

GREEN PURCHASING: THE NEW GROWTH FRONTIER

**Policies and programmes to enhance
green business growth in Asia,
Europe and the United States**

International Green Purchasing Network



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International Green Purchasing Network



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Foreword

As the world aggressively fosters green initiatives to sustain the quality of life and the global environment, the Malaysian government has equally shown its seriousness in the promotion of green technology and eco-products in all sectors of the economy. Its commitment is reflected in the policies, strategies and the institutions that it has put in place to green the economy. One of the strategies of the government's green technology policy is green purchasing.

The Green Purchasing Network Malaysia (GPNM) complements the government's efforts in promoting green purchasing. It does so by encouraging buyers, suppliers and manufacturers to adopt sustainable consumption and production methods. Such green purchases will encourage manufacturers to produce products with little, if any, negative impact upon the environment. The GPNM seeks to embed the practice of green values in the daily lives of Malaysians. Such green purchases will encourage manufacturers to produce products.

To achieve our vision, we will promote green purchasing aggressively. Part of our awareness-building initiative on the importance of green purchasing is our online web directory for green products and services from around the nation and the globe. This knowledge base allows users to search for guidelines on green practices in Malaysia and the region. The web directory enables visitors to easily find green products or services that they require. They are better able to determine the "greenness" of a product based on the extent of the product's impact upon the environment. Consumers can then make an informed purchase with the full understanding that they are directly contributing to a greener environment.

This book comes in handy in GPNM's drive to build consumer awareness of the importance of green purchasing. It is a useful handbook on green purchasing practices of nations across the world. It inspires us to do more and achieve more in the area of green purchasing.

We are proud to be associated with the publication of this book. This book would not have taken shape if it was not for Mr Augustine Koh, the Secretary General of GPNM. He mooted the idea (and followed it through) that it would be opportune to publish a book that documents green purchasing by governments and businesses around the world in conjunction with the International Greentech and Eco-products and Services Exhibition and Conference 2010. This book will surely add to the stock of knowledge on green purchasing.



Tan Sri Mustafa Mansur
President,
Green Purchasing Network Malaysia

October 13, 2010

Preface

Green purchasing is a relatively new concept in many parts of Asia. It is being actively promoted in Japan, the Republic of Korea, Taiwan, China and Thailand. In Europe, America, Australia and New Zealand, green purchasing has gained wide acceptance and is being promoted under different names such as “green public procurement” (GPP), “environmentally-preferable purchasing” (EPP), “sustainable public procurement” (SPP, UNEP) and “government green procurement” (GGP). Today, many Asian countries such as Malaysia, the Philippines and India, are actively pursuing this mode of purchasing and we hope this publication will serve as a good source of reference and inspiration.

Green purchasing requires the public, governments and businesses to consider, first, the necessity of purchasing, and second, the environmental impact of products and services at all stages of their life cycles – including supplier and distributor performance – before making the decision to purchase.

It is about buying goods and services that, after consumption, are recyclable or reusable. Minimal waste, if at all, is created, and the production processes use environmentally-friendly technology that does not pollute the environment in the scale of conventional technologies. Additionally, the “green” technology should use less amounts of energy which, increasingly, should come from alternative sources such as biomass, biogas, solar and wind. Green technologies can shape production and consumption trends. A significant demand from public authorities, and the public, for “greener” products will create, or enlarge, markets for environmentally-friendly products and services. It will also provide incentives for companies to develop green technologies to produce and supply green products.

Green technology and products are employed so they can help reduce carbon emissions, the main culprit in global warming and environmental pollution. As such, green technology and purchasing can contribute to a cleaner and greener world. Additionally, as the products become increasingly recyclable or reusable, either wholly or partly, waste is reduced. Consequently, there will be less pressure on landfills, which are themselves a health hazard

and damaging to the environment. Besides conserving energy, green technology also reduces the amount of material and natural resources used in producing the green products.

This book seeks to inform the reader about the significant contribution of green purchasing (GP) in making the environment more liveable. It is a useful guide to governments and interested parties on how to promote GP through measures such as establishing GP laws, eco-labeling, GP networks, green-products databases and exhibitions. Specifically, the book:

- Provides an overview of the various policies and programmes that have been instituted by the governments of various Asian and European countries and the United States in promoting GP. These include eco-labeling and government green procurement (GGP) laws;
- Describes the efforts of the private sector in promoting GP. These include the activities of GP networks in promoting GP through the development of product databases and exhibitions. The concerted efforts by governments and businesses across the globe should bring home the point of the urgency of GP;
- Analyses the future of GP, namely, the greening of the supply chain and expanding private-sector green purchasing;
- Identifies the critical success factors that must exist to ensure the embedding of green technology in the production and supply of green products and services, and in cultivating the desire for GP in the hearts and minds of the consuming public; and
- Provides recommendations on how to pursue GP in the future more effectively.

The book is organised into five chapters. Chapter 1 highlights the importance of green purchasing (or GP). Chapters 2 and 3 describe the efforts of the governments and businesses of Asia and Europe respectively in making GP a central element in reducing the negative impact of consumption of products and services upon the environment. Chapter 4 highlights the GP practices of the US federal

government and the guidelines for such practices among the agencies.

Based on the experiences of the two continents and the United States, the book details, in Chapter 5, the lessons learnt, chiefly, the critical success factors to ensure that GP gets embedded in the consumption behaviour of the public, including governments and businesses. It also draws conclusions and future prospects for GP.

If this book has fortified the belief of the reader that he or she can do some good to the environment by making his or her purchases green, if at all these have to be made in the first place, then the book has fulfilled its purpose.

We would like to acknowledge the contributions of Dr Ning Yu, Chair of the Taiwan Green Purchasing Alliance, for preparing the first draft. Subsequently, we thought that her contribution should have a wider readership. Hence, we have included her draft in this book for wider circulation. This book expands on the draft of Dr Yu. It incorporates new information and contributions from others, making it possible to organise the book into chapters. GP activities are evolving. We hope to incorporate the contributions from many other countries in our second edition.



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Augustine Koh
Council Member, International Green
Purchasing Network & Secretary-General,
Green Purchasing Network Malaysia

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There are many others who have contributed in one way or other to making this publication possible. To those unsung contributors, we acknowledge your contribution with thanks.

CHAPTER 1

THE NATURE AND IMPORTANCE OF GREEN PURCHASING

According to the Copenhagen Diagnosis Report (www.copenhagendiagnosis.com), it is difficult to deny the seriousness of global warming and the speed at which it is proceeding. Global carbon dioxide emissions from fossil fuels in 2008 were nearly 40 per cent higher than those in 1990.

Recent global temperature rises demonstrate human-induced warming. The sea-level predictions have been revised. By 2100, the sea level is estimated to rise by two metres. Observed trends on rising CO₂ emissions and the sea-level rise constitute threats to the world environment. Summer-time melting of Arctic sea ice has accelerated far beyond the expectations of climate models. Both the Greenland and Antarctic ice sheets are losing mass at an increasing rate. Several vulnerable elements in the climate system, that is, the tipping elements, could be pushed towards an abrupt or irreversible change if warming continues, if we develop in a business-as-usual way throughout this century. Recent prediction by scientists in the United Kingdom shows that the surface temperature increase will reach up to 4°C by 2060 in the worst case.

If global warming is to be limited to a maximum of 2°C above pre-industrial values to suppress the tipping point elements, global emissions need to peak between 2015 and 2020 and then decline

rapidly. The average annual per-capita emissions will have to shrink to less than one metric ton of CO₂ by 2050. This is 80 to 95 per cent below the per-capita emissions in developed nations in 2000.

Last year, both at the L'Aquila Summits (G8 and Major Economies Forum) in Italy and COP15¹ on climate change in Copenhagen, world political leaders clearly recognised and accepted the 2°C target for the first time. We should try to achieve a significant cut of CO₂ emissions in order to keep the 2°C target. Even with concerted near-term efforts and international cooperation on emission reductions, the climate system could change quickly and unexpectedly.

Many scientists are now proposing measures other than CO₂ reductions, such as geo-engineering. Geo-engineering is defined as the deliberate large-scale manipulation of the planetary environment to counteract anthropogenic climate change, for instance, by the use of carbon-dioxide-removal techniques and solar-radiation-management techniques. The Royal Society of the UK has published a report, *Geo-engineering the Climate*, and concluded that it should only be considered as part of a wider

¹ 15th Session of the Conference of the Parties to the UN Framework Convention on Climate Change, Copenhagen, Denmark, December 7–18, 2009

package of options for addressing climate change. The society also exhorts parties to the United Nations Framework Convention on Climate Change to make increased efforts towards mitigating climate change and, in particular, to agreeing to global-emissions reduction of at least 50 per cent of the 1990 level by 2050 and more thereafter. Geo-engineering options should be considered as the last resort.

We should also consider material risk in addition to climate risk in developing a green-growth strategy. The former is in the form of depletion of natural resources, in particular, oil and metals. Many experts predict that oil may be depleted within a few decades. By 2050, the current reserves for iron (Fe), molybdenum (Mo), tungsten (W), cobalt (Co), platinum (Pt) and palladium (Pd) will be completely exhausted. Consumption will exceed supply of the resources of copper (Cu), lead (Pb), zinc (Zn), gold (Au), silver (Ag) and tin (Sn). Despite such a material risk, there are no international laws and panel to conserve natural resources.

