall demonstrate compliance with the criterion of “quality and guarantee” in writing. ‘Recognised bodies’ are test and calibration laboratories and certification and</p>	•	

³ Some of the classifications may not be included in some Ecolabels because they are banned from use in commercial products in the region. They have been included here because countries outside the European Union may not have this ban in place.

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
	inspection bodies which comply with applicable regional, national and/or international standards		
<p>Requirements for case parts (for remanufactured toner cartridges, this requirement applies to materials in replacement parts only) (see Implementation Note)</p> <p>Plastic Parts shall:</p> <ul style="list-style-type: none"> - Contain a maximum of 0.1% Polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs); - Contain a maximum of 0.01% of cadmium, except in electrical or electronic components and wires; - Contain a maximum of 0.1% of chromium VI, mercury and lead; - Not contain any chlorinated plastics; and - Be labelled at least in accordance with DIN/ISO 11469:2000. Exemptions from this requirement are plastic parts lighter than 25g, parts with a flat area less than 200 mm² and any reused parts. 	<p>All products carrying the Blaue Engel (German ecolabel, Umweltzeichen (Austrian ecolabel), the Eco Mark Japan or the Thai Green Label will be deemed to comply.</p> <p>Any other appropriate means of proof demonstrating that the criteria are met will also be accepted, such as a technical dossier from the manufacturer, a test report from a recognised body showing compliance, or a declaration from the manufacturer.</p> <p>Bidders shall demonstrate compliance with the criterion of “quality and guarantee” in writing. ‘Recognised bodies’ are test and calibration laboratories and certification and inspection bodies which comply with applicable regional, national and/or international standards.</p>		•
<p>Ease of re-use/recycling (see Implementation Note)</p> <p>Original cartridges shall</p> <ul style="list-style-type: none"> - Have modules that are easily separable by hand or with standard tools; - Not have non-separable joints, such as glued or welded joints between different materials (for case parts and chassis); - Not have integrated circuit chips or other devices or designs installed or implemented to prevent disassembly or re-use; and - Suppliers or manufacturers do not place or attempt to place physical, contractual, or legal restrictions upon the use of remanufactured cartridges by third parties. 	<p>Bidders must provide a written declaration of compliance with this criterion. Upon request, they may be asked to provide samples of the product and/or documentation from manufacturers of cartridges or their components.</p>	•	•

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
<p>Take-back scheme (see Implementation Note)</p> <p>Bidders shall ensure that empty and used toner cartridges are taken back for the purpose of reusing and recycling the toner cartridge. Within the scope of such a scheme, empty and used printing modules (including their components) supplied by the applicant must be taken back for the purpose of reprocessing and recycling.</p> <p>Information on the terms of the take-back scheme as well as the return station shall be included on the product packaging. Information/instructions on appropriate handling of the toner cartridges, for example, for opening and closing, shall also be provided on the product itself.</p>	<p>Bidders must provide appropriate documentation of the existence of a toner cartridge take-back scheme.</p> <p>Bidders must demonstrate the existence of appropriate information/instructions on handling cartridges.</p>	•	•
<p>Environmentally preferred packaging</p> <p>The packaging materials shall</p> <ul style="list-style-type: none"> - Not contain PVC or other chlorinated plastics; - Be separable into mono-material parts, and at least 80 percent of the packaging by weight shall consist of materials that are readily recyclable (with locally available recycling systems) or can be composted; and - Any cardboard packaging used shall consist of 50% recycled material (post- and pre-consumer waste). <p>Post-consumer waste is produced by the end users, such as consumers, offices or similar. Pre-consumer waste is recovered from the manufacturing process, that is, off cuts and trimmings and reintroduced back into the manufacturing process.</p>	<p>Bidders must provide a list of the different packaging materials used for the product, their weight and a declaration by the packaging producer/s where the percentage of recycled content for cardboard in their packaging is specified.</p>		•

