

Sustainable Public Procurement Guidelines *on* **Office Furniture**

The Procurement Policy Office

(under the aegis of the Ministry of Finance and Economic Development)

8th Floor, Emmanuel Anquetil Building
Port Louis, Mauritius



Environmental Management Centre LLP

*C-29, Royal Industrial Estate
Naigaon X Road, Wadala, Mumbai – 400031
INDIA*

Tel: +91 22 40049210 -11; Fax: +91 22 40049218

Web: www.emcentre.com

July 2013

Contents

List of Figures.....	iv
List of Tables.....	v
List of Boxes.....	vi
Abbreviations.....	vii
1. Introduction, Scope and Methodology	1
1.1 Scope	1
1.2 Methodology of Developing SPP Guidelines for Mauritius.....	1
1.3 Structure	2
2. Incorporating Sustainability into the Mauritian Procurement Process	3
2.1 Public Procurement Act (PPA) 2006	3
2.2 Procurement Planning under PPA 2006.....	6
2.3 Requirement definitions under PPA 2006	7
2.4 Prequalification under PPA 2006	7
2.5 Evaluation under PPA 2006	7
2.5.1 Sustainability Evaluation Criteria.....	7
2.5.2 Evaluation Process under PPA 2006	8
2.6 Framework agreements	9
3. Institutional Enablers for Sustainable Public Procurement (SPP) in Mauritius.....	9
3.1 “Maurice Ile Durable” (MID) Policy, Strategy and Action Plan	9
3.2 National Programme on Sustainable Consumption and Production (2008 - 2013) 10	
3.3 National Action Plan on SPP for Mauritius (2011-2015)	11
3.4 Solid Waste Management	11
3.5 Facilitation of End-of-Life Disposal of Procured Items in Public Bodies	12
4. Key Environmental Impacts	13
4.1 Potential environmental impacts of materials used in office furniture	16
4.1.1 Wood and wood-based products.....	16
4.1.2 Metals	17
4.1.3 Plastics	18
4.1.4 Textiles and leather.....	18

4.1.5	Padding materials	19
4.1.6	Surface coatings	19
4.1.7	Glues and adhesives	20
4.1.8	Packaging.....	20
4.1.9	Use and disposal of furniture	20
4.2	Reducing the key environmental impacts.....	21
5.	Key Social Considerations	22
6.	Legislations Impacting Procurement of Office Furniture.....	24
6.1	Environmental Regulations	24
6.2	Social regulations	24
7.	Framework for developing Sustainability Criteria	25
7.1	Background.....	25
7.2	GPNI’s Common Core Criteria	25
7.3	Relevance and Applicability	28
7.4	Prequalification Criteria	28
7.5	Sustainability Criteria	28
8.	Office Furniture – Key Sustainability Criteria	30
8.1	Procurement Planning	30
8.2	Developing the criteria – Sources and rationale	30
8.3	Verification methods	30
8.4	Sustainability criteria and verification guidance	31
8.4.1	Prequalification Criteria.....	31
8.4.2	Requirement Definition	32
8.5	Implementation notes.....	36
8.5.1	On Prequalification	36
8.5.2	On Requirement definitions.....	37
8.5.3	On Evaluation	38
9.	Evaluation of Criteria.....	38
10.	Relevant Ecolabels.....	43
11.	Information Sources.....	45
12.	Additional Guidance.....	46

List of Figures

Figure 1- Public Procurement Act 2006.....	3
Figure 2- Mauritius procurement process	5
Figure 3- Stages at which sustainability interventions can be incorporated in the procurement process	5
Figure 4: Institutional enablers to stimulate SPP in Mauritius	13
Figure 5: Key Environmental Impacts across the Life Cycle of Furniture	15
Figure 6: Key Environmental Impacts and their Risks	16
Figure 7: 8 Common Core Criteria proposed by GPNI	26

List of Tables

Table 1- Key environmental impacts of office furniture	21
Table 2: Description of GPNI's Common Core Criteria.....	26
Table 3: Linking Prequalification Criteria to GPNI's Common Core Criteria	28
Table 4: Linking Sustainability Criteria to GPNI's Common Core Criteria - Office Furniture	29
Table 5 – Prequalification Sustainability Criteria - Office Furniture	31
Table 6: Sustainability Criteria – Office Furniture	32
Table 7: Weighting for Sustainability Criteria.....	38
Table 8: Rating Scheme for Sustainability Criteria	40
Table 9: Ecolabels relevant to Furniture.....	44

List of Boxes

Box 1: Inter-linkages between SPP and Mauritian Ecolabelling framework	11
Box 2: Inter-linkages between SPP and SWM pilot projects.....	12

Abbreviations

EU	European Union
EFL	Environment Friendly Label
EMS	Environmental management Systems
EU	European Union
GPNI	Green Purchasing Network of India
LCA	Life Cycle Assessment
LCC	Life Cycle Cost
MID	Maurice Ile Durable
OAP	Open Advertised Bidding
PPA	Public Procurement Act
PPO	Public Procurement Office
PUR	Polyurethane
PVC	Poly Vinyl Chloride
SCP	Sustainable Consumption and Production
SIDS	Small Island Developing State
SPP	Sustainable Public Procurement
SWM	Solid Waste Management
TOR	Terms of Reference
UF	Urea-formaldehyde
UNEP	United Nations Environment Program
USEPA	United States Environment Protection Agency
VOC	Volatile Organic Compound

1. Introduction, Scope and Methodology

The sustainable procurement guidelines for Office Furniture for the Mauritius Public Procurement System have been developed with the twin objectives to give comprehensive information on the rationale behind the sustainable procurement recommendations and to present the sustainability criteria that can be used for Sustainable Public Procurement (SPP). This document covers aspects such as “key environmental impacts”, “key social considerations”, “appropriate verification schemes” amongst others.

The understanding of SPP has been drawn from the following:

“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

1.1 Scope

The term “Office furniture” comprises a range of items (chairs, tables, wardrobes, shelves, cupboards, etc.) for different end uses (sitting, working, storing, hanging etc), but excludes items like building products (e.g. steps, walls, mouldings, panels), sanitary equipment, carpets, and others whose primary purpose is not to function as furniture.

These guidelines focus particularly on the component materials of office furniture - wood, metals and plastics, textiles, padding plus finishing (e.g. coatings, adhesives) – and are therefore applicable to any kind of furniture item purchased.

1.2 Methodology of Developing SPP Guidelines for Mauritius

The scope of SPP guidelines for Mauritius has been defined using UNEP sustainable public procurement guidelines for the product. The Public Procurement Act, 2006 of Mauritius was reviewed to identify the parts where sustainable guidelines would need to be incorporated.

The key regulations in Mauritius that have a direct or indirect bearing on emission standards, indoor air quality, waste management, use of chemicals in product manufacture, end-of-life use, labour working conditions and welfare were reviewed for developing the product specific criteria. Similarly international conventions to which Mauritius is a signatory were

¹Definition adopted by the High Level Committee on Management Procurement Network of the United Nations System

also reviewed. The overall institutional enablers for sustainability in Mauritius have also been additionally reviewed to appreciate the initiatives taken under various programs.

The environmental impacts of the products across the life cycle namely materials, production, transport, use and disposal have been assessed for development of sustainability criteria.. Similarly the social considerations in terms of impacts on workers and community across the life cycle have also been incorporated.

The framework developed by Green Purchasing Network of India (GPNI) as an internationally coordinated and harmonized system was used as the basis for developing the product sustainability criteria for Mauritius. The GPNI framework identified eight common core criteria for sustainability.

A comparison was drawn between product criteria of UNEP, European Commission EUROPA, Green Purchasing guidelines used in Japan and select ecolabels such as Blue Angel and Nordic Swan to identify criteria SPP in Mauritius. The UNEP criteria were used as a base, to which criteria from the other sources that were found applicable to Mauritius and easy to verify were added. Such criteria which have relevance to Mauritius have been used.

Refer **Annex 1** for differences between UNEP guidelines and the product guidelines developed for Mauritius.

The sustainability criteria have been customized considering the fact that most products are imported from other countries and verification of compliance to the criteria needs further strengthening in Mauritius. The criteria have been classified as basic and advanced to enable seamless integration of 'sustainability' in the procurement process. The 'basic' criteria are easy to comply and verify; and have to be fulfilled at all times for procurement of the product. The 'advanced' criteria can be adopted once the system matures and the market along with other requirements for sustainable public procurement is better developed.

1.3 Structure

The guidance document starts with discussion of key environmental impacts of furniture for office use and then brings out the social considerations which need to be addressed. The legislations, if any, in the context of the product manufacture and across the life cycle has been discussed next.

Subsequently the sustainability criteria have been discussed and two sets of sustainability criteria applicable to the Mauritian context have been proposed:

- **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 viz, tender subject matter, technical specifications, supplier qualification requirements and evaluation criteria. For each criterion, guidance is also provided on how to verify compliance.

The document contains implementation notes as guidance for implementing the proposed SPP criteria. Additional information on life cycle costing and ecolabels has also been provided.

2. Incorporating Sustainability into the Mauritian Procurement Process

2.1 Public Procurement Act (PPA) 2006

The Act elucidates the basic principles and procedures to be applied during public procurement of goods, public works and services. Consisting of nine Parts each dealing with different aspects of public procurement from institutional framework to the conduct of the bidding process, it forms the overarching procurement guide for public procurers (refer **Figure 1**)

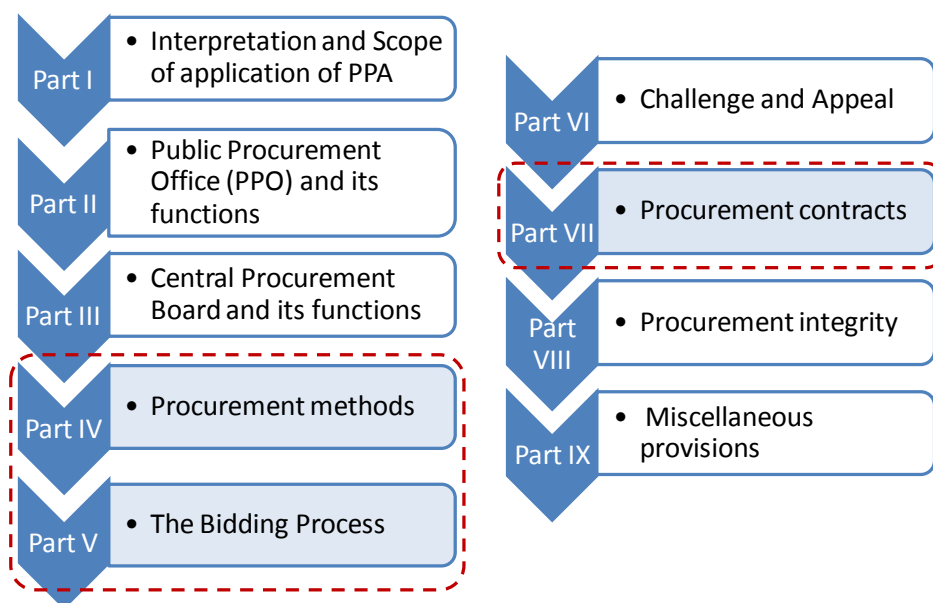


Figure 1- Public Procurement Act 2006

Parts IV, V and VII are of importance in SPP, as sustainability considerations will feature in these. This subsection briefly explains about the relevance of Part IV (Procurement methods) in SPP, while Parts V and VII are elaborated upon in subsequent sub-sections.