A resource-efficient and low-carbon economy can be realised by eco-innovation. Many governments are allocating significant amounts of money into the effort or eco-innovation. We are now entering the sixth wave of innovations (Kondratiev cycle). The OECD report on *Eco-innovation in Industry* highlights the mutually-reinforcing links between innovation and environmental policies, viz, environmental effectiveness, radical resource productivity, decoupling economic growth from natural resource use and environmental pressure, eco-efficiency and cost-effectiveness, taking advantage of win-win opportunities in the market, and increasing socio-economic benefits.

Green growth through the development of green technology and green purchasing (GP) will help delay and forestall the imminent disaster to the environment if the world does not go green. GP has long been looked upon as an effective means to reduce the negative environmental impacts due to the conventional production and consumption of products and services. Such negative effects upon the environment include not only the emission of greenhouse gases but also the mounting pressure of waste in landfills. Waste disposal has become a major issue in all urban centres because traditionally-manufactured products have limited reuse and are not able to be recycled extensively once they are used.

As such, landfills grow to cater for the increasing waste, much to the detriment of the health of the community and the environment, and increasing the costs of waste disposal.

WHAT IS GREEN PURCHASING?

Green purchasing is about sustainable procurement,² a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole-life basis – in terms of generating benefits not only to the organisation, but also to society and the economy, while minimising damage to the environment.

In its *Green Purchasing and Green Public Procurement Starter Kit*, the International Green Purchasing Network (IGPN) defines “green purchasing” (GP) as “the purchase of any product and service that results in a lesser environmental impact while performing a similar function, and while demonstrating social responsibility and ethics, at its comparable price”. In short, for the purchase of a product or service to qualify as a GP activity, it needs to take into consideration and strike a balance among quality, cost and functions, and its environmental, social and ethical aspects. GP builds on the three pillars of sustainable development. Thus, to make public procurement sustainable, environmental, social and economic considerations have to be taken into account.

Public procurement will be sustainable when public officers include sustainability issues at all stages of the procurement process – including, for example, the selection of suppliers or the management of contracts. For many of the officers, this implies new practices such as the screening of suppliers throughout the value chain to check for compliance with labour laws and the insertion of social and ecological criteria into technical specifications in the bidding documents (for example, regarding lower emissions of vehicles, organic food or certified wood, and compliance with labour laws).

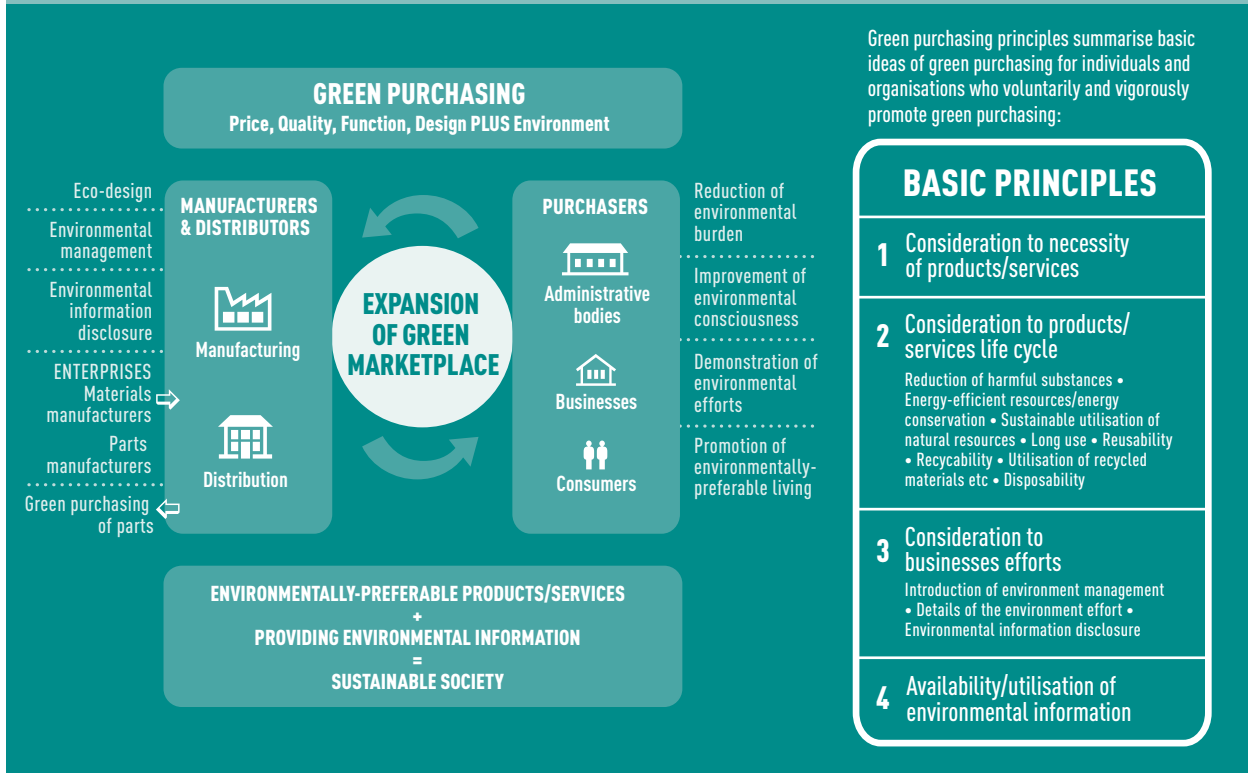
Sustainability considerations are not concentrated on the end product as such, but the whole

² Throughout this book “government green purchasing” (GGP), “sustainable public procurement” (SPP) and “government procurement practices” (GPP) are used interchangeably based on each country’s usage.

WHAT IS GREEN PURCHASING?

Green purchasing is to purchase environmentally-preferable products or services, taking into consideration the necessity, not only quality and price, from environmentally-conscious businesses.

Promoting green purchasing will allow us to create a “green marketplace” and encourage businesses to develop environmentally-preferable products or services through the market and promote management in consideration for the environment. Therefore, green purchasing has a power to change a society as well as business behaviour.



life cycle of a product or service has to be taken into account – from extraction and production through to transportation and its disposal.

WHY DO WE NEED GREEN PURCHASING?

In many cases, governments can be more cost effective through public procurement (PP) compared to a private business. Some of these products and services are less costly in terms of their use, maintenance and disposal despite higher upfront investment costs. Indeed, PP is a way to use taxpayers money in a responsible way. Sustainable procurement is a means of implementing and delivering policy decisions. It can help to achieve improved efficiencies as well as innovations for sustainable development, and is a strong driver in changing the rules of the economy. With their market

power, governments can influence producers to shift quicker to a more sustainable economy. Green innovations are a major growth sector; through sustainable public procurement (SPP), governments can support its start-up phase and thus contribute to the creation of new jobs.

PP is a cross-cutting issue and, therefore, can have positive impacts on a broad range of topics. For example, it can help reduce greenhouse gas emissions (including CO2 emissions) and air pollutants, improve energy and water efficiency, reduce waste, support reuse and recycling, support the use of renewable resources and the development and use of cleaner technologies. Positive social impacts include poverty eradication, improved gender and ethnic equity, and/or respect for core labour standards.

Purchasers in both the private and public sectors spend trillions of dollars each year on purchasing

activities. Governments are major consumers of goods and services, with their purchasing power representing 15 to 25 per cent of the GDP in most nations. Governments can, therefore, make a difference in environmental and social outcomes by choosing more sustainable options. They are strong levers for change and, now, they also have a chance to lead by example.

INCREASE IN “GREEN” PRODUCTS AND SERVICES

It is widely acknowledged that “greening” government purchases can contribute significantly to the production, supply and promotion of green products and services, thus improving the health of our environment. Hence, governments, and many progressive non-governmental groups, have been actively promoting green-purchasing (GP) activities since the early 1990s. Today, GP forms an important part of many governments’ larger goal to integrate sustainable development into day-to-day decision-making.

It has been demonstrated that the effective use of government spending power can help strengthen market demand for environmental goods, services and technologies, thus, supporting green growth and eco-innovation. Government green procurement can, at the very least, add to overall market demand for these services, creating new avenues for niche markets and employment, thus generating higher-income jobs. Additionally, green procurement can result in:

- Lower costs due to efficient management of waste and hazardous materials;
- Cost savings by employing devices that conserve energy, water and fuel conserving devices;
- Lower health costs related to workers’ exposure to toxic substances; and
- Reduced demand for landfill space.

Direct and significant impact

A second reason to promote green or sustainable procurement is that governments, due to their importance as customers in some markets, can make a difference in environmental outcomes by choosing environmentally-friendly options. For instance, it is estimated that if all public authorities in the European Union (EU) demanded green

electricity, this would save the equivalent of roughly one-fifth of the EU’s greenhouse gas reduction commitment under the Kyoto Protocol. The extent to which public procurement can deliver direct environmental and social improvements through purchases from particular industries or sectors will depend on the government market share in those sectors, as well as on the environmental and social impacts of the targeted sectors.

More rapid shift to cleaner technologies

A third reason for involvement in green procurement, which is directly linked to the second, is that governments can use their market power to influence producers to shift more rapidly to cleaner technologies. By lowering the costs of clean technologies due to scale economies, this can also help private consumers shift to environmentally-friendly products. In many industries, it may prove more economical to “green” a whole line of products rather than maintain two separate lines of products, especially when public orders of the green version of the products make up a substantial share of total sales.