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
C - Sourcing			
<p>Compliance with environmental legislation (see Implementation Note)</p> <p>Bidders shall not be permitted to take part in a contract if they:</p> <p>Have been found guilty of grave professional misconduct, including non-compliance with environmental legislation, proven by any means which the contracting authorities can demonstrate; or have not fulfilled obligations relating to the payment of social security contributions in accordance with the legal provisions of the country in which he/she is established or with those of the country of the contracting authority.</p>	Bidders must provide a written declaration that they meet this criterion. Upon request, they may be asked to provide documentary proof to support this declaration.	•	•
<p>Production of the product according to international labour standards (self-declaration)</p> <p>The bidder shall provide proof that they and the manufacturers of the toner cartridges (where different) and all of the first tier suppliers of the manufacturer of the product, comply with the international working standards (ILO Core Conventions) listed below:</p> <ul style="list-style-type: none"> • Freedom of Association and Protection of the Right to Organise (No. 87) • Right to Organise and Collective Bargaining (No. 98) • Forced Labour (No. 29) • Abolition of Forced Labour (No. 105) • Discrimination (Employment and Occupation) (No. 111) • Equal Remuneration (No. 100) • Minimum Age (No. 138) • Worst Forms of Child Labour (No. 182) 	The bidder is required to submit appropriate proof that these requirements have been met. A self-commitment/declaration (such as an up-to-date Electronic Industry Code of Conduct (EICC) declaration) that the requirements are met, together with documentary support of the implementation and monitoring of measures will be deemed to comply.	•	

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
<p>Production of the product according to international labour standards (independent third party certified)</p> <p>The bidder shall ensure that they and the manufacturers of the toner cartridges (where different) and all of the first tier suppliers of the manufacturer of the product comply with the international working standards (ILO Core Conventions) listed below:</p> <ul style="list-style-type: none"> • Freedom of Association and Protection of the Right to Organise (No. 87) • Right to Organise and Collective Bargaining (No. 98) • Forced Labour (No. 29) • Abolition of Forced Labour (No. 105) • Discrimination (Employment and Occupation) (No. 111) • Equal Remuneration (No. 100) • Minimum Age (No. 138) • Worst Forms of Child Labour (No. 182) 	<p>Upon demand the bidder is required to submit independent third party verification that the requirements are met.</p>		•
<p>Written corporate environmental policy</p> <p>The bidder and the manufacturer of the final product(s) are required to demonstrate the existence and public availability of a written corporate environmental policy, consistent with ISO 14001 (International Organisation for Standardisation), or equivalent.</p>	<p>Proof of compliance is the written corporate environmental policy, consistent with ISO 14001 (International Organisation for Standardisation), or equivalent. Any other appropriate means of proof will also be accepted.</p>	•	
<p>Operational, third-party certified, environmental management system</p> <p>The bidder shall provide certificates that they, their manufacturer(s) and all of the first tier suppliers of the manufacturer of the product have an operational, third-party certified, environmental management system that meets one of three recognised systems: ISO 14001, European EMAS, U.S. EPA Performance Track or equivalent.</p>	<p>The bidder is required to provide certificates for themselves, their manufacturer(s) and all of the first tier suppliers of the manufacturer of the product of the third-party certified environmental management system, such as ISO 14001, European EMAS, U.S. EPA Performance Track or equivalent.</p>		•

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
D - Evaluation			
<p>Harmful and hazardous substances in toner (see Implementation Note 7)</p> <p>Points shall be awarded if the toner does not contain harmful and hazardous substances or chemicals that are classified in one of the following sets of criteria⁴:</p> <p>Option a) Globally Harmonized System of Classification and Labelling of Chemicals (GHS)</p> <p>Any ingredient in the offered products that constitutes over 0.1% of the product must not be classified under the following categories under the GHS.</p> <p>Carcinogenic Substances – Categories 1,2 Mutagenic Substances – Categories 1,2 Respiratory Sensitisation – Category 1 Substances Toxic for Reproduction – Categories 1,2,3 Specific Target Organ Systemic Toxicity – Single Exposure – Category 1,2 Specific Target Organ Systemic Toxicity – Repeated Exposure – Category 1</p> <p>Option b) European Union categories</p> <p>The toner powder must not be classified with the following hazard symbols or R phrases according to European Council Directive 67/548/EEC and its amendments or Directive 1999/45/EC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances.⁵</p>	<p>All products carrying the Blaue Engel (German ecolabel), Nordic Swan, Umweltzeichen (Austrian ecolabel), the Eco Mark Japan or the Thai Green Label will be deemed to comply.</p> <p>Any other appropriate means of proof demonstrating that the criteria are met will also be accepted, such as a technical dossier from the manufacturer, a test report from a recognised body showing compliance, or a declaration from the manufacturer.</p> <p>Bidders shall demonstrate compliance with the criterion of “quality and guarantee” in writing. ‘Recognised bodies’ are test and calibration laboratories and certification and inspection bodies which comply with applicable regional, national and/or international standards</p>	•	

⁴ Note: Currently there are a few discrepancies between the EU ecolabels and the other ecolabels, we are currently working to find out what is exactly covered by national regulation on harmful and hazardous substances.