In Part IV, the conditions for the use of procurement methods other than open advertised bidding, and the mandate to provide reasons for doing so, are described. Of the total ten

methods² listed in the PPA, **six** are stated to be “for procurement of goods, other services and works” (which is the category the five SPP target products fall under):

1. Open advertised bidding
2. Restricted bidding
3. Request for sealed quotations
4. Direct procurement
5. Community or end-user participation, or
6. Departmental execution

Of these six, the PPA mandates that open advertised bidding (OAB) be the preferred method employed, while the other five methods should be used only in cases where “the public body has reason to believe that OAB will not be efficient or practical for the procurement in question; or OAB will be too costly to apply given the value of the procurement”. The unique situation underlying the use of each of the other five methods is explained³.

On further examining these specific situations, it has been identified that OAB is most suited for SPP for the five target products. In OAB, equal access is provided to all eligible and qualified bidders without discrimination; the proceedings may include a prequalification stage, or post qualification procedures, before selection of the winning bidder.

OAB may be carried out in two stages⁴: In the first stage, the document inviting bids will outline the purpose, broad specifications of the work or service to be procured, expected bidder qualifications required and invite bidders to submit technical bids without a bid price but with their comments. After the first stage, those bids that do not meet the prequalification requirements may be rejected, or the technical specifications, award criteria and contract conditions may be modified in order to maximize competition. The second stage involves inviting the responsive bidders to submit final bids with prices.

In the Mauritian procurement cycle (refer **Figure 2**), sustainability can be incorporated at several stages. Figure 2 depicts the outline of conventional Mauritian procurement process⁵ as conducted as per PPA 2006.

² The ten methods are: Open advertised bidding, Open national bidding, Open international bidding, Restricted bidding, Request for sealed quotations, Emergency procurement, Community and end-user participation, Departmental execution, Request for proposals, Direct procurement

³ Refer PPA, 2006; Part IV, No. 19, 20, 22, 23, 25.

⁴ Refer PPA, 2006; Part V, No. 29 for more details

⁵ Also referred to as *bidding process*

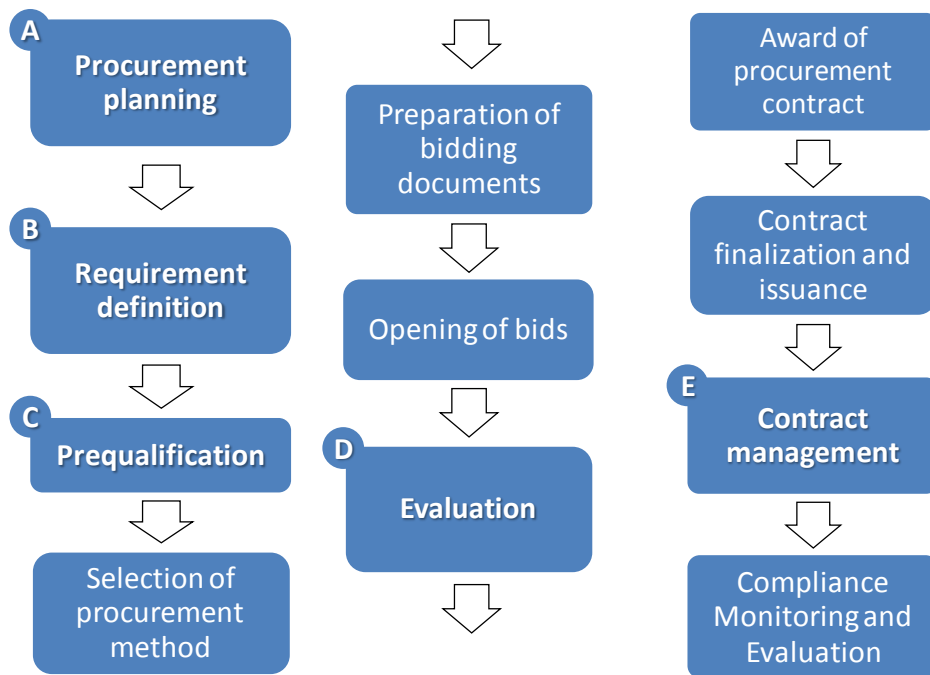


Figure 2- Mauritius procurement process

Source: Adapted from UNEP Procurement Process (SPP Guidelines Product Sheet Furniture)

Figure 3 highlights the stages at and the manner in which sustainability interventions could be introduced in the process

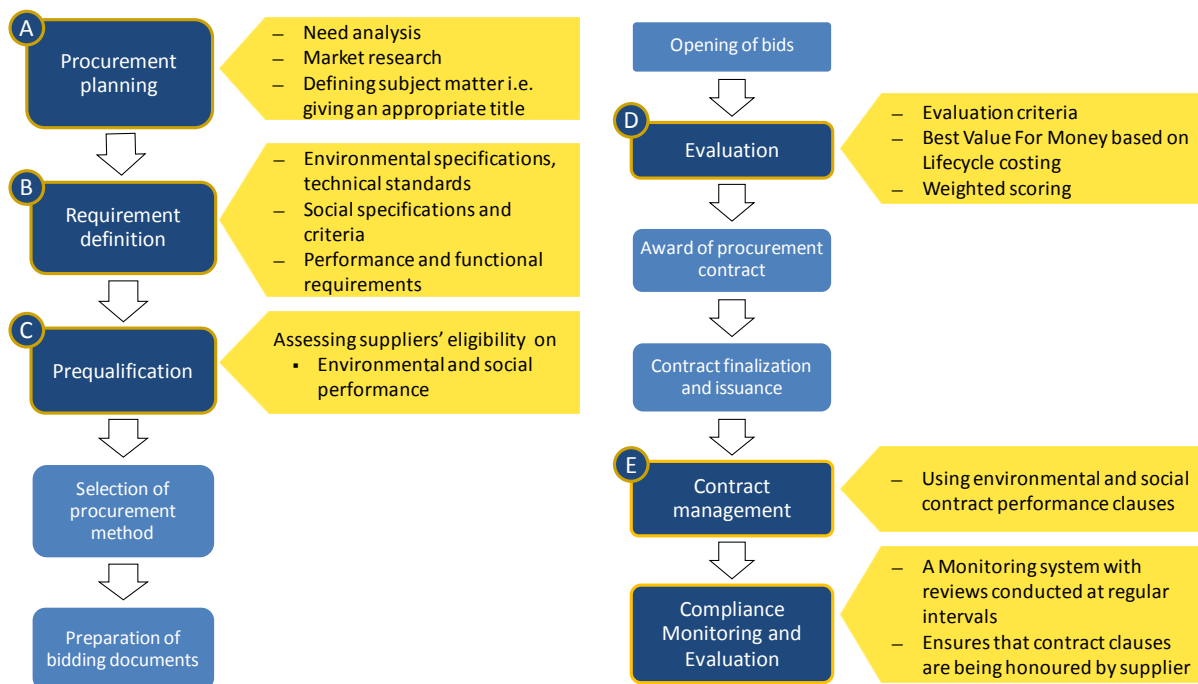


Figure 3- Stages at which sustainability interventions can be incorporated in the procurement process

The subsections below describe details of how this could be achieved.

2.2 Procurement Planning under PPA 2006

Procurement planning is an essential step in SPP. It is the process of identifying and consolidating requirements and determining the timeframes for their procurement with the aim of having them as and when they are required. At this step the need assessment should be carried out with due considerations been given to the required outcome sought from the procurement and whether the 'need' can be met by more sustainable alternative. Considering sustainability at an early stage of procurement decision-making may identify opportunities to:

- avoid or reduce consumption, by finding other alternatives
- identify whether there is a more sustainable alternative readily available
- rethink and revise specifications in order to improve sustainability outcomes

The procurement planning phase could contain several important sustainable procurement-related interventions, as an extension of its conventional goals of ensuring timely solicitation of bids, cost efficiency, making an annual procurement plan (budgeting, product type and quantities, procurement method etc), conducting market research and identifying needs, among others.⁶ Of particular importance are the needs assessment exercise and defining the subject matter (a green title for the contract).

Conducting a rigorous **needs analysis** forms an important part of this stage of SPP since reducing consumption is the simplest way to reduce one's impact on the environment. Correctly identifying the volumes to be procured including evaluating ways in which volumes can be reduced, is the first step. (*A hypothetical example: If furniture is needed for conference rooms, perhaps the possibility of sharing the furniture or room between agencies as and when required, can be explored. This would be a sustainable option instead of each agency procuring new furniture for its conference rooms. The proposition is dependent on a host of factors like distances between agencies, conference timings not overlapping, etc*). It would involve internal consultations on current arrangements and potential adjustments in current modes of functioning. There may or may not be opportunities to reduce quantities, but the option must be explored as it forms the first step to integrating sustainability in Mauritian public procurement.

Giving a **green title** (i.e. the subject matter) to the contract conveys to the market the intention of procuring with sustainability considerations in mind. Clearly labelling a contract with a green title makes it easier for prospective bidders to promptly recognize the requirements of the procurer. It instantly expresses the point that the environmental performance of the product or service will have significant importance at the award stage,

⁶Public Procurement (Regulations 2008), Mauritius; Environmental Procurement Practice Guide Volume 1, UNDP Practice Series. September 2008. http://www.greeningtheblue.org/sites/default/files/UNDP-Environmental%20procurement_0.pdf

and that the other steps in the procurement process are linked to the title. Examples of titles include: “Recycled paper for writing, printing and copying purposes”; “Environmental cleaning services including selective waste collection”⁷.

2.3 Requirement definitions under PPA 2006

Also commonly called “Technical specifications”, it defines environmental requirements of the product or service in detail. Although UNEP keeps it as a separate stage in the procurement process, the Mauritian Public Procurement (Regulations 2008) includes it as a part of the Procurement planning stage⁸. **It must be ensured that the introduction of environmental considerations does not mean that the quality of the product can be compromised upon. Sustainability must not come at the expense of expected functionality of the product or service. The quality and functionality of the sustainable product must either be the same, or better than, what is hitherto being procured.**

2.4 Prequalification under PPA 2006

Also called “Sourcing criteria”, this stage involves setting criteria (and evaluating against these) to assess the sustainability performance of bidders, in order to ensure that bids from eligible companies enter the evaluation stage. Unless bidders pass this stage, they are not permitted to submit bids. The technical and professional qualifications of bidders are examined to determine their capability to supply the desired products. This stage may address the sustainability experience of the bidder and its environmental and social performance. This method may be a useful way to improve the general environmental management and corporate social responsibility of companies. Where possible, preference should be given to domestic Mauritian suppliers, in accordance with the SME promotion initiative of the Government⁹.

2.5 Evaluation under PPA 2006

2.5.1 Sustainability Evaluation Criteria

The National Action Plan for Sustainable Public Procurement in Mauritius (2011-2015) defines “Evaluation Criteria” as follows:

“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

⁷ Environmental Procurement Practice Guide Volume 1, UNDP Practice Series. September 2008.
http://www.greeningtheblue.org/sites/default/files/UNDP-Environmental%20procurement_0.pdf

⁸ Termed as defining and describing the procurement requirements” in the Public Procurement (Regulations 2008)

⁹ Promotion of SMEs through a business facilitation programme has been given priority by the Government through the Business Facilitation (miscellaneous provisions) Act 2006. (Source: Source: National Action Plan on Sustainable Public Procurement (SPP) for Mauritius (2011- 2015)

*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. **Sustainability evaluation criteria should, altogether, account for at least 10 % of the total points available.**"¹⁰*

To implement sustainable public procurement in Mauritius, the Evaluation and Qualification Criteria have been developed with sustainability considerations across life cycle. For bids that have passed the minimum qualifications (Prequalification procedure), the technical evaluation criteria will need to be satisfied by the products.