Public procurement has driven “green” product innovation, including the development of energy-efficient clothes dryers, electric motors, office copiers, computers and lighting, and low-emission buses. A well-documented success story is the market transformation in the United States following a 1993 Executive Order which required that the federal government purchase only Energy Star computer equipment. Until then, such energy-efficiency technologies had only been applied to laptop computers. With the US government being the largest purchaser of computers worldwide, the Executive Order led to market transformation. By the end of the 1990s, Energy Star computer equipment dominated the market. Moreover, this sparked the market development of other Energy Star products, which today include thousands of product categories. Stricter Energy Star energy-efficiency specifications became effective in July 2007.

Creation of indirect effects

Lastly, public demand for more sustainably-produced goods and services can also have desirable indirect effects, such as raising consumer awareness about the environmental and social implications associated

with different types of purchases. Governments wanting to promote more environmentally-friendly consumption patterns may find it necessary and useful to lead by example, by putting public-procurement practices in line with their publicly-advertised environmental goals.

The categories of products and services subjected to green purchasing have gradually expanded to cover products including paper, office supplies, motorcars, office automation equipment (computers, printers, etc), furniture, clothing, food, lighting equipment and household appliances. They also include services such as banking, construction, cleaning, printing, hotels, transportation and electricity supply.

THE IMPORTANCE OF ECO-LABELING PROGRAMMES

What constitutes a greener product or service? This process can often be both intimidating and value-laden as it is difficult to weigh environmental merits across different product categories and attributes. For example, how does one evaluate the merits of processes which emphasise toxic reduction as against energy efficiency?

So, despite the commonsense definition of green products and services advocated by IGPN, many purchasers still find it difficult to identify the purchases that would constitute green purchasing. To make incremental improvements to procurement practices, we need to broaden the definition of what constitutes green goods to include greener production processes. This extended definition provides a broader range of green goods to choose from. It also reinforces industry efforts to apply more comprehensive approaches such as environmental design, environmental management systems and life-cycle analysis.

This is where eco-labeling programmes can play an important role. The ISO 14020 series standards on environmental labels and declarations categorise the various eco-labeling programmes into three types:

- **Type I.** Based on multiple criteria and life-cycle considerations (LCC). They include almost 40 programmes around the world;
- **Type II.** Self-declarations or claims made by manufacturers; and
- **Type III.** Life-cycle-assessment-based

declarations verified by independent third parties, such as those from the members of the Global Type III Environmental Product Declaration Network (GEDnet).

Besides these, there are various environmentally-related single-attribute or single-sector labeling programmes. They focus on specific issues such as energy (e.g., Energy Star) or forestry (e.g., the Forest Stewardship Council or FSC Label).

Of the various eco-labeling programmes around the world, the Type-I programmes are the most established and respected. They have been well-represented by the Global Eco-labeling Network (GEN) which is an international association established in 1994 by global practitioners of Type-I eco-labeling programmes. Its objective is to promote cooperation and harmonisation among members.

In Asia, there are at least 12 Type-I eco-labeling programmes in 10 countries, namely, China (with two programmes), Hong Kong (also two programmes), India, Indonesia, Japan, Korea, the Philippines, Singapore, Taiwan and Thailand. These programmes have common traits. They have a trademark-registered logo based on pre-set criteria and are third-party certified, which make these logos and the labeled products and services easy for consumers to recognise and choose as green products and services.

In addition to Type-I eco-labeling, many other programmes are also highly visible in Asia. These include:

- National energy labels in China, Japan and Taiwan;
- International single-attribute labels on electronics (TCO and EPEAT labels), energy (Energy Star) and forestry (FSC Label); and
- Several Type-III eco-labeling issued by EPD programmes in Japan (Eco-leaf) and Korea (EDP) and other GEDnet members.

In conjunction with the green-public-procurement programmes and legislation implemented in recent years by Asian countries, such as Japan, South Korea and Taiwan (these programmes and legislation will be discussed later), these eco-labeling programmes, especially the Type-I variety, have been instrumental in identifying applicable green products and services. Many of the green-procurement activities in Asia adopt the eco-labeled products or

the product criteria from these Type-I programmes for the following reasons:

- First, the Type-I programmes are the world's first, or earliest (for example, the Germany Blue Angel programme was introduced in 1977). They have produced and become the most widely-known eco-labeling around the world;
- Second, they follow the international ISO 14024/ISO 14020 standards and are typically operated by public or government-commissioned entities to minimise conflict of interest;
- Third, they adopt open and transparent development processes – with multiple-stakeholder involvement – to develop precise and quantified criteria based on full life-cycle considerations, which can be easily incorporated into tender documents; and
- Finally, the active promotion of the GEN has greatly increased the possibility of achieving international or regional recognition of product criteria among these programmes.

CONCLUSION

This chapter sought to give an outline of green purchasing (GP) and how GP, especially that of the government, can influence the development and application of green technology. The following three chapters will highlight the developments in green purchasing in the public and private sectors in Asia, Europe and the United States.

CHAPTER 2

GREEN PURCHASING IN ASIA

This chapter highlights the efforts taken by governments and international organisations in Asia in promoting green purchasing. This is followed by a description of the rise of green purchasing networks and the initiatives taken by the private sector.

GOVERNMENT GREEN PROCUREMENT

Due to its tremendous purchasing power, government green procurement (GGP) or sometimes called “green public procurement” (GPP), has long been used as an important policy measure to introduce and promote the widespread use of environmentally-friendly (“green”) goods and services. The GGP is effective in promoting green consumption in that, as a group, the public sector is usually the largest purchaser in the country, and the government’s purchasing behaviour is often looked upon as the role model for businesses and individual consumers. When implemented properly and successfully, the GGP practice may stimulate a new market for green products and help lower their prices. In the following sections, the GGP programmes in several Asian countries are described briefly. These Asian countries have adapted different approaches and are at different stages implementing the green purchasing at the government level.

GOVERNMENT GREEN PROCUREMENT IN CHINA

Government green procurement (GGP) in China has been implemented since 2005 based on the *Government Procurement List on Energy-Saving Products* (promulgated in 2004) and the *Government Procurement List for Environmental Labeling Products* (implemented in 2007).

From 2005, central government agencies and provincial-level governments have been required to preferentially purchase energy-saving labeled products listed in the *Government Procurement List on Energy-Saving Products*. This requirement was extended to all levels of government agencies starting 2007. Currently, there are over 10,000 products within 33 categories under the “energy-saving label” which enjoy preferential procurement status.

The requirements for preferential purchases of Type-I eco-labeled products under the *Government Procurement List for Environmental Labeling Products* by central government agencies and provincial-level governments took effect in 2007. The requirement was then extended to all levels of government in 2008. Products have to be awarded an “environmental label” before they can be entered into the list in the first place. The products also have

to meet certain requirements of public procurement. Currently, more than 10,000 products from 700 manufacturers are listed in the fifth list within 24 categories under the China Environmental Labeling Programme. In 2009, the GGP of eco-labeled products in China amounted to more than 14 billion RMB.

GOVERNMENT GREEN PROCUREMENT IN THE HONG KONG SPECIAL ADMINISTRATIVE REGION (HKSAR)

The HKSAR Government Logistics Department (GLD) has taken measures to direct and facilitate GGP practices with the major aim of reducing waste generation. The *Waste Reduction Framework Plan (WRFP)*, which came into effect in November 1998, identified GGP as a core strategic waste-management initiative.

Most government procurement of goods and services in Hong Kong is handled by the GLD which is the government's central procurement agent. The HKSAR government launched its actual GGP efforts in 2000 by amending the *Stores and Procurement Regulations* to give consideration, as far as possible and where economically rational, to the selection and purchase of products with high recyclability, high recycled content, higher energy efficiency, clean fuels, low water consumption and low toxicity or non-toxic substances.

The first green specifications covered 31 product categories. After several consultancy studies in 2003 and 2006, the green specifications were advanced and expanded to 33 product categories including recycled paper, office stationery and cleaning materials.

During 2003–06, the GLD purchased about HK\$180 million worth of pertinent products. In 2008, the total amount of GLD procurement was HK\$3.9 billion and the total value of environmentally-preferable products was HK\$1.8 billion or approximately 45 per cent of the total GLD procurement amount.

Under *A Policy Framework for the Management of Municipal Solid Waste (2005–2014)*, which was published in December 2005, the HKSAR government pledged to develop and adopt a green-purchasing policy. After a Task Force on Economic Challenges meeting in June 2009 and in the Policy Address

2009–10, the HKSAR Chief Executive further announced the expansion of the scope of green purchasing in government departments and that the HKSAR would take the lead in making Hong Kong a green city through legislation and specific green measures.

The HKSAR Environmental Protection Department commissioned a consultancy in July 2008 to research and develop green specifications for selected products that the Hong Kong government departments commonly procure. This work was completed in 2010 and the government has defined the specifications. It relates to 103 specific products in 17 broad product categories, including building and construction materials, cleaning products, computer equipment, electrical appliances, fuel oil, furniture, household products, office equipment, paper and plastic products, printing and publishing equipment and supplies, stationery, telecommunications equipment, textile materials and garments, as well as vehicles and spare parts. There has been notification that the HKSAR government intends to apply these green specifications as mandatory requirements in the future, once sufficient applicable and competitive products are available in the market.