⁵ Some of the classifications may not be included in some Ecolabels because they are banned from use in commercial products in the region. They have been included here because countries outside the European Union may not have this ban in place.

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
<p>Toxic - T or Very Toxic – T+</p> <p>R40 (limited evidence of carcinogenic effect)</p> <p>R42 (may cause sensitisation by inhalation)</p> <p>R45 (may cause cancer)</p> <p>R46 (may cause heritable genetic damage)</p> <p>R48 (Danger of serious damage to health by prolonged exposure)</p> <p>R49 (may cause cancer by inhalation)</p> <p>R68 (possible risks of irreversible effects)</p> <p>R60 (may impair fertility)</p> <p>R61 (may cause harm to the unborn child)</p>			
<p>Re-used/remanufactured cartridges (see Implementation Note)</p> <p>Points shall be awarded if cartridges are re-used or remanufactured⁶</p> <p>Definition of Remanufactured Cartridge: A cartridge that is assembled from cleaned, inspected and qualified new and used parts, and filled with new toner. A minimum of 75% of the weight of the toner cartridge (excluding toner) also consists of reusable parts material. Printing capacity is not less than 90% of the original model.</p> <p>Manufactured cartridges must additionally have been tested according to one of the following schemes: ISO/IEC 19752, ISO/IEC 19798, DIN 155, DIN 33870, DIN 33871-1, ASTM F 1531, or ASTM F 1856 in combination with ASTM F 2036, or an equivalent quality assurance system. Alternatively, Suppliers may demonstrate quality according to the scheme outlined in Annex 3 below.</p>	<p>Proof of remanufacture: Products carrying the Blaue Engel (German ecolabel), Nordic Swan, Umweltzeichen (Austrian ecolabel), Ecologo, the Thai Green Label or the Eco Mark Japan are deemed to comply. Any other appropriate means of proof demonstrating that the criteria are met will also be accepted, such as a technical dossier from the manufacturer, a test report from a recognised body showing compliance, or a declaration from the manufacturer.</p> <p>Quality assurance: All remanufactured products carrying the Blaue Engel (German ecolabel), Nordic Swan, Umweltzeichen (Austrian ecolabel), Ecologo, the Thai Green Label or the Eco Mark Japan will be deemed to comply. Alternatively documentation demonstrating testing and results according to one of the outlined schemes or equivalent must be provided.</p>	•	•

⁶ Although here the term 'remanufactured' is used, it can be used interchangeably with the term 're-used'.

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
Environmentally preferred packaging Points shall be awarded for products which: <ul style="list-style-type: none"> - Do not contain PVC or other chlorinated plastics; - Are separable into mono-material parts, and at least 80 percent of the packaging by weight consists of materials that are readily recyclable (with locally available recycling systems) or can be composted; and, - Uses cardboard packaging that consists of 50% recycled material (post- and pre-consumer waste). - Post-consumer waste is produced by the end users, such as consumers, offices or similar. Pre-consumer waste is recovered from the manufacturing process, that is, off cuts and trimmings and reintroduced back into the manufacturing process. 	Bidders must provide a list of the different packaging materials used for the product, their weight and a declaration by the packaging producer/s where the percentage of recycled content for cardboard in their packaging is specified.	•	
Operational, third-party certified, environmental management system Points shall be awarded if the bidding company can provide certificate(s) that they, their manufacturer(s) and all of the first tier suppliers of the manufacturer of the product have an operational, third-party certified, environmental management system that meets one of three recognised systems: ISO 14001, European EMAS, U.S. EPA Performance Track, or equivalent.	The bidder is required to provide certificates for all the companies in the supply chain of the third-party certified environmental management system, such as ISO 14001, European EMAS, U.S. EPA Performance Track, or equivalent.	•	
Supply method - reduction of CO₂ equivalent emissions (see Implementation Note) Bidders should indicate measures which will be taken over the course of the contract to reduce the CO ₂ equivalent emissions associated with the supply of their products for the purpose of this contract or overall transportation operations. Bidders should also indicate the methodology to be used to calculate and monitor these emissions over the contract period. Points will be awarded according to both the effectiveness of the measures proposed, and for the robustness of the calculation and monitoring methodology proposed.	Bidders should provide a clear description of the proposed measures and monitoring methodology.		•