The evaluation criteria will take account of:

- (a) the price
- (b) weighted scoring mechanism with certain points given to the sustainability criteria

The present evaluation process adopted under the PPA 2006 has features which reflect elements of life cycle costing as well as preference for indigenous producers. This has been discussed in the following section.

2.5.2 Evaluation Process under PPA 2006

According to the PPA, 2006, the evaluation criteria present in the standard bidding documents for 'goods' helps the procurer in selecting the 'lowest evaluated substantially responsive bids'.

In the sequence of tasks, the financial proposals of only those bidders are considered who are responsive to the technical evaluation. The financial proposals are evaluated by the public body after a public announcement of the results of the technical evaluation.

Under the SPP process the technical evaluation shall consider the verification of SPP requirement definitions stated. Bid evaluation will determine which supplier(s) win the contract and how sustainable the contract will actually be in practice. This stage therefore needs to ensure transparency which is already a part of the present evaluation process

During the examination of bids, the bidder may need to provide clarification to the public body to facilitate evaluation.

¹⁰ Adopted from National Action Plan on Sustainable Public Procurement - Mauritius

2.6 Framework agreements

These find mention in the National Action Plan on Sustainable Public Procurement (SPP) for Mauritius (2011- 2015), and subsequently included as an amendment (in 2013) in the PPA 2006 which is of relevance in implementing SPP. A framework agreement is an “umbrella agreement” that sets out terms (on pricing, quality and quantity) under which individual contracts may be prepared throughout the agreement period¹¹. They are usually used when procuring agencies know they will face a constant or repeated need for a particular product or service over a period of time, but are unsure of the extent or frequency. Thus, it has direct applicability to the five target products - office supplies, IT equipment, cleaning products and services, furniture and passenger cars. The advantages apply to both bidders and procurers. Bidders are assured of regular business, and procurers could expect greater number of bidders (higher competition due to attractiveness of regular business). This increases chances of procuring sustainable products at the best available price. Furthermore, it eliminates the bureaucratic hassle of individual agencies procuring small volumes several times, in addition to saving time and money.

3. Institutional Enablers for Sustainable Public Procurement (SPP) in Mauritius

The Government of Mauritius recognizes that procurement decisions by public bodies have inherent social, public health, environmental and economic impacts both locally and globally on an immediate and long-term basis. Towards this end, they have used several regulatory and non-regulatory drivers, pilot projects, policies and strategies to stimulate Sustainable Public Procurement in the country. This section elaborates on some of these initiatives taken by the Govt. of Mauritius that stimulates Sustainable Public Procurement on a holistic basis.

3.1 “Maurice Ile Durable” (MID) Policy, Strategy and Action Plan

Maurice Ile Durable (MID) was announced as a concept by the Prime Minister of Mauritius, Dr. The Honourable Navinchandra Ramgoolam in 2008. Triggered by the global energy crisis, MID has now been expanded to include sustainable growth strategy of the country. The MID now aims to facilitate economic growth that acknowledges the limitations of the natural resource availability, embraces green economy, with empowerment of it population and striving towards equitable distribution of wealth; thus nurturing a vision for Mauritius to become a model of sustainable development.

In order to coordinate the “Maurice Ile Durable” (MID) project from a more holistic perspective, harmonize efforts in the MID endeavour, and look into all aspects of sustainability, Commission on Maurice Ile Durable (MID Commission) was initiated in 2011. The MID Commission operates under the aegis of the Prime Minister’s Office in collaboration with the Ministry of Environment and Sustainable Development and other stakeholders. The MID Commission developed the ‘MID Policy, Strategy and Action Plan’

¹¹ Usually a maximum of 4 years (Source: National Action Plan on Sustainable Public Procurement (SPP) for Mauritius (2011- 2015))

which has recently received the acceptance of the Cabinet. The MID Policy, Strategy and Action Plan has identified many projects/activities which would be implemented in the short, medium and long terms to bring coherence and to enhance existing activities by introducing new ideas for better sustainable development. SPP is one of the key strategies recognized by this document. MID recognizes Sustainable Public and Private Procurement in the country as a key strategy towards greening of the economy and has proposed actions towards operationalization of SPP.

3.2 National Programme on Sustainable Consumption and Production (2008 - 2013)

The overall objective of the National Programme on Sustainable Consumption and Production is to change energy consumption patterns, encourage technological shifts and behavioural change, increase resource efficiency, change consumption patterns and increase the demand and supply of sustainable products and services in the market. The Programme was approved by the Cabinet in August 2008. The Programme also is aimed at greening the economy through a number of projects. One of the projects identified under this Programme and accorded high priority is Sustainable Government Procurement.

The Programme also identified the development of a National Eco-Labeling framework as one of the projects. Mauritius Standard Bureau (MSB)¹² in collaboration with MoESD is setting up an Environment Friendly Label (EFL) for goods and services. TOR on the development of an Eco-labelling scheme for local products and services in Mauritius has been finalized.¹³

Inter-linkages can be drawn between SPP and the Mauritian Ecolabelling Framework as shown in **Box 1**. Collaboration of these two schemes on their technical specifications may lead to progress of the economy on the path of sustainable development.

¹²The Mauritius Standards Bureau (MSB) is a corporate body which has been set up under the Mauritius Standards Bureau Act 1993. The Bureau is responsible for standardization, quality assurance, testing and metrology. MSB operates a certification marking scheme for products and a national management system certification scheme (ISO 9001, ISO 14001, ISO 27001, ISO 22000, and HACCP).

¹³Mid Term Review of the National Programme on Sustainable Consumption and Production (SCP); MoESD; February 2012

Box 1: Inter-linkages between SPP and Mauritian Ecolabelling framework

- *The technical specifications under Sustainability Criteria of SPP can be mapped to the certification criteria of the ecolabelling framework. This will help in maintaining uniformity on a macro-economic basis thus stimulating the acceptance of both the schemes by the stakeholders.*
- *During the evaluation and examination phase of SPP process, the certification by Mauritian ecolabel can be used as a verification tool for technical specifications.*

3.3 National Action Plan on SPP for Mauritius (2011-2015)

The Procurement Policy Office (PPO), under the Ministry of Finance and Economic Development, has been identified as the enabler for implementation of the SPP project. The PPO developed the 'National Action Plan on Sustainable Public Procurement for Mauritius' in July 2011. The Cabinet approved the Action Plan in November 2011 and contextualised it the MID. The National Action Plan for Mauritius promotes sustainable public procurement in accordance with Government's policy statement and in the following five themes: People; Policy, Strategy and Communication; Procurement Process; Supplier Engagement; and Monitoring and Reporting. The following seven products/services have been selected as the focus products: **1) Paper and Printing; 2) IT Devices; 3) Cleaning Products and Services; 4) Office and Classroom Furniture; 5) Vehicles; 6) Food and Catering Services and 7) Construction work.** The Capacity building of procurement officers has been identified as a crucial step for the successful implementation of the action plan.

3.4 Solid Waste Management

With the vision for "an efficient and sustainable management of solid wastes", the Ministry of Local Government and Outer Islands set up the Solid Waste Management (SWM) Department in Mauritius. This public body developed the SWM Strategy (2011-15) as a coordinated and an integrated approach to achieve an effective and cost efficient collection and storage of wastes as well as adequate disposal infrastructures and treatment technologies for sustainable waste disposal.

The strategy recognizes that if waste continues to grow at the present rate, the total amount of waste requiring management and disposal would be around 472,500 Tons by the year 2015. Besides domestic and yard waste, paper and metal has been identified as the key wastes generated in Mauritius. The quantification and characterization of E-waste (electronic waste) is at present being done which has been identified as a task under the SWM strategy.

To mitigate this environmental and societal challenge, a few pilot projects have been initiated. These are briefly described below.

- **Pilot Project on E-waste: Collection and Disposal from select Government Offices**

About 40 tonnes of e-waste presently stored with selected public offices has been identified for collection, dismantling and disposal purposes. An e-waste recycling company has also been identified to carry out these activities. Based on the pilot-project a detailed study will be carried to develop a mechanism for e-waste collection, dismantling and disposal.

- **Pilot Project on Paper Recycling**

This pilot programme aims at collecting the paper wastes (mainly used printing and photocopier paper) generated by few selected public offices for the purpose of recycling. To perform this task effectively, two formal recycling companies have already been authorized by the SWM Department who use this waste paper to manufacture paper boards. This project is currently ongoing and is being studied to understand the cost economic, environmental impacts and other issues related to waste paper collection and recycling.

Inter-linkages can be drawn between SPP and the pilot programmes on solid waste management as shown in **Box 2**.

Box 2: Inter-linkages between SPP and SWM pilot projects

Up-scaling of the pilot projects on e-waste and paper waste will promote SPP in Mauritius as the mechanism to address the end-of-life impacts can be managed. A systematic recycling program can help procurements under SPP by helping introduction of sustainability criteria aimed at management of product disposal.

Also the up-scaling of end-of-life waste management, which itself can be get a boost through SPP, will facilitate the creation of green jobs in the country.

3.5 Facilitation of End-of-Life Disposal of Procured Items in Public Bodies

In the past, the method prescribed for end-of-life disposal of procured goods from public bodies of Mauritius was destruction as prescribed in the Financial Management Manual. Due to this there was no possibility of recycling or recovery of end-of-life products thus invariably leading to disposal as waste. This would result in increasing the environmental burden of the island country. To address this, the Financial Management Manual has been updated in 2012 and provisions for proper practices towards end-of-life disposal of products have been incorporated thus facilitating recycling.

Identification and authorization processes for formal recycling enterprises in the country have already been started for recycling of waste generated from products like electrical and electronic equipment, paper, plastics, batteries and waste oil. These will facilitate the end-of-life goods from the public bodies.

As can be seen from the above discussions there are various initiatives which have been started in Mauritius which are conducive to the uptake of SPP. Some of these are at Policy and Strategy level, while the others are Action level. In order to SPP to succeed there has to be a concerted effort not only at the PPO level but also through the initiatives and involvement of other ministries and government agencies. The present linkage of SPP with the other initiatives in Mauritius can be presented diagrammatically as presented in **Figure 4**.

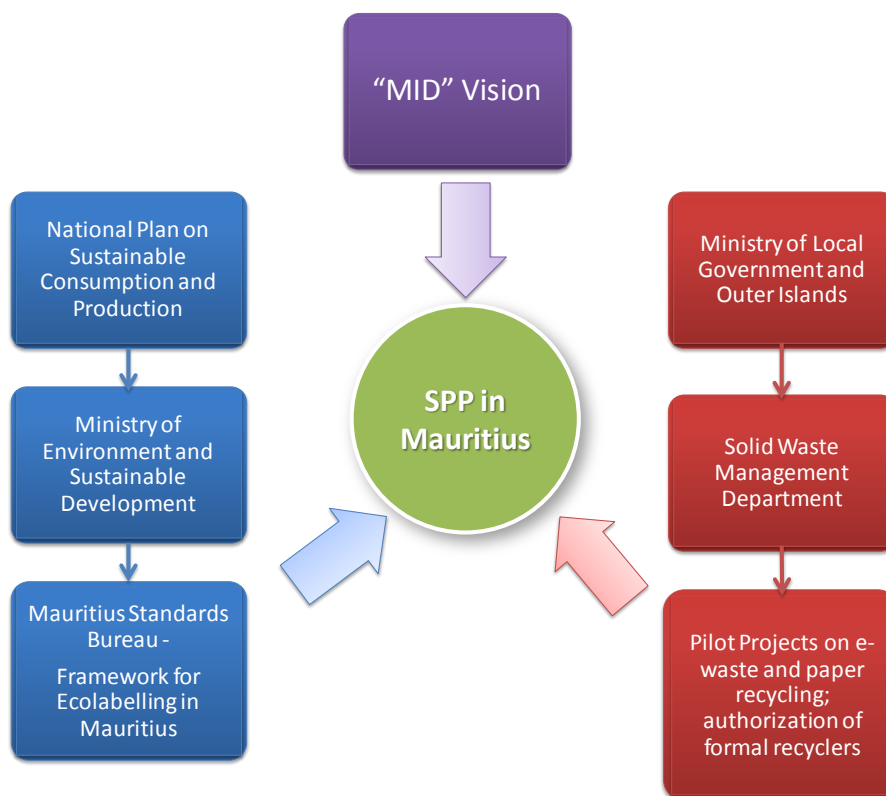


Figure 4: Institutional enablers to stimulate SPP in Mauritius

4. Key Environmental Impacts

As Mauritius is a Small Island Developing State (SIDS)¹⁴, it is more sensitive than non-SIDS nations on certain environmental impact aspects.¹⁵ Like all other SIDS, the remote geographical location and small physical size makes Mauritius ecologically fragile, and limits its capacity to respond to natural and environmental disasters. Limited industrial capacities mean a heavy dependence on imports for most products. This makes Mauritius vulnerable to high transport costs and uncertainty of supplies.