GOVERNMENT GREEN PROCUREMENT IN TAIWAN

The GGP programme in Taiwan was introduced in May 1999 through the adoption of a green procurement article (Article 96) in its *Government Green Procurement Act*. The government then promulgated the *Action Plan for Implementing Green Procurement by Government Agencies* in 2001 and stipulates designated product categories and annual procurement goals.

The action plan divided the implementation of the GGP in Taiwan into two periods:

- **The promotion period.** This stretched six months from July to December 2001 and covered only the central government agencies and the governments of the two largest cities in Taiwan — Taipei and Kaoshiung. It set a GGP target of only 30 per cent (that is, the percentage of GGP amount of the total purchase amount in each designated product category).
- **The official implementation period.** This

started subsequently in January 2002, with an expanded scope covering central and first-level (city and county) government agencies, government-owned enterprises and other public institutions such as public schools and hospitals. The green-procurement target was set for 50 per cent in 2002. It was then increased gradually to 85 per cent in 2008. The GGP programme is mandatory for all levels of government agencies, institutions and state enterprises involved. These government agencies are required to report GGP results by February and August each year to the Taiwan Environmental Protection Administration (TEPA) as a performance-tracking measure.

At present, there are 44 designated green-product categories which may enjoy preferential-purchasing treatment by the government. These categories include office paper, stationery, computers, refrigerators, air conditioners, water-saving toilets, compost, products made from recycled wood, water-based paints and cleaning products. In addition, to facilitate the agencies' GGP efforts, a system of "common supply contracts" has been implemented through the Bank of Taiwan. As it offers the advantages of lower purchasing price and less administrative cost, the system has been conveniently adopted by most agencies while conducting GGP.

To promote and facilitate the implementation of the mandatory GGP programme, the government has also adopted a host of additional measures. For example, regular training courses are offered to government procurement officers. Green-procurement guidelines, telephone hotline and a GGP website have been established to offer information on GGP. An electronic reporting and auditing system is in place to track performance, and the reported GGP result is then evaluated based on the *Guidelines for the Evaluation of Performance*.

Under Taiwan's GGP programme, the government-sponsored Green Mark Type-I eco-labeling programme and its eco-labeled products enjoy top-priority procurement status. Such a status has, in turn, increased its visibility and credibility among consumers. Since its implementation in 2002, the annual GGP spending in Taiwan has increased from 2.6 billion NT dollars during the second half of 2002 to 5.6 billion NTD in 2003

and reached 6.8 billion NTD in 2008. Concurrently, the number of Green Mark-licensed products has also increased from 576 in 2002 to 717 in 2003 and to 876 in 2008. These figures demonstrate the close relationship between successful eco-labeling and increased GGP spending.

GOVERNMENT GREEN PROCUREMENT IN INDIA

While India has no "defined" green-public-procurement (GPP) process, its various tenets are reflected in the existing public-procurement (PP) processes. The preference for green products in the Indian market can be traced back to certain primary policies of the government to support the handloom and small-scale sectors. The products from these sectors are low on resource intensity. They also contribute to societal equality. In its PP policies, the government gives clear preference to the hand-woven textiles (*khadi*) products and has reservations for handloom sectors.

The product sector also has been influenced by various governmental initiatives aimed at reducing the environmental impact of products or product use. In 1997 the government banned the use of *azo* dyes in, among others, textiles, leather as well as food items. Similarly, the complete avoidance of lead as an additive in gasoline (petrol) was enforced in the year 2000.

India launched its own eco-labeling scheme called "Ecomark" in 1991. Although the Ecomark is similar in many ways to eco-labels in other countries, it differs from most in one important aspect; eco-labels in most countries are awarded solely on the basis of environmental considerations, however, the Ecomark is also linked with the quality of products. In other words, in order to be eligible, products must meet both environmental and quality criteria. The Ecomark is awarded for 16 product categories.

To categorise energy-using products (EUPs), the Bureau of Energy Efficiency (BEE), a statutory body under the Union Ministry of Power, has announced a star-labeling programme. The labels allow the consumer to identify the products based on energy efficiency. The programmes contribute to environmental protection and to enhanced energy access.

Sectoral ministries as well as manufacturer associations have also played a critical role in the greening of products. Their actions, in most cases,

have been to facilitate and to encourage Indian manufacturers to respond to green markets. For example, the Textiles Committee established under the Ministry of Textiles, has been assisting manufacturers to respond to the demands of the European and other developed-world markets in fostering alternative processes which avoid the use of the banned chemicals.

Similarly, the Electronic Industries Association of India, or ELCINA, has been creating awareness and supporting the Indian electronics industry to take up the challenges of compliance to international legislation like the *Restriction of Hazardous Substances* (RoHS) and *Waste Electrical and Electronic Equipment* (WEEE) directives of the EU, etc. In the leather sector, for example, the Central Leather Research Institute (CLRI) has been developing environmentally-friendly technologies for leather processing.

The Green Purchasing Network India (GPNI) has been an advocate and conducting research on the promotion of green products and purchasing. In this regard, it has been studying green products as well. A recent GPNI initiative has been the development of a research paper on *Carbon-oriented Ecomark Scheme for India*. The project, conducted with the support from the International Green Purchasing Network, was presented to the Central Pollution Control Board.

GOVERNMENT GREEN PROCUREMENT IN JAPAN

In May 2000, the Japanese government enacted the *Law on Promoting Green Purchasing*. It came into force in May 2001. The law requires the central government to develop a green-procurement policy and implementation plan, and to set up a competent authority to publish GGP guidelines and product criteria. Since 2001, the government has designated over 250 green-procurement products in 19 product categories. These categories include copy and printing paper products, stationery and office supplies, office furniture, office automation equipment, lighting equipment, automobiles, uniforms and work clothes, construction materials and services (for example, hotels and inns).

In 2007, all central government ministries, 47 prefecture governments, 12 designated cities, and 68 per cent of 700 local governments and cities

undertook green purchasing, and, collectively, 95 per cent of the purchased products in the designated categories were green products. To guide government purchasers, the Japanese GGP programme adopted the product criteria mainly from the Ecomark eco-labeling programme (94 per cent), Energy Star (37 per cent) and other criteria and database (28 per cent) specially promulgated for the GGP programme.

Additionally, the government introduced *The Law concerning the Promotion of Contracts considering Reduction of GHG Emissions by the State and Other Entities* (*Green Contract Law*) in 2007. It stipulates the green-contracting requirements for government agencies and public institutions in the purchasing contracts for electric power, automobiles, energy-service company (ESCO) projects and building designs.

Even though the *Green Contract Law* focuses more on reducing greenhouse gas (GHG) emissions from the production and supply of specific products and services, it complements the *Law on Promoting Green Purchasing* in establishing the Japanese legal framework for GGP. And, when combined with the eco-labeling programme and green purchasing networks, the two laws offer incentives and stimulus in greatly advancing green purchasing in Japan.

TARGETS AND ACHIEVEMENTS OF GREEN PURCHASING

In its 2008 *Basic Plan for the Establishment a Recycling-oriented Society II*, the Japanese Ministry of the Environment set the following goals to be achieved by 2015:

- 90 per cent of the public will have awareness on waste reduction, recycling and green purchasing. Of this segment of the public, 50 per cent will take action to reduce waste, recycle and make their purchases green; and
- All local governments, 50 per cent of the public companies listed on the Tokyo, Osaka and Nagoya stock exchanges, or 30 per cent of private companies or business establishments with over 500 employees, will systematically implement green purchasing.

The 2008 survey found that the local governments which said they systematically implemented green purchasing (GP) in at least one product category accounted for 73 per cent. The metropolitan and all prefectural governments systematically

implemented GP. However, their efforts also decreased in proportion to their organisational size. That is, the efforts at the village level fell below that of towns and the efforts of the towns were below that of city districts. The same survey found that the difficulty in the collective management of departmental purchasing, low awareness within the organisations, and the prices of green products were the major reasons for not being able to implement GP. The survey also found that 74 per cent of corporate respondents had already implemented GP.

According to the 2009 *White Paper on the Environment*, while consumer awareness on GP was high at 82 per cent, taking action to purchase recycled products or practise GP was low at just over 10 per cent. The findings clearly showed a large gap between awareness and behaviour.

RECENT EFFORTS AT PROMOTING GREEN PURCHASING

Since 2009, as part of the measures to assist economic recovery and the supply of green products, the “Eco-points System” was introduced. This system includes home electrical appliances such as refrigerators, air conditioners and TVs. Consumers who buy high energy-saving home electrical appliances receive Eco-points. The points can be used to purchase gift certificates, local products or green products. In 2010, the Eco-points System expanded in scope to include the purchase of highly energy-efficient residential homes and the retrofitting of insulation windows. Because these purchases lead to cost reduction during the usage phase of the products, the Eco-point System is widely welcomed by consumers.

Since 2009, economic incentives for the purchase of eco-products have been extended to vehicles. Depending on the fuel efficiency and exhaust-emission performance, the vehicle excise tax and the specific duty are reduced, thereby, offering a subsidy for the purchase of vehicles. The incentive system for vehicles was to end by September 2010.

The concept of “carbon footprinting” has attracted interest worldwide and Japan’s efforts in this direction are spearheaded by the Ministry of Economy, Trade and Industry (METI). During the 2009 Eco-products Exhibition in Tokyo, pilot products were on display at the “carbon footprint products” area and stakeholders were busy checking the information. Currently, the PCRs (product category

rules) for 45 categories have been developed and 94 products display the carbon-footprints logo.