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
E – Contract Management			
<p>Production of the product according to international labour standards (self declaration)</p> <p>The contractor shall ensure that they, the manufacturers (where different) and all of the first tier suppliers of the manufacturer of the product comply with the international working standards (ILO Core Conventions) listed below:</p> <ul style="list-style-type: none"> • Freedom of Association and Protection of the Right to Organise (No. 87) • Right to Organise and Collective Bargaining (No. 98) • Forced Labour (No. 29) • Abolition of Forced Labour (No. 105) • Discrimination (Employment and Occupation) (No. 111) • Equal Remuneration (No. 100) • Minimum Age (No. 138) • Worst Forms of Child Labour (No. 182) <p>The contractor is required to provide a self-declaration/commitment regarding the demonstrated extent of compliance with the abovementioned ILO Core Conventions throughout its entire supply chain. By the end of the contract, the contractor shall report on the efforts made to improve compliance with the above ILO Core Conventions throughout its entire supply chain.</p>	<p>The bidder is required to submit appropriate proof that these requirements have been met. A self-commitment/declaration (such as an up-to-date Electronic Industry Code of Conduct (EICC) declaration) that the requirements are met, together with documentary support of the implementation and monitoring of measures deems to comply.</p> <p>A report shall be provided at the end of the contract that demonstrates the extent of compliance with the ILO Core Conventions throughout the entire supply chain for the product, and the improvements made in this regard.</p>	•	

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
<p>Production of the product according to international labour standards (independent third party certified)</p> <p>The contractor shall ensure that they, the manufacturers of the toner cartridges (where different) and all of the first tier suppliers of toner cartridges or their components to the manufacturer comply with the international working standards (ILO Core Conventions) listed below:</p> <ul style="list-style-type: none"> • Freedom of Association and Protection of the Right to Organise (No. 87) • Right to Organise and Collective Bargaining (No. 98) • Forced Labour (No. 29) • Abolition of Forced Labour (No. 105) • Discrimination (Employment and Occupation) (No. 111) • Equal Remuneration (No. 100) • Minimum Age (No. 138) • Worst Forms of Child Labour (No. 182) <p>The contractor is required to provide a self-declaration/commitment regarding the demonstrated extent of compliance with the abovementioned ILO Core Conventions throughout its entire supply chain. By the end of the contract, the contractor shall report on the efforts made to improve compliance with the above ILO Core Conventions throughout its entire supply chain.</p>	<p>Upon demand the bidder is required to submit independent third party verification that the requirements are met.</p> <p>A report shall be provided at the end of the contract that demonstrates the extent of compliance with the ILO Core Conventions throughout the entire supply chain for the product, and the improvements made in this regard.</p>		•
<p>Guarantee of repairs (for remanufactured cartridges only)</p> <p>The contractor shall guarantee to repair any damages caused by its remanufactured cartridges to the printing machine.</p>	<p>The bidder is required to submit a written guarantee that any damages caused to the printer by their remanufactured cartridges will be repaired.</p>	•	•
<p>Emissions from transport of the product</p> <p>The contractor shall provide quantified information on the amount of CO₂ equivalent emissions from the transportation of products supplied for the</p>	<p>By the end of the contract, the contractor must submit a report containing this information.</p>	•	•

SUSTAINABILITY CRITERIA	VERIFICATION	basic	advanced
contract and/or from their overall transportation operations, together with documentation of the methods used to calculate these emissions, and a description of specific measures taken to reduce these emissions.			
Take-back scheme Empty and used printing cartridges shall be taken back by the contractor for the purpose of reusing/reprocessing and recycling. Information on the terms of the take-back scheme as well as where the cartridge should be returned to shall be included on the product packaging. Information/instructions on appropriate handling of the toner cartridges, e.g. for opening and closing, shall also be provided on the product itself.	The contractor must provide appropriate documentation where the take-back scheme is stated. The contractor must demonstrate the existence of appropriate information/instructions on handling cartridges.	•	•
Disposal The contractor shall ensure that remaining toner in used cartridges is recycled or disposed of in a manner that complies with all environmental and human health and safety laws.	The bidder is required to submit appropriate proof that this requirement will be met, such as through a written self-commitment/declaration.	•	•

Section 4: Implementation notes

1. B - Requirement definition – Applicability of criteria in different regions

The availability of suitable sustainable (or 'green') product alternatives can differ greatly from region to region. For regions or countries outside of the European Union, North America and Japan, conducting an initial market analysis is recommended prior to starting the tendering or purchasing process. Should the Requirement Specifications (or technical specification) recommended here seem too ambitious for market supply of toner cartridges after the market analysis, it is recommended that the Requirement Specification in question are included as Evaluation/Award criteria instead.