¹⁴Small island developing states (SIDS) are a group of countries that “share similar sustainable development challenges, including small population, limited resources, susceptibility to natural disasters, vulnerability to external shocks and excessive dependence on international trade. Their growth and development is often further stymied by high transportation and communication costs, disproportionately expensive public administration and infrastructure due to their small size, and little to no opportunity to create economies of scale”

¹⁵ SIDS focused Green Economy: An analysis of challenges and opportunities. UNEP, UN DESA and FAO, 2012

The environmental impacts of a sustainable product are identified (and addressed) based on a Life Cycle Assessment (LCA) of the product. LCA is a tool for the systematic evaluation of the environmental impacts of a product or service system through all stages of its life cycle from raw materials extraction to disposal¹⁶. It is an important supporting instrument for aiding decision-making on environmental impacts concerning products or services.

As majority products including furniture are imported into Mauritius from overseas, transportation will account for a significant proportion of the life cycle impacts, when evaluated in the Mauritian context. However the geographical location of the country leaves no choice but to import at the cost of high air and sea transport emissions, unlike the multiple options that the non-island nations of the world can consider in similar situations. Therefore, transportation impacts are excluded from the scope of these guidelines.

A single piece of furniture can be made out of a large variety of materials. Hence, these guidelines address those materials with a large share (by weight) in the final furniture product. The share of material used in furniture manufacture (by weight) reportedly consists of 70w%¹⁷ wood (based material), 15w% padding materials (mainly polyurethane and polyester foam), 10w% metals and 5w% other materials (plastics, textiles, glass, etc)¹⁸. Combining this with the share by value, the focus would be on 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 lifespan of a furniture product, which can vary considerably, plays a major role in the overall environmental impact.

The environmental impact of furniture stems mostly from the *production and treatment of the raw materials* used in the furniture, 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). The key environmental impacts for various materials used for furniture making are as follows:

- Depletion of forests, soil erosion, loss of biodiversity due to illegal logging, unsustainable forest management
- Impact on human health due to formaldehyde emissions used for wood products pressing
- Air pollution from emissions released during manufacturing of metals, plastics and other materials
- Destruction of forest cover due to bauxite, iron ore mining
- Depletion of finite natural resources due to extraction and energy consumption during production of metals and plastics

¹⁶ UNEP website

<http://www.unep.org/resourceefficiency/Consumption/StandardsandLabels/MeasuringSustainability/LifeCycleAssessment/tabid/101348/Default.aspx>

¹⁷w% is the share by weight of a certain material in a piece of furniture

¹⁸ as reported in the Sustainable Procurement Guidelines – Furniture; United Nations Environment Programme, 2009

- High water consumption in the production phase of materials
- Air pollution due to release of hazardous substances used during production, use or disposal
- Impact on human health due to adsorption of chemicals used as additives, stabilizers and flame retardants in plastics, residues in foams
- Impact on water bodies and aquatic life due to effluents from leather tanning, textile dyeing and production of other materials
- Indoor air pollution due to emission of VOCs and hazardous substances such as heavy metals used in coatings, glues, adhesives
- Generation of furniture waste due to a lack of reparability options, low durability, ergonomics or furniture not fit for purpose
- Land pollution due to generation of high quantity of packaging waste

Since transportation is an unavoidable step, in the absence of any furniture manufacturing facilities in Mauritius, this has not been taken into consideration.

A schematic of key environmental impacts across the Life cycle of furniture is presented in **Figure 5**.

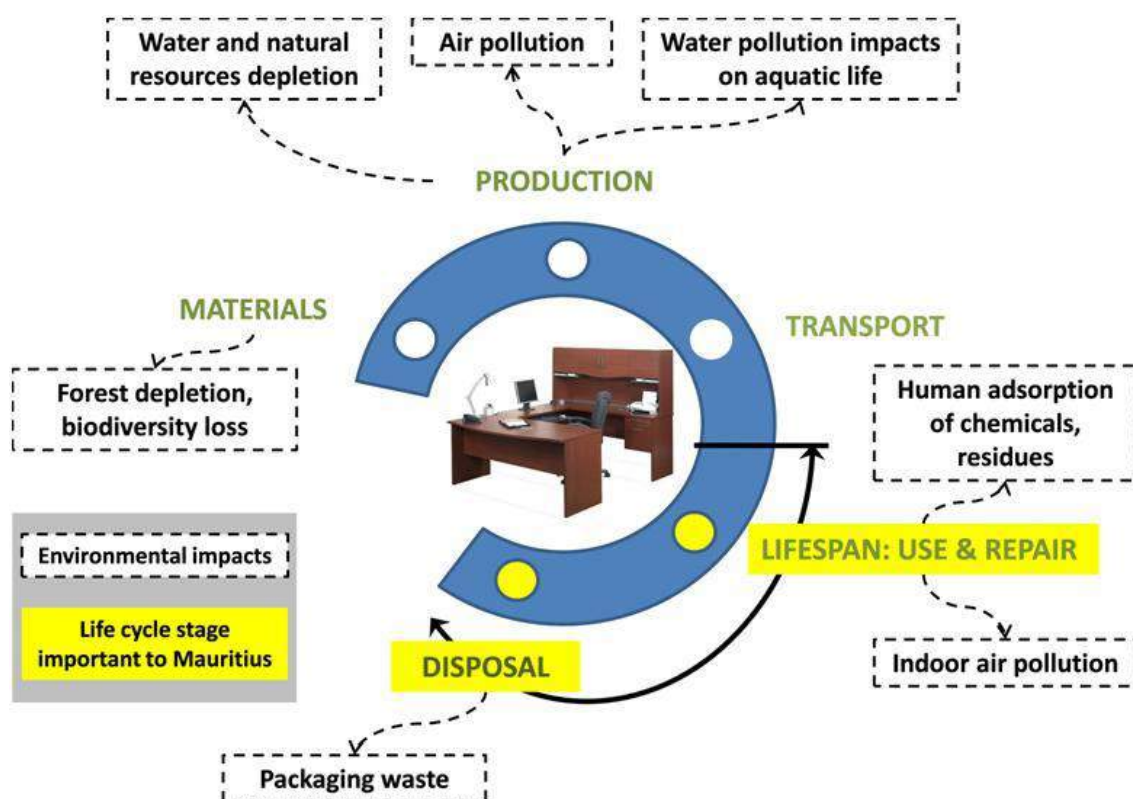


Figure 5: Key Environmental Impacts across the Life Cycle of Furniture

As noted above, the different stages in the life cycle have potential impacts on the environment and these impacts pose various environmental risks. Environmental risk is the probability of an undesirable event arising from human action that is transmitted through the environment. Impacts are concerned with events that are reasonably certain to occur, while risk assessment is concerned with events that may possibly occur. A number of impacts such as air pollution due to conventional energy generation, forest depletion etc could lead to the same risk namely climate change. Similarly a number of activities and their impacts during production of furniture and its allied components pose a risk to human health. Consumption of large quantities of water during production also leads to the risk of water security (See **Figure 6**).

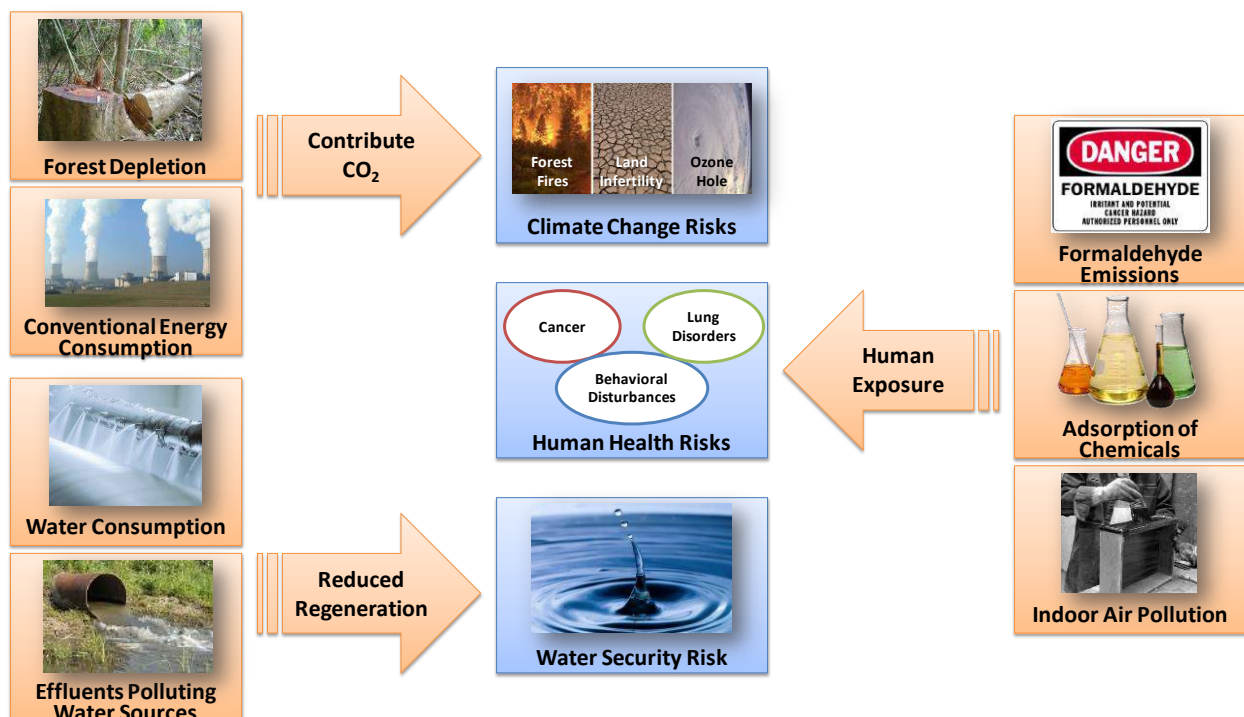


Figure 6: Key Environmental Impacts and their Risks

4.1 Potential environmental impacts of materials used in office furniture

4.1.1 Wood and wood-based products

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

(that contain urea-formaldehyde (UF) resins) to glue together 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.

4.1.2 Metals

The most relevant types of metals for the production of furniture are aluminium, steel (mainly stainless steel) and iron (especially in outdoor furniture). The most significant impacts related to metal production are:

- Influence on landscape and forests, 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 coating.

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 recycling.