By defining the criteria and implementing model projects, the Ministry of the Environment is leading the “carbon offset” efforts. Companies have also started to incorporate their own carbon-offset activities into their products and services and promote them as part of their public-relations activities. At international conferences held in Japan, such as the Asia-Pacific Economic Cooperation (APEC) and the 10th Conference of Parties to the Convention of Biological Diversity (COP10), carbon-offset activities were included in the environmental considerations for managing the conferences.

THE ECO MARK PROGRAMME AND GREEN PURCHASING

The Eco Mark programme, Japan’s only ISO Type I environmental label, is used for green purchasing as a mark for eco-products. The criteria of the Eco Mark certification correspond to those of the *Green Purchasing Law* in many product areas. Thus, they are often used as guides for GPP.

“The Green Public Procurement Survey on Local Governments” conducted in 2009 revealed that 95 per cent of the local governments used the Eco Mark label as their reference in making green purchases.

In recent years, the Eco Mark programme has focused on improving the product categories in order to raise consumer awareness of their purchasing impact on the environment. The criteria for shoes and footwear were developed in 2008. Those for leather clothes, gloves and belts, and projectors were developed in 2010. Service-industry criteria, including motor insurances and retail stores, are being developed.

GOVERNMENT GREEN PROCUREMENT IN KOREA

The Korean *Green Purchasing Law* was adopted in December 2004 and has been enforced since July 2005. The law requires the Ministry of the Environment to issue purchasing guidelines of eco-products annually, and ensure that public agencies announce purchasing plans and practices, and also report their GGP results annually. When conducting the GGP, government agencies are to preferentially purchase green products in the designated product categories. The “Eco-labeling

Mark” and the “Good Recycle Mark” are used as the criteria for identifying green products.

The implementation of the *Green Purchasing Law*, since 2005, has resulted in a tremendous increase in the amount of GGP spending by the Korean public sector. It rose drastically from US\$255 million in 2004 to US\$850 million in 2006 and to US\$1,779 million in 2008.

GOVERNMENT GREEN PROCUREMENT IN THAILAND

In March 2005, the Pollution Control Department (PCD), Ministry of Natural Resource and Environment (MONRE), developed guidelines for environment-friendly products and services and promoted green-procurement practices for government agencies. In January 2008, the cabinet resolutions endorsed the *National Green Procurement Plan* (NGPP) and required government sectors to implement the plan. The annual targets for the number of government agencies and amount of environment-friendly products and services from 2008–11 are specified in the plan as shown in the table below.

The Thai GPP programme adopted the product criteria mainly from the Thai Green Label Scheme (82 per cent) as well as from the Energy Efficiency Label (6 per cent) and other criteria (6 per cent).

To promote and facilitate the implementation of the NGPP, the PCD is actively implementing several promotional measures. These include conducting training courses for government procurement officers, developing green procurement guidelines and running a dedicated GGP website. An electronic reporting system is in

NUMBER OF PARTICIPATING GOVERNMENT AGENCIES AND AMOUNT OF ENVIRONMENT-FRIENDLY PRODUCTS AND SERVICES PURCHASED BY THAILAND’S AGENCIES

YEAR	NUMBER OF GOVERNMENT AGENCIES PARTICIPATING IN THE PLAN		AMOUNT OF ENVIRONMENT-FRIENDLY PRODUCTS AND SERVICES	
	TARGET (%)	RESULTS (%)	TARGET (%)	RESULTS (%)
2008	25	32.7	25	49.9
2009	50	64.0	30	59.9
2010	75	78.0	45	
2011	100		60	

place to track performance and report GGP results every six months.

GOVERNMENT GREEN PROCUREMENT IN MALAYSIA

Recently, the Malaysian government created a new ministry – the Ministry of Energy, Green Technology and Water – to promote green technology including green purchasing (GP). This green-technology agenda has attracted local and international interests as it advances GP through supply-side management.

The Ministry of Finance plays an important role in advancing greener procurement given that it is the largest single buyer. This role can assist in:

- Realising Malaysia’s broader goal of strengthening market demand for environmental goods and services; and
- Promoting greater environmental awareness among industry and public.

The government, working in partnership with non-governmental organisations and industry, can increase GP for products and services which have significant economic and environmental impact.

Some opportunities for greener procurement include:

- **Vehicles:** The purchase of greener technologies to convert public vehicles to enable them to use alternative fuels.
- **Building management:** A coordinated government green-building-management programme represents an important green procurement opportunity which can result in significant environmental and economic savings.
- **Hotels:** Government and private employees use hotels during the course of their duty and any change to hotel reservations would have a great impact on hotels. For example, the government could direct its employees to use a rating system based on the “greenness” of a hotel when selecting hotels for accommodation and conference purposes.

GREEN PROCUREMENT ISSUES

The Malaysian government is confronted with various issues when it comes to green procurement. They include the need for:

- National eco-labeling scheme;
- Capacity-building in green purchasing;

- Eco-products database;
- Promotions and exhibitions;
- Recycling;
- Using waste as a resource for production;
- Government-private sector partnership;
- Reduction in carbon emission; and
- Environmental legislation database.

National eco-labeling scheme

Currently, there is no national eco-labeling scheme in Malaysia. To enable the public and businesses identify green products and services, the use of national eco-labeling programmes and the incorporation of environmental specifications in government tenders and life-cycle analysis are imperative. Such measures are also in line with international green-procurement strategies.

While waiting for an eco-labeling scheme to be established, the government could, as part of its procurement processes:

- Require potential suppliers to fully describe the positive environmental attributes of their products, processes, services and environmental-management systems;
- Award certification for those products that have been reused, or are made in a way that improves energy efficiency, reduces hazardous by-products or uses recycled materials; and
- Establish criteria or guidelines in GP decisions as, for example:
 - Selecting recycled or energy-efficient products,
 - Considering the “cradle-to-grave” impact of goods and services,
 - Using other international eco-label-certified products, wherever feasible, and
 - Including environmental terms and conditions in purchasing contracts.

Capacity-building in green purchasing

Training in government green procurement is an important step in promoting green growth. Effective “greener government” action plans and training programmes engage employees in the change process, increase organisational awareness and encourage personal responsibility for the environment.

To achieve that objective, “green” computer-based training courses to change employee purchasing behaviour and practices towards greener

procurement can be conducted, in addition to conventional courses.

Eco-products database

To implement green procurement, there is a need to establish a green-technology and eco-products database system to track and identify credible green products. The *Green Products Interactive Directory* (a national electronic database) of the Green Purchasing Network Malaysia (GPNM) – being developed with support from the Malaysian Industrial Development Authority (MIDA) and the International Green Purchasing Association (IGPA) – will be able to support “greener” procurement by the government and the private sector. The government could build upon GPNM’s expertise for managing and monitoring the national-level database for eco-products.

This GPNM database is based on a comprehensive definition of green goods and services. The evaluation and selection criteria include concepts related to the overall environmental management of a firm, including its use of natural resources, new or modified production processes, as well as the environmental performance of suppliers.

While some progress is being made to better identify green goods and services, more work is required, nationally and internationally, to provide consumers the necessary information to confidently evaluate and select greener goods across different product attributes and categories.

There are green products databases in North America and Europe. Some of them can be used for the region’s GPP. They provide information for consumers, retailers and manufacturers on energy-efficient home electrical appliances, lamps, office equipment, consumer electronics and building components and cars.

The government could also capitalise on future technological advances in electronic commerce. Green-purchase criteria could then be seamlessly embedded into procurement software to make GP a default option and to facilitate the tracking of such purchases by government departments.

Promotions and exhibitions

Awareness campaigns are a key to the successful implementation of any policy or programme. The Green Technology and Eco-Products Exhibition (IEGM) to be held in October 2010 will promote

green technology and eco-products and services, thereby, contributing to green growth and showcasing Malaysia as a green-technology hub.

To further entrench Malaysia as a green hub, exhibitions such as the IGEM, should be held regularly. This would require government support in the initial years before the exhibitions become self-financing. Also, continued government endorsement will be critical for the success of these exhibitions.

Recycling

Recycling is now an essential part of manufacturing and green procurement. Large international buyers are stipulating to suppliers to produce goods with a certain percentage of recycled items. This is part of green procurement and the green supply-chain process. To ensure the greening of the supply chain and, consequently, the competitiveness of Malaysian manufacturing industries, incentives should be given to promote recycling.

Waste as a resource for production

Waste is now being dumped in legal and illegal landfills. This is a loss to the country, as the waste still contains some of the natural resources that had originally gone into producing the goods. As such, waste should be treated as a raw material for production. This not only assists green growth but also supports sustainable development efforts, creates green jobs and increases the national GDP. It will also reduce Malaysia's imports of certain raw materials, thus saving on foreign exchange.

Government-private sector partnership

As part of its broader policy agenda, developing effective partnerships with different parties is important to advance greener-procurement thinking and practices. Currently, there is a lack of consensus building. Hence, it is important that the government fosters effective dialogue among the parties that can move the green agenda further. One such dialogue that the government can institute, is the green-purchasing forum with appropriate private-sector involvement. Through this forum, the stakeholders could share information on green technology, products and services, leverage on collective purchasing power and, ultimately, develop common procurement standards based on best practices.

These standards could then be used by all levels of government to provide suppliers with greater certainty and consistency in developing greener products and services.