2. B - Requirement definition – Reference to labels in verification

Other relevant ecolabels may also exist in your region which may also be used to verify compliance. Please check if they are a Type I ecolabel, according to ISO 14024, and ensure they demonstrate compliance with the criteria presented here. For more information on ecolabels and environmental labels and their use in the UN procurement process, please consult: "A Guide to Environmental Labels for United Nations Procurers" published by UNOPS and UNEP (as part of the SUN initiative) (May 2009). For more information regarding ecolabels available globally, please consult the website of the Global Ecolabelling Network (GEN): www.globalecolabelling.net

3. B - Requirement definition – Harmful and hazardous substances in toner

Other relevant harmful and hazardous criteria may exist in your region which may also be used to verify compliance. Please check for the relevant chemicals against the lists provided from the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) scheme or the European Union classification system.

4. B - Requirement definition – Requirements for case parts

The European Commission has stated that from July 2006, lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) in electrical and electronic equipment must be replaced by other substances in its "restriction of the use of certain hazardous substances in electrical and electronic equipment" (Directive 2002/95/EC). However, as it is not always possible to completely abandon these substances, the Commission provides for a tolerance level of 0.1% for lead, mercury, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs), and a tolerance level of 0.01% for cadmium. If you are located outside of the European Union, different regulations may apply. Procurers should check their national legislation concerning the legality of plastic additives. However, if you are located outside of the European Union, different regulations may apply. Procurers should check their national legislation concerning the legality of plastic additives.

4. B - Requirement definition – Ease of re-use/recycling

In reference to the fourth point "Suppliers or manufacturers do not place or attempt to place physical, contractual, or legal restrictions upon the use of remanufactured cartridges by third parties" please note that using a remanufactured cartridge should not affect the warranty of a printer unless it is the single cause of the printer's malfunction.

5. B - Requirement definition – Take-back scheme

It is possible that a toner cartridge take-back scheme may not be available for some regions/countries outside the European Union, North America and Japan. Therefore, it is recommended that purchasers inquire specifically as to whether such a scheme is available in their region/country before the start of the

tendering or procurement process. In situations where a take-back scheme is not available, this particular criteria should be included as an Evaluation/Award criteria, rather than a Requirement Specification.

6. C - Sourcing suppliers – Compliance with environmental legislation

Where appropriate, the contracting authorities should ask bidders to supply relevant documents and, where they have doubts concerning the personal situation of a bidder, they may seek the co-operation of the competent authorities in the particular country.

The exclusion of such economic operators should take place as soon as the contracting authority has knowledge of a judgement concerning such offences. If national law contains provisions to this effect, non-compliance with environmental legislation or legislation on unlawful agreements in public contracts which has been the subject of a final judgement or a decision having equivalent effect may be considered an offence concerning the professional conduct of the economic operator concerned or grave misconduct.

Exclusion of suppliers on the basis of non-compliance with environmental legislation may prove impractical in situations where a strong legal framework and enforcement is not in place. The procurer will need to assess his or her own situation.

7. D - Evaluation: award/evaluation criteria - Harmful and hazardous substances in toner

The criteria is based on the European Union and GHS (Globally Harmonized System) classification systems for harmful and hazardous chemical substances. Other national and regional systems may exist in your region. If so, the criteria should be adapted accordingly.

8. D - Evaluation: award/evaluation criteria - Re-used/remanufactured cartridges

Some printing machines may not accept the usage of re-used or remanufactured cartridges due to the use of specific technology. Please check with the manufacture before using such cartridges to ensure that the printer will accept the remanufactured cartridge and whether a key card/sim card/cartridge chip is necessary or not. If a key card/sim card/cartridge chip is necessary, it is important that this technology is available and included with the remanufactured cartridge.

Additionally, please note that using a remanufactured cartridge should not affect the warranty of a printer unless it is the single cause of the printer's malfunction. It is therefore important to purchase remanufactured cartridges from a company or qualified source that guarantees to repair any damages that its cartridges cause. One way to verify this is to confirm if the company or association has liability insurance and indemnifies both the cartridges they supply and your printer.

Different printing capacity and quality standards exist internationally and nationally and there may be others that exist in your country which can be added to the list of test standards in the criteria. Additionally, there is currently an ISO Working Group developing a global quality management standard in the 9001 series for toner cartridges.

9. D - Evaluation: award/evaluation criteria - Supply method - reduction of CO₂ equivalent emissions

This award criterion is designed to be assessed on a qualitative basis, by comparing both proposed measures and the methodologies proposed by suppliers for tracking and reducing their CO₂ equivalent emissions. As it can be difficult to assess and objectively compare different offers, purchasers applying this award criteria may wish to employ an expert on their evaluation panel.