4.1.3 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 such as fossil fuels as a raw material in plastic production and for generation of electricity used for the production process.
- The use of additives such as stabilizers, plasticizers or flame retardants with potential of being adsorbed by human bodies causing behavioral disturbances and liver effects
- The release of hazardous substances such as dioxins during production and disposal of plastic 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.

4.1.4 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
- Effluents 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.

4.1.5 Padding materials

Padding materials are mainly polyurethane foams (PUR-foams) and latex foams used in upholstered furniture as a filling material for seats, backs of chairs, sofas and arm rests. The most important environmental aspects which can be tackled are:

- Emissions and effluents from use of hazardous substances in the production process
- Presence of hazardous residues in the foams with health impacts
- Durability of the final product
- Use of raw materials

4.1.6 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

4.1.7 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 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 key issue associated with the use of adhesives is 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 minimize 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.

4.1.8 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. This assumes special importance for Mauritius in light of its limited capacities to dispose wastes.

4.1.9 Use and disposal of furniture

The amount and composition of waste originating from furniture depend on the following:

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

'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.

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

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 setup of a take-back system for all types of furniture. Its effectiveness would additionally depend on the recycling options available to suppliers regionally.

4.2 Reducing the key environmental impacts

The table 1 summarises the main environmental impacts caused during the whole lifecycle of furniture as described above, and indicates the focus of measures to address these impacts

Table 1- Key environmental impacts of office furniture

#	Impact	SPP Approach
1.	Depletion of forests, soil erosion, loss of biodiversity due to illegal logging, unsustainable forest management	Procure legal timber and timber from sustainably managed forests
2.	Impact on human health due to formaldehyde emissions used for wood products pressing	Avoid certain hazardous substances in materials production
3.	Air pollution from emissions released during metal manufacturing	
4.	Destruction of forest cover, soil erosion, loss of biodiversity due to bauxite, iron ore mining	Obtain raw materials from sustainably managed mines
5.	Depletion of finite natural resources due to extraction and energy consumption during production of metals and plastics	Use materials made partly or totally from recycled materials and/or renewable materials (such as wood)
6.	High water consumption in the production phase of materials	
7.	Air pollution due to release of hazardous substances used during production, use or disposal	Avoid certain hazardous substances in materials production and surface treatment
8.	Impact on human health due to adsorption of chemicals used as additives, stabilizers	

#	Impact	SPP Approach
	and flame retardants in plastics, residues in foams	
9.	Impact on water bodies and aquatic life due to effluents from leather tanning, textile dyeing and production of other materials	Obtain materials for furniture from sustainably managed industries
10.	Indoor air pollution due to emission of VOCs and hazardous substances such as heavy metals used in coatings, glues, adhesives	Limit the organic solvent content and VOC emissions in products, adhesives and surface treatment substances
11.	Generation of furniture waste due to a lack of reparability options, low durability, ergonomics or furniture not fit for purpose	Procure durable, fit for use, ergonomic, easy to disassemble, repairable and recyclable furniture
12.	Land pollution due to generation of high quantity of packaging waste	Ensure recyclability and separability of packaging materials and furniture parts

5. Key Social Considerations

The social considerations applied to any business activity or process originate from international conventions and instruments developed mainly by International Labour Organization and United Nations. The social considerations are related to the ethical treatment of workers engaged in the business and the communities impacted by raw material sourcing.

The following practices are included under social considerations for workers:

1. Promoting fair treatment, non-discrimination, and equal opportunity of workers¹⁹
2. Establishing, maintaining and improving worker-management relationship
3. Promoting compliance with national employment and labor laws
4. Protecting workers - including vulnerable categories such as children, migrant workers, workers engaged by third parties, and workers in the client's supply chain
5. Promoting safe and healthy working conditions, and the health of workers.
6. Avoiding use of forced labor and child labor

¹⁹Non-discrimination and equal opportunity refer to avoid basing employment decisions on parameters such as gender, race, nationality, ethnic, social and indigenous origin, religion or belief, disability, age, or sexual orientation.

7. Allowing worker's organizations and collective bargaining to protect worker's rights regarding working conditions and terms of employment
8. Carrying out collective dismissals and retrenchment in a planned manner
9. Providing grievance mechanism to workers to raise workplace concerns

The above social considerations in a procurement process would be applicable to the producer and supplier of a product.

From the perspective of sustainability, impact of business activities on Indigenous People²⁰ is also included. These are social groups with identities that are distinct from mainstream groups in national societies. In many cases, their economic, social, and legal status limits their capacity to defend their rights to, and interests in, lands and natural and cultural resources, and may restrict their ability to participate in and benefit from development. The path towards sustainability promotes avoidance of adverse impacts on Indigenous Peoples and sharing benefits of business activities where they are adversely impacted.

Ethical trading, as defined by the Ethical Trade Initiative²¹, refers to retailers, brands and their suppliers assuming responsibility for improving the conditions of the people who work for them. Most workers employed by supplier firms are based in developing or underdeveloped countries where there are inadequate legal provisions protecting workers' rights of even if such laws exist, they are rarely enforced. Firms that are committed to supporting ethical trade adopt a code of labour conduct that covers social elements like minimum wages, work hours, occupational health and safety, no child labour or gender discrimination etc. Their suppliers globally are supposed to follow this code of conduct.

However, implementing ethical trade is immensely challenging. This is because present day product supply chains are highly complex, spanning several countries worldwide thereby making traceability and accountability at every stage of the supply chain a difficult process. In addition, labour issues themselves stir debate on the whether forcibly halting certain labour practices is justified. *(For e.g. in poor countries, child labourers are important supplementary income providers in their households. Without the informal work that they do, they may be forced to resort to anti-social practices like thievery, begging for alms or drug addiction to overcome or cope with their constraints, thereby leading them into more serious social problems.²²)*

²⁰ As described by International Finance Corporation's Performance Standard 7. There is no universally accepted definition of "Indigenous Peoples." Indigenous Peoples may be referred to in different countries by such terms as "Indigenous ethnic minorities," "aboriginals," "hill tribes," "minority nationalities," "scheduled tribes," "first nations," or "tribal groups."

²¹ <http://www.ethicaltrade.org/about-eti>

²² <http://www.ethicaltrade.org/about-eti>

6. Legislations Impacting Procurement of Office Furniture

6.1 Environmental Regulations

The Environment Protection Act (EPA) 2002 is the main legislative framework to support environmental management in Mauritius. The act has been amended from time to time to be in line with new and emerging challenges, with regard to environmental protection strategies and tools for effective environmental protection and sustainable development. Environmental concerns surrounding economic development have been given greater significance by bringing in Environmental Impact Assessments and Environmental Monitoring tools. Industrial waste audit regulations have also been introduced to encourage industries to self-regulate and adopt cleaner technologies. Since 2010, sustainable development has been included in the portfolio of the Ministry of Environment which empowers the Ministry to make regulations in relation to SCP for:

- the introduction of eco-labelling schemes for products
- carrying out cleaner production opportunity assessments in industry
- the introduction of producer and importer responsibility

Mauritius has been actively pursuing the path of Sustainable Development, with the Maurice Ile Durable (MID) Policy and Strategy Action Plan having been recently approved. Of the four MID Priority Programmes, three are expected to have a direct or indirect impact on product sustainability:

- Energy Conservation and Renewables
- Cleaner, Greener and Pollution Free Mauritius
- Green Economy

As the furniture sourced for general office use under the Public Procurement System in Mauritius is not manufactured within Mauritius, there are no national regulations on environmental factors that could impact the production process for furniture. However, compliance to the national legislations in the country of origin of the product should be ensured. Also there are no environmental issues addressing the importation of furniture.

6.2 Social regulations

Mauritius has three legal provisions on social considerations, which may be applicable if the products sourced are manufactured within the country.

- Employment Relations Act 2008 and Employment Rights Act 2008
- Occupational Safety and Health Act 2005
- Sex discrimination Act 2002

If local manufacturers bid for a particular product, they shall be required to adhere to these laws, unlike international manufacturers for whom these laws shall not apply. For international bidders, social laws in the country of origin would apply.

7. Framework for developing Sustainability Criteria

7.1 Background

In order to operationalize the **National Action Plan on Sustainable Public Procurement for Mauritius** there is a need for a structured approach. During the operationalization process, it is important to define how the product sustainability will be addressed. Sustainability, as is known, lies in the interplay of environmental quality, economic vitality and social equity and therefore the sustainability criteria should also be encompassing these elements of sustainability. Since the goods and service which will be addressed under this Action Plan will be growing in number and will be of diverse type there is need to evolve or adapt a framework of sustainability criteria which can then be applied across the products to be targeted under the SPP mechanism.

For this a structured and logical approach is required that has the potential for assessing the product sustainability addressing commonality across the elements of sustainability being assessed while being able to maintain the individuality that arises due to the basic nature of the product life cycle. A progressive and hierarchical system of criteria would be the best suited for such an approach.

Sustainability criteria sets have been defined by various organizations and even at country level or multi country level as in the global procurement system developed for the UN system of procurements. But the systems themselves vary in their approach and criteria sets prescribed for similar products. For a country like Mauritius, which, because of its SIDS status, has to use a framework for criteria development that is flexible and adaptable particularly considering that the source of most products in the country is import from multiple countries across the world. A study carried out by the Green Purchasing Network India (GPNI) to develop an internationally coordinated and harmonized system provides such a framework.

The following section presents the key elements of the Framework developed towards the standardized assessment criteria and its applicability to the designated product being studied.

7.2 GPNI's Common Core Criteria²³

In order to develop the framework, GPNI reviewed multiple ecolabels (over 150) from all across the world in an analytical framework to identify a set of common core criteria applicable irrespective of product categories. The common criteria set comprises of eight Common Core Criteria to assess the sustainability performance of products across life cycle. **Figure 7** illustrates GPNI's 8 Common Core Criteria.

²³ The Framework towards Standardized Assessment Criteria for Eco Products and Eco Services was developed by the Green Purchasing Network India (www.gpnindia.org) to propose a framework towards developing harmonized criteria as applicable to products and services.

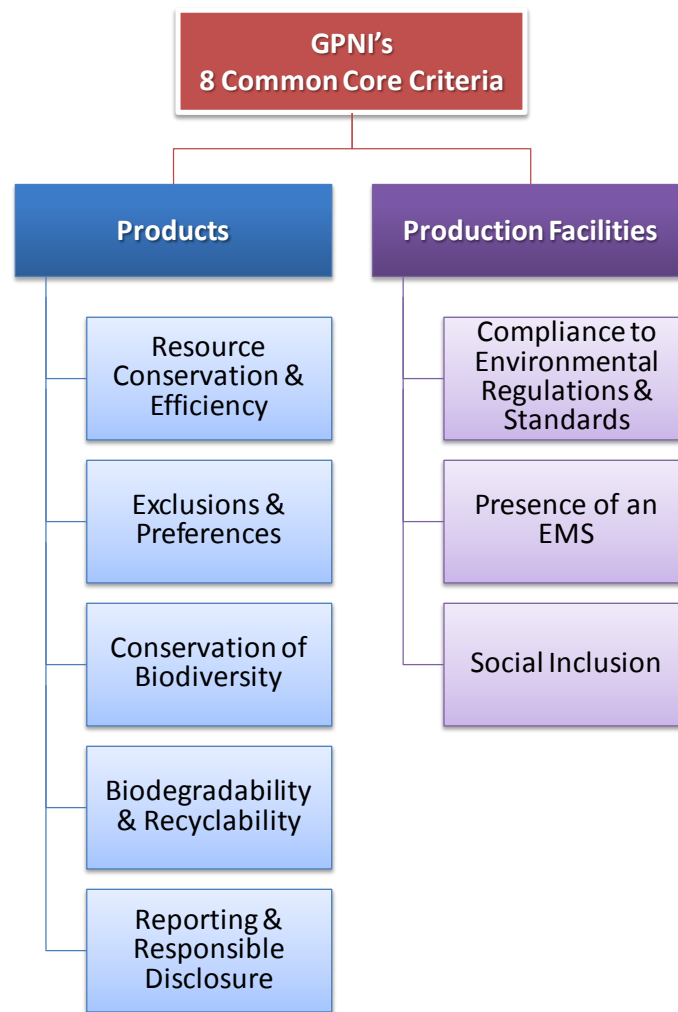


Figure 7: 8 Common Core Criteria proposed by GPN

Table 2 provides a description of 8 Common Core Criteria proposed by GPN.