Workshops are important for participants from private-sector organisations and suppliers to come together to better understand different perspectives in accelerating the progress in greener government purchasing.

These partnerships and meetings are also beneficial because, governments, at different levels, learn from the experiences of others. By exchanging valuable tools and best practices, governments can save time and money by minimising the duplication of effort. Moreover, such exchanges can also help to gradually raise the bar of overall performance across governments. Other initiatives at forging government-private sector partnerships in promoting green growth include:

- Forging additional partnerships with other industry and non-governmental organisations to design and develop greener goods and services; and
- Promoting greater collaboration with agencies and organisations to better leverage government purchasing power and to develop shared performance indicators in assessing the efficacy of governmental procurement strategies.

Reduction in carbon emission

Climate change is another important procurement issue. Malaysia has committed to reducing its greenhouse gas emissions by as much as 40 per cent below the 2005 level by 2020. A national implementation strategy will ensure that all sectors of the economy – government, private sector, NGOs and the public – are involved in achieving the targets.

Establishment of an environmental-legislation database

An environmental-legislation database can inform investors about the regulations concerning the environment even before they invest in Malaysia. The government can work with organisations, such as the GPNM, to develop this infrastructure (laws, supply-chain requirements, etc) online, to assist investors in understanding quickly the issues

relating to the setup of manufacturing plants or businesses. Currently, the International Green Purchasing Network is working with national GPNs to create a similar online database.

GOVERNMENT GREEN PROCUREMENT IN NEW ZEALAND

As with many other countries, the New Zealand government is a significant purchaser within the national market and its procurement activity makes a significant contribution to the economy. In New Zealand, purchasing activities by government entities represent approximately 16 per cent of gross domestic product. This means that government entities can have a significant impact on the introduction of green products to the national market.

Through its strategic procurement policy objectives, the New Zealand government has set the expectation that its entities will require sustainably-produced goods and services wherever possible, having regard to economic, environmental and social impacts over their life cycle. To support this strategic principle New Zealand has developed, jointly with Australia, a framework for entities to use in implementing the strategic policy objective.

Within the New Zealand public sector, entities are accountable for the majority of their own procurement activity. These entities must comply with a set of financial-management accountability and reporting requirements. In undertaking their procurement activity, entities are expected to assess the nature and complexity for the procurement before determining the appropriate procurement process to source goods or services and how best to integrate sustainable considerations.

The Ministry of Economic Development leads the implementation of the sustainable procurement policy as part of its responsibility for government-procurement policy, good practice and procurement-profession-development activities.

MEMBERSHIP OF UNITED NATIONS MARRAKECH TASKFORCE

New Zealand is a member of the United Nations Marrakech Taskforce on Sustainable Public Procurement. The taskforce has developed a series of guidance documents based around the procurement process from project planning to contract management

and disposal, which is distributed to government entities. A programme of training focused on integrating sustainability considerations into procurement activity has also been run for staff within government entities.

PRIORITY-CATEGORY ACTIVITY

The New Zealand government has identified a number of priority categories where there is a relatively high environmental impact and developed a set of mandatory standards for these categories. The priority categories are air travel, vehicles, light fittings, timber, wood products and paper. For each category, a set of minimum standards and targets has been developed for entities and suppliers to meet. These are based on the most important sustainability attribute or impact for that category. Guidance material has also been developed for each category to assist entities to understand what is expected and how to comprehensively integrate sustainability considerations into procurement practice as a whole (including tenders, contracts, service-level agreements, monitoring and reporting).

ALL-OF-GOVERNMENT CONTRACTS

New Zealand has allowed a series of all-of-government contracts from which entities are required to source common goods and services in tactical procurement areas. These contracts involve goods or services that will typically have a high environmental impact. The initial contracts are for passenger vehicles, IT hardware (desktops, laptops and multifunction devices) and stationery. Each of the contracts has been assessed to consider the key environmental, economic and social impacts.

To put this in perspective, these contracts will equate to approximately 10 per cent of the New Zealand market for these goods and services. The size and scale of these new all-of-government contracts have increased the attractiveness to the market and encouraged the introduction of new products. For example, for the first time, motor vehicle manufacturers have discussed with New Zealand government procurement officials the types of vehicles imported into New Zealand, providing the government with an unprecedented opportunity to improve sustainability across the country. With the all-of-government contracts, sustainability criteria have been built into the contracts from the

start and are mandated for use. It is hoped these contracts will increase the use of environmentally-friendly goods across the entire state sector.

PROCUREMENT CAPABILITY

New Zealand is one year through a four-year reform programme which, as one of its key focuses, aims to lift procurement capability of organisations and individuals within the government sector. By improving procurement practice, New Zealand will be able to ensure that there is appropriate emphasis given to the environmental, economic and social impacts of government procurements. As part of this activity, a procurement-training programme aimed at staff involved in procurement or their purchasing activity has been developed. Sustainable-procurement principles will be integrated throughout the training programme so that they are considered as of the procurement process.

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The rest of the section gives a short description of the efforts of the Asian Productivity Organisation and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) on green purchasing.

ASIAN PRODUCTIVITY ORGANISATION AND GREEN PURCHASING

The Asian Productivity Organisation (APO), an international government organisation based in Japan, started its awareness programme on green purchasing in 2004 under its Green Purchasing Programme by hosting the Eco-products International Fair in Malaysia (2004). Similar fairs were held in Thailand (2005), Singapore (2007), Vietnam (2008), the Philippines (2009) and Indonesia (2010). Another fair is to be held in India in 2011. The number of visitors increased from 12,000 since the fair was first hosted to a record high of 110,000 at the last fair. This impressive attendance testifies to the increasing consciousness of green purchasing among the Asian public. This increasing consciousness augurs well for Asia in its

drive to green its economy.

The Eco-products Directory, which has been published by APO since 2004, represents a comprehensive guide to a range of eco-products currently on the market. To date, 4,400 eco-products and services have been covered in the past six editions of this directory. *The Eco-products Directory 2010* offers consumers straightforward listings of 1,000 leading-edge eco-products and clear explanations of the varieties and characteristic of eco-products listed.

UNITED NATIONS ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC (ESCAP) AND GREEN PURCHASING

The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) is the regional development arm of the United Nations. It serves as the main economic and social development centre for the UN in Asia and the Pacific. Its mandate is to foster cooperation among its 53 members and nine associate members and provide the strategic link between global and country-level programmes and issues. It consolidates regional positions and advocates regional approaches to meeting the region's unique socio-economic challenges in a globalising world.

According to ESCAP, green growth is defined as a policy focus for the Asia-Pacific region that emphasises environmentally-sustainable economic progress to foster low-carbon and socially-inclusive development. ESCAP partners with nations in the Asia-Pacific to promote green technology and green purchasing. It fosters knowledge sharing across the region. This is important as international sharing of good practices, information and knowhow in eco-innovation and technology will strongly contribute to green business.

GREEN PURCHASING IN THE PRIVATE SECTOR

This section describes the approach taken by the private sector in promoting green purchasing. In particular, it highlights the:

- Importance of green-purchasing networks (GPNs) and their activities, especially, eco-products and services exhibitions, for

- promoting green growth;
- Objectives of green-purchasing networks; and
- Good practices and experiences of some of these GPNs, especially, in the Asia-Pacific region.

The Asia-Pacific region has become not only the world's manufacturing factory but also its economic growth centre. Rapid growth brings numerous benefits. It helps a nation overcome its peculiar economic and social issues. At the same time, our planet's future depends on how fast governments, businesses and the huge population of the region address the environmental issues and join the fight against global warming, destruction of biodiversity and resource depletion. Eco-innovation and expanding the spectrum of eco-products are essential for achieving a resource-efficient and low-carbon economy.

Realising that the greatest potential of GP can only be achieved with the active participation of the private sector, governments in Asia are aggressively promoting it to both private businesses and consumers. Since mandatory GGP requirements cannot be imposed on the private sector, GPNs in the private sector complement public-sector efforts in promoting a green economy. These networks and their activities, chiefly, eco-products and services exhibitions, constitute the green-business platform upon which the drive for private-sector green purchasing is pursued.

OBJECTIVES OF GREEN-PURCHASING NETWORKS (GPNs)

The national GPN is usually an Internet platform which serves as a clearinghouse for information related to green purchasing. In a GPN, product specifications and market information for green products, as well information related to designing and implementing a green-purchasing programme, are often provided. The GPN also serves as a marketplace where green product buyers and sellers meet and conduct online transactions. In addition, the GPNs can conduct or organise various promotional and training events, such as eco-product exhibitions, international conferences, and green marketing or purchasing awards. They can also conduct annual surveys and offer training materials and courses. Among the objectives of GPNs are to:

- Exhibit eco-products and eco-services;
- Publish directory of eco-products and eco-services;
- Define eco-products and eco-services and systematically explaining eco-labeling;
- Draft green-purchasing guidelines;
- Offer a series of seminars to small- and medium-scale enterprises on environmental management system and eco-innovation;
- Match green businesses (b2b);
- Finance green ventures;
- Provide certification of environmental management and quality; and
- Facilitate education and training on green purchasing.

GPNs strive to ensure all these objectives are being met and are seeking to widely share their good practices.