No universally recognised method for tracking transportation CO₂ emissions exists, however preference will be given to proposals based on internationally agreed upon protocol or methodology such as the International Local Government Greenhouse Gas Emissions Analysis Protocol (IEAP) or the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol (GHG Protocol) or ISO 14064-1:2006.

Section 5: Information sources

- ASTM International, originally known as the American Society for Testing and Materials (ASTM), is one of the largest voluntary standards development organisations worldwide for technical standards for materials, products, systems, and services. www.astm.org/ Relevant Standards include:
ASTM F1856-04 (2009) Standard Practice for Determining Toner Usage for Printer Cartridges: www.astm.org/Standards/F1856.htm
ASTM F2036 - 05e1 Standard Test Method for Evaluation of Larger Area Density and Background on Electrophotographic Printers: www.astm.org/Standards/F2036.htm
- Austrian ecolabel ("Österreichische Umweltzeichen" - the Austrian ecolabel): www.umweltzeichen.at/. Specific criteria used:
UZ 57: Office and School Articles; UZ 11: Toners
- Belgian Guide for Sustainable Procurement: www.guidedesachatsdurables.be/ Specific criteria sets used:
Ink cartridges for printers (toners) Versions: Basic, Medium and Advanced
- Blue Angel ("Blaue Engel" - the German ecolabel): www.blauer-engel.de/en/index.php Specific criteria sets used:
RAL-UZ 55: Recycled Printing Modules Refilled with Toner
RAL-UZ 122: Office Equipment with Printing Function (Printers, Copiers, Multi-functional Devices)
- Chlorine-Free Products Association (CFPA): www.chlorinefreeproducts.org/
- Clement, S (2006): The Procura⁺ Manual. A Guide to Cost-Effective Sustainable Public Procurement (2nd Edition). ICLEI – Local Governments for Sustainability (2007): www.procuraplus.org/index.php?id=4611
- Deutsches Institut für Normung (DIN). DIN is the German Institute for Standardisation that develops standards and technical rules. DIN is the acknowledged national standards body and represents German interests in European and international standards organisations. www.din.de/cmd?level=tpl-home&languageid=en Relevant standards and technical reports include:
DIN 33870: Information technology; Office machines – Requirements and tests for the preparation of refilled toner modules for electrophotographical printers, copiers and facsimile machines
DIN 33871-1: Information technology - Office machines, inkjet print heads and inkjet tanks for inkjet printers - Part 1: Preparation of refilled inkjet print heads and inkjet tanks for inkjet printers
DIN Technical Report 155: Describes the procedure for refilling monochrome and colour toner cartridges used in office printers
- Directive 2002/95/EC <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:037:0019:0023:en:PDF>
EU legislation restricting the use of hazardous substances in electrical and electronic equipment.
- Ecologo (North American ecolabel): www.ecologo.org/. Specific criteria used: CCD-040: Printing inks
- Eco Mark Japan (Japanese ecolabel): www.ecomark.jp/english/. Specific criteria sets used:
Product Category 102, "Printing Ink Version 2.2"
Product Category 135, "Toner Cartridge Version 1.5"
Product Category 142, "Ink Cartridges Version 1.0"

- Environmental Choice (New Zealand ecolabel): www.enviro-choice.org.nz/ Specific criteria sets used: Toner Cartridges EC-30-05

Printing Inks EC-17-08

- European Commission Green Public Procurement Training Toolkit: http://ec.europa.eu/environment/gpp/toolkit_en.htm
- GreenLiving (Taiwan Ecolabel): <http://greenliving.epa.gov.tw/GreenLife/>. Specific criteria:
Recycled and Refilled Toner Cartridges for Printer; Original Toner Cartridges
- International Electrotechnical Commission (IEC): www.iec.ch. The IEC prepares and publishes International Standards for all electrical, electronic and related technologies – collectively known as “electrotechnology”.
- Korea Eco-Label: www.koeco.or.kr/eng/. Specific criteria:
EL104: Toner Cartridges
- NF Environnement (French national ecolabel): www.marque-nf.com/. Specific criteria: REGNF 335: Toners
- Nordic Swan (Scandinavian ecolabel): www.svanen.nu/eng/. Specific criteria sets used:
Writing Instruments
Toner Cartridges (remanufactured)
Imaging Equipment