Table 2: Description of GPN's Common Core Criteria

#	Common Core Criteria	Description
1.	Resource Conservation and Efficiency	Resource Conservation and Efficiency emphasizes on conservation and efficient consumption of resources. Efforts to conserve resources should be demonstrated to come close to the 'benchmarks' by appropriate choices of technology and by practicing 4Rs (Reuse, Recycle, Reduce and Recover)
2.	Exclusions and	Exclusions and Preferences indicate the kinds of substances or technologies that should be or should not

#	Common Core Criteria	Description
	Preferences	be used throughout a life cycle. Exclusion criteria talks about substances and technologies that should not be used due to their adverse environmental impacts or risks. On the other hand, Preferences should be made for environmentally benign and socially acceptable technologies and substances.
3.	Conservation of Biodiversity	Conservation of Biodiversity refers to protection and conservation of regional and global ecological resources. The products or services should not pose risk to local, regional or national biodiversity assets.
4.	Biodegradability and Recyclability	' Biodegradability ' means that the product should be easily decomposable by natural agents like microorganisms present in the environment. Recyclability indicates the potentials of a finished product to get recycled to a maximum extent possible prior to disposal.
5.	Reporting and Responsible Disclosure	Transparency to consumers/customers is very important. Reporting and Responsible Disclosure of products and services indicates disclosure of information to the consumers about product-ingredients, safety related precautions during use, environmental impacts and on disposal.
6.	Compliance to environmental, health and safety regulations	Compliance to environmental, health and safety regulations is one of the basic requirements for certifying products or services. At each stage of life cycle, the product or service needs to conform to the applicable national and international health safety and environmental laws, regulations and standards.
7.	Presence of Environmental Management Systems(EMS)	An Environment Management System, or EMS , is a comprehensive approach of managing environmental issues, integrating environment-oriented thinking into every aspect of business management. Presence of EMS ensures that greenness of a product or service is consistent and not a chance. It also indicates that a continual process of improvement is in place under the directions of top management.
8.	Social Inclusions	Social inclusion includes fair trade, pricing, promotion of local sourcing and practicing work related ethics.

7.3 Relevance and Applicability

The Common Core Criteria can be applied to goods to be procured under the SPP mechanism to address the environmental and social impacts caused during its various life cycle stages. Therefore, it can be used as a basic approach in the Sustainable Public Procurement of Mauritius to define technical specifications for products. Out of 8 Common Core Criteria, the three that are applicable to production facilities can be linked to Prequalification Criteria. The remaining five can be mapped to the Sustainability Criteria of SPP process for each product based on the environmental and social impacts caused during each stage of product's life cycle. This harmonized approach of using Common Core Criteria as a basis to develop Sustainability Criteria for product will ensure consistency and completeness of the SPP process in Mauritius.

In line with GPNI's Common Core Criteria, the Sustainability Criteria for SPP of Office Furniture for office use have been mapped in the following sections.

7.4 Prequalification Criteria

Prequalification Criteria in SPP refers to suppliers' qualification requirements and conformance to social standards. Out of the 8 Common Core Criteria proposed by GPNI, **Table 3** shows the three criteria that can be linked to the Prequalification Criteria for this product:

Table 3: Linking Prequalification Criteria to GPNI's Common Core Criteria

#	GPNI's Common Core Criteria	Prequalification Criteria (examples)
1.	Compliance to Environmental, Health and Safety Regulations	Compliance with environmental legislations
2.	Social Inclusions	Adherence to national social regulations and standards

7.5 Sustainability Criteria

Besides the three common core criteria mentioned above, the other five common core criteria will have relevance to the Sustainability Criteria being proposed for this product. **Table 4** presents this for the category – Office Furniture.

**Table 4: Linking Sustainability Criteria to GPNi's Common Core Criteria
- Office Furniture**

Sustainability Criteria - Office Furniture	GPNi's Common Core Criteria				
	Resource Conservation and Efficiency	Exclusions and Preferences	Conservation of Biodiversity	Biodegradability and Recyclability	Reporting and Responsible Disclosure
Wood and wood-based materials – Legally logged wood			✓		
<i>Wood and wood-based materials - Sustainably logged wood</i>	✓				
Metal content	✓				
Plastic parts				✓	
Foams and padding materials		✓			
Adhesives and glues		✓			
Surface coating of wood, plastic and/or metal parts		✓			
Textiles used in furniture		✓			
Warranty and Durability	✓				
Quality, reparability, fitness for use and ergonomics	✓				
Maintenance	✓				
Packaging		✓			

8. Office Furniture – Key Sustainability Criteria

8.1 Procurement Planning

For procurement of furniture, an analysis should be carried out at this stage to identify the need for furniture. The need assessment could include the kinds of furniture required, purpose for procuring each kind, and volumes required. The analysis could explore possibilities of procuring kinds of furniture which have higher wood content (in case the furniture conventionally procured was not made predominantly of wood) as wood is expected to be legally logged or sustainably logged thus having minimum damage to the environment and perform environmentally better at disposal stage. They are easier to verify for environmental compliance. At this stage the possibility of consolidating the furniture requirements of various public bodies could also be carried out so that furniture procurement could be done under the Framework Agreement. Such an approach gives public bodies the opportunity to get better ‘value for money’ and also provides assurance to the supplier(s) to develop its business in way to meet the requirements of the SPP.

The procurement planning step should also consider the market readiness to deliver. For furniture readily available there are numerous technical considerations that must be given consideration. Thus, procurement planning may require engagement with furniture suppliers in a transparent dialogue.

8.2 Developing the criteria – Sources and rationale

Furniture that can be identified as a sustainable product has been recognised by various organisations / agencies through development of criteria. The criteria included in this sheet are adapted from the UNEP Sustainable Procurement Guidelines for Office Furniture, which in turn have been drawn from criteria of three Type I²⁴ ecolabels – Blue Angel and the Nordic Swan. The reason being that ecolabels are a valuable source of independently developed environmental performance criteria (Section 11 explains about ecolabels for Furniture). It may be noted that no ecolabel could be identified in Mauritius or East Africa.

In order to ensure coverage of all furniture-related environmental issues, a comparison was made between furniture criteria of three sources: UNEP, the European Commission and Blue Angel. The Section 8.4 presents a combination of criteria from these sources, suitably adapted for application to Mauritius.

8.3 Verification methods

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

²⁴ Type I labels are a voluntary, multiple-criteria based, third party program that awards a license that authorises the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based on life cycle considerations.

http://www.globalecolabelling.net/what_is_ecolabelling/index.htm

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 manufacturers will be necessary. This includes self-declarations, lists of products used in material production and treatment, as well as product safety sheets.

Ecolabel criteria normally comprise, on the one hand, of product specific criteria and, on the other hand, the assessment or verification methods aimed at checking compliance with these criteria. Where procurement criteria are based on ecolabels, the easiest way to prove compliance will be through the possession of the relevant ecolabel (**Section 11** describes Ecolabels in detail). However, even if the product is not ecolabelled, the procurement/contracting authority must allow verification to be done via other means of proof, and this must be made explicit in the tender documents.

Bidders must therefore be given the opportunity to present other means of proof (that the product meets the specifications), such as declarations by the producer or by the supplier, technical and/or product safety sheets; calculation formulas, laboratory tests results, etc.

8.4 Sustainability criteria and verification guidance

This section presents the various possible sustainability criteria which may be considered as part of the SPP.

8.4.1 Prequalification Criteria

The prequalification sustainability criteria that suppliers should meet for the product are given in **Table 5**.

Table 5 – Prequalification Sustainability Criteria - Office Furniture

#	Sustainability Criteria - Prequalification	Verification Guidance
1.	<p>Compliance with environmental legislation</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 s/he is established or with those of Mauritius</p>	<p>Bidders must provide a declaration that they meet this criterion.</p> <p>Upon request, they may be asked to provide documentary proof to support this declaration</p>
2.	<p>Adherence to national social regulations and standards</p> <p>Adherence to national social regulations in Mauritius needs to be confirmed. The following are the basic requirements:</p>	<p>The bidder is required to submit appropriate proof that these requirements have been met, such as a written self-commitment / declaration that</p>

#	Sustainability Criteria - Prequalification	Verification Guidance
	<ul style="list-style-type: none"> • Employment Relations Act 2008 and Employment Rights Act 2008 • Occupational Safety and Health Act 2005 • Sex discrimination Act 2002 	the requirements are met, together with documented support of the implementation and monitoring of measures

8.4.2 Requirement Definition

The sustainability criteria required from suppliers based on which they would be evaluated during bidding are given in **Table 6**.

Table 6: Sustainability Criteria – Office Furniture

Sl. No.	Sustainability Criteria	Requirement Definition	Verification Guidance
<i>I. Basic Criteria</i>			
1.	Wood and wood-based materials - Legally logged wood	All wood and wood-based materials (including solid, laminated, veneer and wood used for the production of plywood) shall come from legally sourced timber.	<p>The legal origin of wood can be demonstrated with a tracing system being in place. These voluntary systems may be 3rd party certified, often as part of ISO 9000 and/or ISO 14000 or EMAS management system.</p> <p>For products which do not carry one of these labels verification must be provided by a credible third party that the claimed percentage of timber meets the standards. Certificates of chain of custody for the wood fibres certified as FSC²⁵, PEFC²⁶ or any other sustainable forest management standard</p>

²⁵ FSC (Forest Stewardship Council): <http://www.fsc.org/en/>

²⁶ PEFC (Programme for the Endorsement of Forest Certification): <http://www.pefc.org/internet/html>

Sl. No.	Sustainability Criteria	Requirement Definition	Verification Guidance
			<p>where the percentage of certified wood is indicated, will be accepted as proof of compliance for that percentage.</p> <p>Products carrying the Blaue Engel (German ecolabel), the Nordic Swan or any other equivalent type 1 ecolabel will be deemed to comply.</p>
2.	Plastic parts	All plastic parts \geq 50g shall be marked for recycling according to ISO 11469 or equivalent and must not contain additions of other materials that may hinder their recycling	<p>Bidders must provide a description of the plastic materials that are present and the quantities used, the way in which they are labelled and how they are attached to one another or to other materials.</p> <p>Products carrying a Type I ecolabel fulfilling the selected criteria will be deemed to comply</p>
3.	Warranty and Durability	Minimum 3 years of warranty and availability of replacement parts / pieces	Bidders must provide appropriate documentation to indicate period the complete furniture is under warranty; further guarantee on availability of parts / pieces need be stated.
4.	Quality, reparability, fitness for use and ergonomics	Furniture pieces must meet ISO or equivalent standards regarding serviceability (e.g. safety, abrasion resistance, tensile strength, light fastness, rub fastness, deformation by compression, ergonomics).	Bidders must provide the appropriate documentation to demonstrate compliance with these standards
5.	Maintenance	Cleaning furniture pieces	Bidders must provide