GPN: CONCEPT, ROLES AND ACTIVITIES

The GPN concept, first introduced by the Japan Green Purchasing Network in 1996, is increasingly popular among Asian countries. Today, there are numerous GPNs worldwide, for example, NGPI in North America, International Council for Local Initiatives (ICLEI), and national GPNs in Japan, Korea, Taiwan, China, India, Thailand, Vietnam, Singapore, Indonesia and Malaysia. Vietnam's GPN will be officially launched in late 2010. Efforts are underway to set up the GPNs in the Philippines and Indonesia.

The International Green Purchasing Network (IGPN) was launched in April 2005. Its secretariat is based in Japan and the network is steered by its eight council members from North America, Sweden, Korea, Malaysia, India and Japan. Organisations in Hong Kong, Taiwan and the Philippines promoting green purchasing have also joined the IGPN.

National GPNs and the IGPN play an important role as green-business platforms, in promoting green business and green growth. For example, IGPN and GPN-India are preparing the "Collaborative Global Enviro-legal Portal". GPNs around the world are working closely with IGPN to create an international database that would ultimately assist governments and suppliers in green procurement.

The work of the GPNs and the IGPN is

gaining momentum. Notable events organised by the various national GPNs recently include the annual Eco-products International Fairs (EPIF) held between 2004 and 2010, annual Eco-product Exhibition in Japan, Eco-product 2008 in Korea, and 2007 Green Living Expo in Taiwan. As such, the work of GPNs and IGPN must proceed apace if green purchasing and the greening of supply chains are to make headway in this region.

The rest of the section will highlight the activities of some GPNs.

GPN activities in Japan

Japan's GPN has started to focus on providing information on green purchasing (GP) to individual consumers in addition to institutional purchasers.

To help purchasers select eco-products and services, guidelines for processed food and work ware have been developed. They can be accessed on the online database "The Eco-products Net". The GPN cooperates with the Tokyo metropolitan government, businesses and consumers associations to promote GP of processed food and work ware.

Recent activities by the GPN include (a) surveys to gauge individual consumer awareness and (b) GP campaigns which used the point-of-sale materials at retail stores to explain certain shopping tips to safeguard the environment. For individual consumers, the GPN conducts annual campaigns among all employees of GPN member organisations. Different themes are set for each campaign like "no plastic bags", "local production for local consumption", "carry my bag, my bottle and my chopsticks", and the GPN call for action during the campaign periods.

Japan green businesses have also launched the Japan Green Business Federation (JGBF) in April 2010 as a green-business platform to:

- Reactivate local communities via green businesses;
- Support SMEs in developing green businesses;
- Create green jobs for old and handicapped people;
- Promote eco-innovation;
- Network organisations that promote green businesses; and
- Propose environmental policies to the ruling political parties to promote green businesses.

GPN activities in Korea

To promote green initiatives in Asia, the Seoul Initiative Network on Green Growth was proposed by the Ministry of Environment of the Republic of Korea in 2005. The initiative consists of member states and provides a regional cooperation framework for green growth, taking into account the economic, social, cultural and geographical features of the region. It provides a framework for policy consultations, capacity-building, pilot projects and networking for the promotion of green growth at the regional level.

The initiative has identified three targets in pursuit of greening Asia:

- Improving eco-efficiency for environmental sustainability;
- Enhancing environmental performance; and
- Promoting the environment as an opportunity for economic growth and development.

Advanced science and technology are featured in the eco-products exhibitions. For this reason, science and technology parks (STPs) can contribute to such exhibitions. As such, in disseminating the advanced technology and inducing eco-innovation, green-business platforms should closely collaborate with STPs.

Green-business platforms, such as EPIF, IGEM, Low Carbon Green Growth EXPO and Eco-products Exhibition, network with each other to share good practices. The International Green Purchasing Network is willing to serve as the secretariat of the green-business-platform network in the Asia-Pacific region.

GPN activities in Malaysia

The Green Purchasing Network Malaysia (GPNM) is a non-government organisation which promotes GP by encouraging buyers, suppliers and manufacturers to adopt sustainable consumption and production methodologies. Founded in 2003, the GPNM is part of a global network that promotes green values. It has since been registered as a legal entity under the Registrar of Societies. The GPNM's vision is to benefit people, businesses, organisations and government agencies by sharing its vast knowledge on green purchasing and eco-friendly practices.

The government lends support to GPNM activities through grants for workshops, website

upgrading and the establishment of an eco-products and green-technology database. The GPNM, in collaboration with the Ministry of Energy, Green Technology and Water, has embarked on a promotion campaign to help spur the demand for green technologies in Malaysia. The Malaysian International Green Technology and Eco-products Exhibition and Conference, to be held from October 14 to 17, 2010, represents the first of a series of promotion campaigns to create the necessary awareness in the country of the importance of green technology and purchasing in greening the economy.

The GPNM'S knowledge base allows users to search for guidelines, green practices and upcoming events in Malaysia and the region. The GPNM also offers an online web directory for green products and services from around the nation and the globe. Often, visitors are unable to assess the authenticity of products that declare themselves as "green". This web directory enables visitors to easily find green products or services that they require, thereby, enhancing their confidence in a particular product or service. They are then better able to assess the "greenness" of products based on the extent of the products' impact upon the environment. Consumers can then make an informed purchase with the full understanding that they are directly contributing to a cleaner and greener environment.

Such green purchases will encourage manufacturers to produce products with little, if any, negative impact upon the environment. The GPNM's eco-database will be the best and most vibrant place for the listing of eco-products.

The GPNM owes its inspiration, as do other similar networks across Asia, to a parallel network in Japan. The practice of green values in the daily lives of the Japanese people is legendary. The GPNM intends to establish this practice of green excellence in Malaysia.

It is in pursuit of this noble effort that the GPNM has partnered with the Ministry of Energy, Green Technology and Water and the International Green Network to organise the International Greentech & Eco-Products Exhibition & Conference Malaysia (IGEM) 2010 scheduled to take place from October 15 to 17, 2010. IGEM 2010 represents a central aspect of the green-business platform. It is an important large-scale event to promote

Malaysia as a regional hub for green technology, eco-products and services.

Malaysia has great potential to become a regional leader in green technology and purchasing given the opportunities available. This exhibition and conference seek not only to build awareness among the public on the importance of switching to green technology and green purchasing but also to find ways to capitalise on the areas of opportunity for green technology development in Malaysia. The sectors with opportunities are:

- **Energy:** The national energy requirement is expected to reach 18 gigawatts in 2020. As fossil fuel, the current energy source, gets more expensive, polluting and depleted, alternative energy sources will increasingly become more important.
- **Building:** Urban population will increase by 40 to 50 per cent come 2030. Green buildings will increasingly be in demand, as the population becomes more conscious of its actions upon the environment.
- **Water and waste management:** Water consumption is 2.6 billion cubic metres a year. Waste generated per day is 23,000 tonnes, and this volume is expected to increase to 30,000 tonnes in 2020. Furthermore, only 5 per cent of the waste is recycled. Hence, green initiatives, such as recycling, have great potential in the water and waste management sector.
- **Transportation:** Air pollution, caused mainly by motor vehicles, offers opportunities for the introduction of green vehicles run on alternative fuels.
- **Eco-products and services:** The National Budget 2010 specifies that the Malaysian government will be giving priority to green products and services in public procurement.

IGEM 2010 seeks to exploit these opportunities for green technology by focusing on green technologies related to energy, transportation, water and waste management. The exhibition of green technologies and eco-products and services will comprise the following:

EXHIBIT PROFILE

5 MAJOR FOCUSES:

- ENERGY
- TRANSPORTATION
- WATER & WASTE MANAGEMENT
- ECO-PRODUCTS & SERVICES
- BUILDING

COMPRISING OF:

- | | | |
|-------------------------------|--------------------------|-----------------------------------|
| • Agriculture technologies | • Eco-design | • NGO |
| • Biotechnology | • Eco-IT | • Photovoltaic |
| • Carbon trading | • Eco-labeling | • Renewable energy |
| • Cars and transportation | • Food and health | • Recycling technology |
| • Construction | • Financial institutions | • State and municipal governments |
| • Consumer products | • Green buildings | • Universities and colleges |
| • CSR projects | • Government-led R&D | • Urban transportation |
| • Energy efficiency | • innovations | • Venture capitalists |
| • Environmental certification | • Government R&D funds | • Waste management — |
| • Environmental education | • Home and office | Recovery and recycling industry |
| • Eco-leisure | • IP registration | • And other related industries |
| • Eco-consultancy | • Life cycle analysis | |

The participants to this conference will be the following:

- Government & policy makers;
- Manufacturers & producers;
- Business owners, CEOs, COOs;
- Bankers & investors;
- Buyers & procurement officers;
- Professionals;
- NPO/NGO environmental groups;
- Trade officers & associations;
- Academics & researchers;
- Future decision makers;
- Home managers;
- Students; and
- The general public.

It is against this backdrop that this first-of-a-kind high-powered conference will assemble international experts and policy makers to share their expertise and experience in the development and implementation of green technology and purchasing. It is hoped that the conference will be able to move the green-technology agenda to a higher ground and expedite the greening of not only the Malaysian economy but also that of the region and the world beyond.

The GPNM will continue to contribute to building the nation's collective capacity for green growth by sharing best practices and tools with the government. It will also help implement the low-carbon-technology policy of the government.