Printing Companies

- Office Depot. Greener Office Guide: www.officedepot.eu/GreenerOffice/
- Programme for the Endorsement of Forest Certification (PEFC) (promotes sustainable forest management - environmentally, socially beneficial and economically viable management of forests for present and future generations - through independent third party forest certification): www.pefc.org
- Responsible Purchasing Guide: Toner Cartridges. Responsible Purchasing Network, www.responsiblepurchasing.org/purchasing_guides/toner_cartridges/index.php
- Thai Green Label Scheme (Thailand national ecolabel): www.tei.or.th/greenlabel/. Specific criteria sets used:
TGL-30-R1-03: Toner Cartridge
TGL-29-00: Writing Instruments
- UNDP Environmental Procurement Practice Guide. Volumes 1 and 2. UNDP Bureau of Management, Procurement Support Office (2008): www.undp.org/procurement
- UNON Supplier Sustainable Procurement Guidelines (Annex G)

Section 6: Checklist for selection of Toner Cartridges

The following checklist is designed to:

- Provide a quick overview of the criteria presented above
- Be used by UN procurers/requisitioners in assessing different offers

The Check-list only includes general headings and does not include the criteria themselves. The criteria are presented in the document above.

For specifications (or terms of reference for services) and sourcing criteria, the procurer should insert “yes” or “no” in the final column depending on whether the product or service meets the criteria presented above.

For each award/evaluation criteria, the procurer should assess the performance of the product or service being evaluated and decide how many points should be awarded.

Please note that only the advanced criteria are included as an example below.

Check-list: Toner cartridges and inks	
B - Requirement definition	Yes/No
Heavy metals and azo-colorants in toner (ink)	
Harmful and hazardous substances in toner (ink)	
Re-used/remanufactured cartridges	
Recycled content	
Take-back scheme	
Environmentally-friendly packaging	
C - Sourcing	Yes/No
Compliance with environmental legislation	
Production of the product according to international labour standards (independent third party certified)	
Operational, third-party certified, environmental management system	

D - Evaluation: award/evaluation criteria	Points
Re-used/Remanufactured cartridges	
Recycled content	
E – Contract Management	Yes/No
Production of the product according to international labour standards (independent third party certified)	
Emissions from transport of the product	
Take-back scheme	
Disposal	

Section 7: Evaluation/Award criteria matrix

This matrix provides a model which procurers may wish to use in the evaluation/award phase of the procurement process. The matrix (provided below) should serve as an example of how procurers can allocate bonus points for sustainability criteria when evaluating competing bids.

The evaluation criteria, for instance, in the form of the evaluation matrix, should be included as an annex in the tender documents published by the procurement/contracting authority.

The sustainability criteria included in the evaluation phase should be considered alongside other standard evaluation criteria, such as cost (ideally full costs over the lifetime of the product, i.e. life-cycle costing) and quality. As a rule of thumb, the total weighting given to sustainability criteria is recommended to be about 20% of the total points given to all evaluation criteria.

TONER CARTRIDGES - Sustainability evaluation criteria	Bonus points (max. 100 points)	Score
1. Re-used/Remanufactured cartridges Points shall be awarded if the remanufactured cartridges are re-used or remanufactured according the following definition: <ul style="list-style-type: none"> - A minimum of 75% of the weight of the toner cartridge (excluding toner) consists of reusable parts material. - Printing capacity shall not be less than 90% of the original model. 	Fulfilment of criterion = 50 points Non-fulfilment of criterion = 0 points	
2. Harmful and hazardous substances in toner Points shall be awarded if the toners do not contain harmful and hazardous substances or chemicals that are classified as toxic, carcinogenic, harmful to reproduction or harmful to the environment according to national or international classification standards.	Fulfilment of criterion = 20 points Non-fulfilment of criterion = 0 points	
3. Packaging Points shall be awarded if the packaging for the	Fulfilment of criterion = 10 points	

<p>printer/toner cartridges:</p> <ul style="list-style-type: none"> - Do not contain PVC or other chlorinated plastics. - If the materials are separable into mono-material parts. At least 80 percent of the packaging by weight shall consist of materials that are readily recyclable (with locally available recycling systems) or can be composted. - The cardboard packaging shall consist of 50% recycled material. 	Non-fulfilment of criterion = 0 points	
<p>4. Operational, third-party certified, environmental management system</p> <p>Points shall be awarded if the bidding company can provide certificate(s) from the manufacturer(s) that they and all companies throughout the whole product supply chain engaged in the design or manufacture of the product have an operational, third-party certified, environmental management system that meets one of three recognised systems: ISO 14001, European EMAS, U.S. EPA Performance Track, or equivalent.</p>	<p>Fulfilment of criterion = 20 points</p> <p>Non-fulfilment of criterion = 0 points</p>	
SUM		

Section 8: Quality and Capacity Calculations⁷

Use either one of the calculations:

[Calculation 1]