Sl. No.	Sustainability Criteria	Requirement Definition	Verification Guidance
		must be possible without the use of products containing organic solvents. For this reason, the product should be made of materials that can be easily separated for recycling purposes	information regarding cleaning for maintenance purpose
6.	Packaging	<p>The packaging paper (for product and consumables) does not contain PVC or other chlorinated plastics.</p> <p>The packaging materials 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.</p> <p>The cardboard packaging consists of 80% recycled material.</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.
<i>II. Advanced Criteria</i>			
7.	Wood and wood-based materials - Sustainably logged wood	At least 70% of the virgin wood or wood-based materials (including solid, laminated, veneer and wood used for the production of plywood) shall come from forests that are certified as being managed so as to implement the principles and measures aimed at ensuring legal and sustainable forest management.	Certificates of chain of custody for the wood fibres certified as FSC, PEFC or any other sustainable forest management standard will be accepted as proof of compliance. Any other appropriate means of proof, such as a technical dossier of the manufacturer or a test report from a recognised body will also be accepted.
8.	Metal content	At least 20% of the aluminium and/or steel used	Any appropriate means of proof demonstrating that the

Sl. No.	Sustainability Criteria	Requirement Definition	Verification Guidance
		for the production of the aluminium and/or steel shall be recycled (second fusion)	criteria are met will be accepted, such as a technical dossier from the manufacturer, or a declaration from the manufacturer of aluminium and/or steel.
9.	Foams and padding materials	The padding material used for the furniture meet the ecological criteria related to the product itself and production processes as stated in the European Ecolabel or equivalent	Any appropriate means of proof demonstrating that the criteria are met will be accepted, such as a technical dossier from the manufacturer, or a declaration from the manufacturer of foams and padding materials.
10.	Adhesives and glues	VOC content of adhesives used in the assembly of furniture shall not exceed 10% by weight	Bidders must present a list with all adhesives used in the assembly of furniture and their Material Safety Data Sheet, or equivalent documentation, where the amount of VOCs is displayed, demonstrating compliance with the criteria. 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.
11.	Surface coating of wood, plastic and/or metal parts	The products used for the surface coating shall: Not contain hazardous substances that are	Bidders must present a list with all surface treatment substances used for each Material Safety Data Sheet,

Sl. No.	Sustainability Criteria	Requirement Definition	Verification Guidance
		<p>classified as carcinogenic, harmful to the reproductive system, mutagenic, allergenic when inhaled or harmful to the environment according to national or international classification standards</p> <p>Not contain halogenated organic flame retardants, phthalates, aziridine and polyaziridines or lead, cadmium, chrome, mercury and their compounds</p> <p>Not contain heavy metals</p> <p>Not contain more than 5% by weight of VOCs</p>	<p>or equivalent documentation, though which compliance with the criteria can be established.</p> <p>Products carrying the Nordic Swan (if they comply with the criteria R17 of the ecolabel) or the Blaue Engel (German 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>
12.	Textiles used in furniture	The textile materials used for the furniture meet the ecological criteria relating to the product itself and production processes as defined by the Oeko-Tex Standard 100 or equivalent	Any 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

8.5 Implementation notes

8.5.1 On Prequalification

Compliance with environmental legislation

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

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.

8.5.2 On Requirement definitions

Requirement or evaluation criteria

If the purchasing/contracting authority is unsure about the price and availability of products meeting the requirement definitions in the local market, the above Specifications can be used instead as Award/Evaluation criteria. Where a points based evaluation system is used, these criteria could, for example, be given a 15% weighting in the final evaluation.

Environmentally-friendly foams and padding materials

Environmentally-friendly textiles

Other relevant regional ecolabels that fulfill the technical specifications for the different raw materials may be accepted as evidence. It must be checked that they are a Type I ecolabel, according to ISO 14024, and ensure they demonstrate compliance with the criteria presented here.

Plastic parts (recyclability and additives)

Surface coating of wood, plastic and/or metal parts

On standards for chemical usage (ban or limitation) in raw material production, the products must adhere to national laws, regulations, directives on hazardous waste, dangerous or prohibited chemicals or dangerous substances, their classification, packaging, labeling and use.

Durability, Quality, reparability, fitness for use and ergonomics

Quality standards that either refer to or are in line with international or European standards such as ISO and EN standards are usually in place at the national/federal level of each country. Smaller sized companies might be more familiar with the national standards than with European or international standards. The contracting authority will need to identify the appropriate standard to refer to.

Recognised bodies

Recognised bodies are test and calibration laboratories and certification and inspection bodies which comply with applicable regional, national and/or international standards. In Mauritius the bodies should seek approval of Mauritius Standards Bureau.

References to labels in Verification

For using ecolabels for verification of compliance, Type I ecolabel, according to ISO 14024 should be used. Also the acceptability of the ecolabel in Mauritius should be ascertained. It should be ensured that the ecolabel demonstrate compliance with the criteria presented here. For more information regarding ecolabels available globally, please consult the website of the Global Ecolabelling Network (GEN): <http://www.globalecolabelling.net>.

8.5.3 On Evaluation

If the market availability of products meeting the Specifications is less certain, the procurer may wish to use certain specifications as Evaluation/Award criteria instead, indicating that such characteristics are preferred but not required. It is advisable to do some small market research before procurement.

Contracting authorities will have to indicate in the contract notice and tender documents how many additional points will be awarded for each award criterion. Environmental award criteria should, altogether, account for at least 10 to 15 % of the total points available.

9. Evaluation of Criteria

The sustainability criteria have been assigned weights totalling to 100. As integration of sustainability in the procurement process is at a nascent stage, the weighting has been broadly distributed as 70 for basic and 30 for advanced sustainability criteria. These weighting have been further distributed among each criterion based on the following rules:

- i. If impacts/risks specific to use and disposal phase in Mauritius are high, then higher will be the weighting assigned
- ii. If impacts/risks mainly occur outside Mauritius, then lower will be the weighting assigned
- iii. If it is currently difficult to verify scale of impact/risk, then lower will be the weighting assigned
- iv. If verification tool for the criterion is currently not available in Mauritius, then lower will be the weighting assigned

Using the above rules, the weighting for sustainability criteria for office furniture is given in **Table 7**.

Table 7: Weighting for Sustainability Criteria

Sustainability Criteria			Weights
Basic	1.	Wood and wood-based materials - Legally logged wood	20

	2.	Plastic parts	5
	3.	Warranty and Durability	15
	4.	Quality, reparability, fitness for use and ergonomics	15
	5.	Maintenance	10
	6.	Packaging	5
Advanced	7.	Wood and wood-based materials - Sustainably logged wood	7
	8.	Metal content	5
	9.	Foams and padding materials	5
	10.	Adhesives and glues	5
	11.	Surface coating of wood, plastic and/or metal parts	3
	12.	Textiles used in furniture	5
Total Weighting			100

The rating scheme for each sustainability criterion has been derived from the requirement definition and verification mechanism defined in the preceding sections.

The rating scheme is 0, 2, 4, 6, 8 and 10 indication nil compliance to full compliance as per the sustainability criterion. The condition under which a specific rating will be assigned to a bidder for a sustainability criterion is specified in **Table 8**.

Table 8: Rating Scheme for Sustainability Criteria

Sustainability Criteria		Rating Scheme					
		10	8	6	4	2	0
I. Basic Criteria							
1.	Wood and wood-based materials - Legally logged wood	Legally sourced timber	NA	NA	NA	NA	Not legally sourced timber
2.	Plastic parts	Plastic parts \geq 50g are marked for recycling according to ISO 11469 or equivalent; and does not contain additions that hinder recycling	NA	NA	NA	NA	Plastic parts \geq 50g are marked for recycling according to ISO 11469 or equivalent; <u>or</u> contain additions that hinder recycling
3.	Warranty and Durability	5 years of warranty and availability of replacement parts / pieces	NA	4 years of warranty and availability of replacement parts / pieces		3 years of warranty and availability of replacement parts / pieces	No warranty available
4.	Quality, reparability, fitness for use and ergonomics	Furniture pieces meet ISO or equivalent standards regarding serviceability	NA	NA	NA	NA	Furniture pieces do not meet ISO or equivalent standards regarding serviceability
5.	Maintenance	Materials can be easily separated for recycling; and Furniture does not require organic solvents for cleaning	Does not require organic solvents for cleaning	NA	NA	NA	Furniture requires organic solvents for cleaning; and Materials cannot be easily separated for recycling
6.	Packaging	Packaging material complies with	Packaging	Packaging	Packaging	NA	Packaging materials

Sustainability Criteria		Rating Scheme					
		10	8	6	4	2	0
		all the requirements given below: (i) Does not contain PVC or other chlorinated plastics; <u>and</u> (ii) Consists 80% recycled material; <u>and</u> (iii) 80% of packaging by weight readily recyclable or composted; <u>and</u> (iv) Packaging material can be separated into mono-material parts	material complies 3 of the 4 requirements	material complies 2 of the 4 requirements	material complies 1 of the 4 requirements		does not comply with any of the 4 four requirements of the criteria
II. Advanced Criteria							
7.	Wood and wood-based materials - Sustainably logged wood	95-100% of the virgin wood or wood-based materials from sustainably managed forests	90-95% of the virgin wood or wood-based materials from sustainably managed forests	80-90% of the virgin wood or wood-based materials from sustainably managed forests	70-80% of the virgin wood or wood-based materials from sustainably managed forests	70% of the virgin wood or wood-based materials from sustainably managed forests	Virgin wood or wood-based materials not from sustainably managed forests
8.	Metal content	>50% of the aluminum and/or steel used for the production of the aluminum and/or steel is recycled	40-50% of the aluminum and/or steel used for the production of the aluminum and/or steel is recycled	30-40% of the aluminum and/or steel used for the production of the aluminum and/or steel is recycled	20-30% of the aluminum and/or steel used for the production of the aluminum and/or steel is recycled	20% of the aluminum and/or steel used for the production of the aluminum and/or steel is recycled	Aluminum and/or steel used for the production of the aluminum and/or steel is not recycled
9.	Foams and padding materials	Meet the ecological criteria related to the product itself and production processes as per	NA	NA	NA	NA	Do not meet the ecological criteria related to the product itself and production processes as per European

Sustainability Criteria		Rating Scheme					
		10	8	6	4	2	0
		European Ecolabel or equivalent					Ecolabel or equivalent
10.	Adhesives and glues	VOC content of adhesives is 0% by weight	VOC content of adhesives does not exceed 1-5% by weight	VOC content of adhesives does not exceed 5-8% by weight	VOC content of adhesives does not exceed 8-10% by weight	VOC content of adhesives does not exceed 10% by weight	VOC content of adhesives exceeds 10% by weight
11.	Surface coating of wood, plastic and/or metal parts	Surface coating does not contain the following: (i) hazardous substances classified as carcinogenic, harmful to the reproductive system, mutagenic, allergenic when inhaled or harmful to the environment according to national or international classification standards (ii) halogenated organic flame retardants, phthalates, aziridine and polyaziridines or lead, cadmium, chrome, mercury and their compounds (iii) heavy metals (iv) more than 5% by weight of VOCs	Surface coating does not contain 3 of the 4 items listed in the criteria	Surface coating does not contain 2 of the 4 items listed in the criteria	Surface coating does not contain 1 of the 4 items listed in the criteria	NA	Surface coating contain all the items listed in the criteria
12.	Textiles used in furniture	Meet the ecological criteria relating to the product itself and production processes as defined by the Oeko-Tex Standard 100 or equivalent					Does not meet the ecological criteria relating to the product itself and production processes as defined by the Oeko-Tex Standard 100 or equivalent

The score for each criterion is a product of Weighting x Rating. The sum of scores for all the criteria will be the score achieved by the bidder for sustainability criteria.

10. Relevant Ecolabels

There are a wide variety of labels available and also several classification schemes for labels defined by the International Standards Organisation (ISO) Type I, Type II²⁷ and Type III²⁸ labels. **Type I labels**²⁹ are the most useful group for procurers because they 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.

There are several established ecolabels for furniture, but none cover all the requirement definitions listed in Section 8.0. Although the criteria underlying the labels are similar to a certain extent, there exist important differences between them:

- Some labels focus on furniture as a whole i.e. they define criteria to address all relevant environmental aspects along the lifecycle (Type I label): E.g. Nordic Swan ecolabel of the Nordic countries, Stichting Milieukeur of Netherlands, NF Environment of France, Ecologo of Canada, the European ecolabel etc. They may differ mainly on limit values of specific emissions from the production phase of raw materials used, their coverage of materials (e.g. plastic, metal, textiles, coatings, foam, etc) and specifications for them, and the criteria for the product supplied (e.g. durability, take-back schemes). Furthermore, classification schemes for harmful chemicals are region-specific.
- Some labels concentrate on furniture made chiefly from one material (E.g. the German label Blue Angel only certifies furniture where more than 50 percent of it is made from wood or wood-based; Thai Green Label exclusively certifies steel furniture i.e. minimum 70 percent steel). These too may differ on the points mentioned in the above bullet
- Other labels specialize in standards-setting and certification for only one input material ("Type I-like" label): E.g. In wood, Forest Stewardship Council (FSC) promotes sustainable forestry; The Oeko Tex Standard 100 is for textile products

²⁷ Type II labels are self-declared environmental claims. They are not independently verified, do not use pre-determined and accepted criteria for reference http://www.globalecolabelling.net/what_is_ecolabelling/index.htm Accessed on 20 June 2013

²⁸ Type III labels are voluntary programs that provide more detailed quantitative information of products. It takes the form of a matrix and similar to declarations of nutritional characteristics of products. A "score" is given for the product for certain environmental impacts, based on LCA methods and by a third party certification agency. http://www.globalecolabelling.net/what_is_ecolabelling/index.htm Accessed on 20 June 2013

²⁹ They are according to ISO 14024 standard. Type I labels are a voluntary, multiple-criteria based, third party program that awards a license that authorises the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based on life cycle considerations. http://www.globalecolabelling.net/what_is_ecolabelling/index.htm Accessed on 20 June 2013.

along the entire textile value chain; The CertiPUR standard is a SHE³⁰ standard for polyurethane foams from the European Association of flexible polyurethane foam blocks manufacturers (EuroPUR).

The number of ecolabelled products and companies for office furniture is relatively low on the whole, compared with that of other product segments like cleaning products. A number of Type I and “Type I like” labels for furniture are presented in **Table 9**. This is only an indicative list comprising popular labels; however there may be labels not listed here which may still meet the requirement specifications detailed in Section 8.0 and which therefore qualify as accepted compliance verification.

Table 9: Ecolabels relevant to Furniture

Name and Website	Region
TYPE I LABELS	
Ecologo http://www.ecologo.org	North America
Stichting Milieukeur http://www.smk.nl/	Europe (Netherlands)
NF Environment http://www.marque-nf.com/	Europe (France)
Nordic Swan http://www.svanen.se	Europe (mainly Scandinavia)
Austrian Ecolabel (Umweltzeichen) http://www.umweltzeichen.at/cms/home233/content.html	Europe (Austria)
Blaue Engel http://www.blauer-engel.de	Europe (Germany)
EcoMark http://www.ecomark.jp/english/	Japan
Good Environmental Choice Australia (GECA) http://www.geca.org.au/	Australia
Thai Green Label http://www.tei.or.th/greenlabel/	Thailand
“TYPE I LIKE” LABELS	
Oeko Tex http://www.oeko-tex.com/	Europe. For textiles only
CertiPUR label of EuroPUR http://www.europur.com/	Europe. For Polyurethane (PU) foams

³⁰Safety, Health and Environment

Forest Stewardship Council (FSC) https://ic.fsc.org/	International. For wood fibres
Programme for the Endorsement of Forest Certification (PEFC) http://www.pefc.org/	International. For wood fibres
Sustainable Forestry Initiative (SFI) http://www.sfiprogram.org/	North America. For wood fibres
Certfor (PEFC label accredited) http://www.certfor.org/	Chile (Latin America). For wood only

11. Information Sources

- UNEP Sustainable Procurement Guidelines for Office Furniture – Background Report; Furniture Product Sheet
- European Commission GPP Training Toolkit – Furniture Background Product Report; Furniture Product Sheet http://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm
- Blue Angel (“Blaue Engel” - the German national ecolabel): <http://www.blauer-engel.de>
Specific criteria sets used:
- RAL-UZ 38: Low-emission Wood Products and Wood-Base Products http://www.blauer-engel.de/en/products_brands/vergabegrundlage.php?id=55
- RAL-UZ 117: Low-Emission Upholstered Furniture http://www.blauer-engel.de/en/products_brands/vergabegrundlage.php?id=128
- Nordic Swan (Scandinavian ecolabel): <http://www.svanen.nu>. Specifically, Furniture and Fitments
<http://www.svanen.se/en/Svanenmarka/Kriterier/Criteria/?productGroupID=28001>
- Legal review for the implementation of Sustainable Public Procurement in Mauritius
- Mauritius Environment Protection (Industrial Waste Audit) Regulations 2008
http://www.gov.mu/portal/sites/legaldb/files/IWA_reg08.pdf
- Mauritius Environment Protection (Standards for Hazardous Waste) Regulations 2001
<http://localgovernment.gov.mu/English/Legislations/Pages/Standards-for-Hazardous-waste-Regulations-2001.aspx>
- Mauritius Dangerous Chemicals Control Act 2004
<http://ecolex.org/ecolex/ledge/view/RecordDetails;DIDPFDSIjsessionid=28F13A2A4D954B5F55140792288DF2AC?id=LEX-FAOC062529&index=documents>
- Mauritius Employment Relations Act 2008

- Mauritius Employment Rights Act 2008
<http://labour.gov.mu/English/Documents/Legislations/Employment%20rights%20acts%202008/employment%20rights%20act%202008.pdf>

12. Additional Guidance

- For more information on environmental labels and the use of environmental labels in the UNprocurement 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).
- Swedish Environmental Management Council's (MSR) procurement criteria. www.msr.se
- Öko-Institut& ICLEI (2007): Study on costs/benefits of Green public procurement in Europe. Available at http://ec.europa.eu/environment/gpp/pdf/eu_recommendations_1.pdf

Annexure 1:

A Generic Comparison of Contents between Mauritian SPP Guidelines and UNEP SPP Guidelines

SPP Guidelines for Mauritius		UNEP SPP Guidelines		Remarks
Sec. Nos.	Title	Sec. Nos.	Title	
1. 1.1. 1.2. 1.3.	Introduction, Scope and Methodology Scope Methodology for Developing SPP Guidelines for Mauritius Structure	1.	Introduction and Scope	Sections 1.2. and 1.3. of Mauritian SPP guidelines do not have equivalent sections in the UNEP guidelines. Section 1.2. talks about the methodology that has been used in developing SPP Guidelines for Mauritius. Section 1.3. provides the differences in structure of Sustainability Criteria on SPP of each product category
2. 2.1. 2.2. 2.3. 2.4. 2.5. 2.6.	Incorporating Sustainability in the Mauritian Procurement System Public Procurement Act (PPA) 2006 Procurement Planning under PPA 2006 Requirement definitions under PPA 2006 Prequalifications under PPA 2006 Evaluation under PPA 2006 -Sustainability Evaluation Criteria -Evaluation Process under PPA 2006 -Evaluation and Qualification Criteria Framework agreements	2.	Incorporating Sustainability in the UN Procurement System Relevant UN Procurement Procedures Procurement Planning – Subject matter Requirement Definition – Specifications Sourcing – selecting environmentally and socially responsible suppliers and manufacturers Evaluation – using Life Cycle Costing and Bonus System Contract Review and Award – contract clauses	The section has been contextualised to the Mauritian Procurement System. The Section on Contract Review from UNEP guidelines has not been included in the Mauritian Guidelines. This will be taken up as a subsequent deliverable for the project where detailed analysis of the Standard Bidding Documents for each of the Product Categories will be conducted.
3.	Institutional Enablers for Sustainable Public Procurement in Mauritius	-	-	This section presents a review of the existing and proposed Policies, Strategies and Programs that can stimulate SPP in

SPP Guidelines for Mauritius		UNEP SPP Guidelines		Remarks
Sec. Nos.	Title	Sec. Nos.	Title	
3.1.	“Maurice Ile Durable” (MID) Policy, Strategy and Action Plan			Mauritius.
3.2.	National Programme on Sustainable Consumption and Production (2008 - 2013)			
3.3.	National Action Plan on Sustainable Public Procurement (SPP) for Mauritius (2011-2015)			
3.4.	Solid Waste Management			
3.5.	Facilitation of End-of-Life Disposal of Procured Items in Public Bodies			
4.	Key Environmental Impacts	3.	Key Environmental Impacts	The SPP Approach for Reducing Key Environmental Impacts has been reviewed and expanded from that included by UNEP.
4.1.	Elements and Potential Environmental Impacts(<i>specific to each product category</i>)	3.1.	Potential Environmental Impacts(<i>specific to each product category</i>)	
4.2.	Reducing the Key Environmental Impacts			
5.	Key Social Considerations	4.	Key Social Considerations	-
6.	Legislations Impacting Procurement(<i>specific to each product category</i>)	5.	Legislations Impacting Procurement(<i>specific to each product category</i>)	-
7.	Framework for developing Sustainability Criteria	-	-	This section has been specially included in the Mauritian SPP Guidelines. It describes how the Common Core Criteria developed by the Green Purchasing Network of India can be used as a framework to develop Sustainability Criteria for products towards public procurement.
7.1.	Background			
7.2.	GPNI’s Common Core Criteria			
7.3.	Relevance and Applicability			
7.4.	Linking GPNI’s Common Core Criteria to Prequalification Criteria			
7.5.	Linking GPNI’s Common Core Criteria to Sustainability Criteria(<i>specific for each of the product categories</i>)			

SPP Guidelines for Mauritius		UNEP SPP Guidelines		Remarks
Sec. Nos.	Title	Sec. Nos.	Title	
8.	Key Sustainability Criteria(<i>specific to each product category</i>)	6.	Sustainable Procurement Criteria – Sources and Rationale	Section 8.2. of Mauritian SPP Guidelines matches Section 6. of the UNEP Guidelines.
8.1.	Procurement Planning	7.2.	Verification methods	Section 8.3. of Mauritian SPP Guidelines matches Section 7.2. of the UNEP Guidelines. All the other sections on Sustainability Criteria (8.1 – 8.5. of Mauritian Guidelines) matches the section heading given in the product sheets of UNEP. Key Sustainability Criteria have been contextualised to the Mauritian context.
8.2.	Developing the Criteria – Sources and Rationale			
8.3.	Verification Methods			
8.4.	Sustainability Criteria and Verification Guidance			
8.5.	Prequalification Criteria Requirement Definition Implementation Notes On Prequalification On Requirement Definitions On Evaluation			
9.	Evaluation of Criteria(<i>specific to each product category</i>)	-	-	The details on Weighting Methods are provided in the product sheets of UNEP.
10.	Relevant Ecolabels (<i>specific to each product category</i>)	6.1.	Environmental Labels(<i>specific to each product category</i>)	
11.	Information Sources	8.	Information Sources	-
12.	Additional Guidance	6.2.	Other Guidance	-