Number of sheets that can be printed with original (OEM) cartridge: C1

$$C1(\text{in sheets}) = ((M1-M2)/(M1-M3)) \times 1000$$

M1: Weight of original (OEM) cartridge

M2: Weight of original (OEM) cartridge after use

M3: Weight of toner (OEM) cartridge after printing on 1000 A4-size sheets at 5% of the effective range

Number of sheets which can be printed with a remanufactured cartridge: C2

$$C2(\text{in sheets}) = ((M4-M5)/(M4-M6)) \times 1000$$

M4: Weight of remanufactured cartridge

M5: Weight of remanufactured cartridge after use

M6: Weight of toner cartridge after printing on 1000 A4-size sheets at 5% of the effective range

$$\text{Printing capacity percentage (\%)} = (C2/C1) \times 100$$

[Calculation 2]

Under the same conditions/environment, check by performing a use-up print test with a new (OEM) cartridge and a remanufactured cartridge, respectively, on an A4 size sheet with the effective range of 5%. Note that for the print test, charts of ISO/IEC19752 (monochrome) and ISO/IEC24712 (color) may be used.

C1 (sheet) = Number of printable sheets when printing takes place with a new (OEM) cartridge under the above conditions

C2 (sheet) = Number of printable sheets when printing takes place with a remanufactured cartridge under the above conditions

$$\text{Printing capacity percentage (\%)} = (C2/C1) \times 100$$

Notes:

Tests shall be repeated three times or more, but the number of machines that are used in the test is not specified. The machine used for the calculation of C1 and C2 shall be the same.

“After use” prescribed in M2 and M5 of [Calculation 1] means: when white lines occur due to toner shortage after the start of test, the cartridge is removed and shaken 5 or 6 times to even the toner; the test is resumed after this work; and the point when white lines occur the second time is defined as “after use”. The weight of original (OEM) and remanufactured cartridges at this point is defined as M2 and M5, respectively.

⁷ Adapted from: Japanese Ecolabel Eco Mark, Product Category No.132 for Toner Cartridges, Version1.5 (http://www.ecomark.jp/english/pdf/132eC1_b.pdf)

SUSTAINABLE UNITED NATIONS

Sustainable United Nations (SUN) is a UNEP initiative that provides support to UN and other organisations to reduce their greenhouse gas emissions and improve their sustainability overall.

SUN was established in response to the call from UN Secretary General Ban Ki-Moon at the World Environment Day 2007 (5 June), to all UN agencies, funds and programmes to reduce their carbon footprints and “go green”. This call was echoed in October 2007 in a decision of the UN Chief Executives Board (CEB/2007/2, annex II) to adopt the UN Climate Neutral Strategy, which commits all UN organisations to move towards climate neutrality. Within this context, SUN is working with the UN Environment Management Group – the UN body coordinating common environmental work within UN – to provide guidance, and develop tools and models for emission reduction within organisations.



ICLEI - LOCAL GOVERNMENTS FOR SUSTAINABILITY

ICLEI – Local Governments for Sustainability is an international association of local governments and national and regional local government organisations founded in 1990. ICLEI currently has 1,200 members worldwide and almost 200 in Europe. Since 1996, ICLEI's Sustainable Procurement team has been providing professional information, advice, networking opportunities, training and tools to public authorities wanting to implement high quality, cost effective sustainable procurement practices (www.iclei-europe.org/procurement).





About the Sustainable Procurement Guidelines

The UN operates to achieve the goals of peace, equality, sustainable development and respect for human rights. The way the UN manages its operations and procures products and services should reflect these goals.

Ensuring lowest environmental and most positive social impact of procurement does not only build on the international community commitments. It also manages the reputational risks associated with labour exploitation or environmental damage in the supply chain; it gives a strong signal to the market and encourages the innovative production of cleaner and more ethical products enhancing an economy based on social and environmental responsibility.

These guidelines are designed to assist UN procurers and requisitioners in their choice to include sustainability considerations in their procurement work. They are built on the recognition that market situations are different from one country to another and thus provide advice based on research made about availability of more sustainable products in world regions. Overall, the guidelines provide a comprehensive overview of the specific factors affecting the sustainability of a given product category and suggest a language and specific criteria to include sustainability in tenders.

Guidelines are specifically provided for the areas of:

- IT equipment
- Cleaning
- Furniture
- Stationary
- Vehicles
- Cafeterias, Food and Kitchen equipment.
- Freight Forwarding
- Generators and Batteries
- Carbon Credits

They are available at: www.greeningtheblue.org and www.ungm.org

For more information

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