GPN activities in Taiwan

The Taiwan Green Purchasing Alliance (TGPA) started as a virtual organisation five years ago and was formally registered as an NGO in February 2008. The following are among its activities:

- **Eco-product exhibitions:** In 2007, TGPA helped organise the 2007 Green Living Expo in Taiwan, as part of the Energy, Environment and Water Technology Show. The exhibition attracted 80,000 visitors and was successful in raising green-purchasing awareness among general consumers. A similar type of expo is expected in 2011.
- **Green Stores:** Initiated in 2007 as a TGPA project sponsored by the TEPA, the project seeks to work with local environmental-protection bureaus in soliciting local retailers to become "Green Stores". TGPA selected and provided technical assistance to retailers (supermarkets and wholesale, chain and department stores) to improve their environmental performance in order to qualify. At present, there are close to 10,000 Green Stores registered with TEPA and the number is increasing rapidly.
- **Code of Good Practice for Green Stores:** In order to qualify as a Green Store, the retailer needs to comply with the *Code of Good Practice for Green Stores*. Developed by the TGPA, the code includes requirements on the introduction and management of

green products, strategy on green marketing, hygiene and environmental measures, promotion of green consumption to customers, the holding of or participation in environmental events (e.g., training to employees), and promotion on waste recycling and reuse.

- **Green Marketing Award for Retailers:** All Green Stores are eligible to participate in the “Green Marketing Award for Retailers” contest. Present contestants are mostly from major chain stores such as B&Q, Geant, RT-Mart, Carrefour, Tatung, and Taisuco. The competing retailers are judged on their performance across three criteria: policy (project action plan, awareness and training), measures (purchase, display, sale and promotion of green products, and other environmental-management measures) and achievements (types and percentage of green products purchased and sold, and promotional achievements).
- **Online Store of Green Products:** The TGPA also operates an Online Store of Green Products for the TEPA. The green products marketed on the store include all green products recognised by the TEPA including Green Mark, Water Conservation and Energy Saving-labeled products.
- **2008 Eco Hotel Contest:** Organised by the GPA, the candidates for the contests consisted of 117 hotels recommended by Internet users. These contestants were then subjected to online voting by over 43,000 users. The 19 winning hotels of the contest were then awarded certificates on March 10, 2008. The same kind of activity is now carried out in many cities and counties.
- **Training materials:** An important task for GPNs is the development of training materials for use by purchasers, for example, the *Green Purchasing and Green Public Procurement Starter Kit* developed by IGPN and the Green Purchasing Network India. Through the cooperation of TEPA and TGPA, four different versions of training materials on green purchasing were developed in 2008 focusing on the topics of green consumption and Green Mark, government

green procurement, private-sector green purchasing, and promotional skills.

Eco-products exhibitions

Through green procurement, the greening of the supply chain will become imperative. This will motivate local industry players to be more innovative and creative in the manufacture and supply of new eco-products. The end result will be a new generation of eco-products, eco-designs and eco-materials that will help realise a green economy in the country. For this reason, considerable efforts have been made to organise a variety of exhibitions to spread environmental awareness and awareness of eco-products. For example, the following exhibitions will be held in 2010:

- **March:** Eco-products International Fair in Jakarta, Indonesia (EPIF)
- **April:** Eco World 2010 in Singapore
- **May:** Resilient Cities 2010 in Bonn, Germany
- **June:** Green Business Africa Summit & Expo 2010 in Nairobi, Kenya
- **October:** International Greentech & Eco-Products Exhibition & Conference Malaysia (IGEM) in Kuala Lumpur, Malaysia
- **October:** Low Carbon Green Growth Expo 2010, Seoul, Korea
- **November:** Green IT Expo, London, UK
- **December:** Eco-products 2010 Exhibition, Tokyo, Japan

The Eco-products Exhibition in Tokyo was launched in 1999 to publicise eco-products and, thereby, realise an environment-friendly society. The scale of the exhibition has widely expanded in this decade. At the Eco-products 2009, over 700 companies displayed their innovative technologies and solutions for business and consumers including children as the future consumers. The national and local governments, NPOs, NGOs and educational institutes introduced their activities and examples to solve environmental problems. About 180,000 visitors came to this fair that was held for three days. The number of visitors has kept increasing since the first fair in 1999, which had 47,450. This exhibition has grown to be the biggest among such exhibitions in Japan.

The Sixth Eco-products International Fair (EPIF)

was held in Jakarta, Indonesia, March 4–7, 2010. It was organised by the Asian Productivity Organisation (APO) in close collaboration with the Indonesian Chamber of Commerce and Industry, and the Indonesian Ministry of Manpower and Transmigration. The number of visitors totalled 90,004. There were 164 exhibitors, the most so far. The fair plays a central role in disseminating information on eco-products, eco-services, eco-technology, and eco-business available in the Asia-Pacific region. It is clear that interest in both environmental solutions and environmental businesses are steadily increasing in the region.

CHAPTER 3

GREEN PURCHASING IN THE EUROPEAN UNION

In the previous chapter, we reviewed the efforts made to promote green purchasing by the governments, businesses and international bodies in Asia. This chapter looks at the policies and programmes on green purchasing of public authorities in the European Union.

GREEN PUBLIC PROCUREMENT IN THE EU

This section reviews the practices of green purchasing in the EU. It offers the reader a comparison, if not a benchmark, vis-a-vis such practices in Asia. It covers the following:

- The policy framework, criteria and targets of GPP;
- Innovations in GPP; and
- Green purchasing in the private sector.

Each year, European public authorities spend over €2,000 billion on goods, services and works (equivalent to 17 per cent of GDP). These include office IT equipment, electricity, transport, furniture, textiles, and cleaning and catering services.

Acknowledgment of the need to take environmental considerations into account in various policies has been widely accepted. Alongside, the

potential of GPP as a policy instrument has been increasingly recognised and, over recent years, there has been growing political commitment to GPP at the EU, regional and national levels.

The basic concept of the EU GPP relies on having clear and ambitious environmental criteria for products and services. A number of EU and national (EU member states) criteria and approaches to GPP have been developed the last 10 years.

POLITICAL AND LEGAL BACKGROUND OF GPP

In recent years, many EU policies and initiatives have underlined the importance of GPP. The *Sixth EAP of the European Community*¹ (2002–2012) has identified public procurement as an area which has considerable potential for “greening” the market through public purchases using environmental performance as one of their purchase criteria. The European Commission *Communication on Integrated Product Policy*² (2003) called on EU member states to develop action plans for greening their public

1 For more information: <http://ec.europa.eu/environment/newprg/index.htm>

2 COM (2003) 302 final

procurement – called National Action Plans – by the end of 2006 and asked the European Commission to prepare a practical handbook for use by public authorities.

Changing consumption and production patterns is one of the overarching objectives of the *EU Sustainable Development Strategy – SDS*³ (2001–2011). With adoption of the renewed SDS in 2006, the member states also agreed by 2010 to try to bring the average level of GPP in the EU to that currently achieved by the best-performing member states.

First, legal options for integrating environmental considerations into public-procurement procedures were mentioned in the “interpretative communication” on the EU law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement (2001).⁴ In 2004, the European Council and Parliament adopted two directives aimed at clarifying, simplifying and modernising existing European legislation on public procurement. New public-procurement directives consolidate the legal framework of GPP.⁵ In contrast with the earlier EU directives governing procurement, the 2004 directives contain specific reference to the possibility of including environmental and social considerations in procurement processes and procedures.

To have a practical GPP guideline available for public authorities and contracting parties, the European Commission in 2004 published *Buying Green! A Handbook* on environmental public procurement.⁶ The handbook explains how environmental considerations can be integrated at each stage of public-procurement procedures and contains best practices in GPP throughout the EU.

The European Commission’s *Communication on Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan* (SCP/SIP AP) was launched in 2008.⁷ This document presents the EC strategy for an integrated approach to further sustainable consumption and production and

promote its sustainable industrial policy. The core of the action plan is to improve the energy and environmental performance of products, foster their uptake by consumers and make production cleaner and leaner.

The communication sets out an integrated package of measures to deliver more sustainable consumption and production, while improving the competitiveness of the European economy. It builds on a number of EU policies. Notably, the renewed “Sustainable Development Strategy” identified sustainable consumption and production as one of the key challenges for Europe. The following documents accompanied this action plan:

- Proposal for the Extension of the Eco-design Directive;⁸
- Proposal for the Revision of the Eco-label Regulation;⁹
- Proposal for the Revision of the EMAS Regulation;¹⁰
- Communication on Green Public Procurement;¹¹ and
- Proposal for the Revision of the Energy Labeling Directive.¹²

All above stated documents (except the communication) have gone through the Community regulation process and have been adopted as revised or extended documents in 2009 or 2010.

In 2008, the communication *Public Procurement for a Better Environment*¹³ was published as part of the SCP/SIP AP package. It proposed tools which should overcome the main obstacles to increased take-up of GPP. It provided guidance on how to reduce the environmental impact caused by public-sector consumption and how to use GPP to stimulate innovation in environmental technologies, products and services. The European Commission highlighted in the Communication also the need to develop

3 For more information: <http://ec.europa.eu/environment/eussd>

4 COM(2002)274

5 Directive 2004/18/EC and Directive 2004/17/EC, See an overview of the EU legislation with reference to GPP at: http://ec.europa.eu/environment/gpp/pdf/overview_eu_legislation.pdf

6 http://ec.europa.eu/environment/gpp/buying_handbook_en.htm

7 COM(2008)397

8 http://ec.europa.eu/enterprise/policies/sustainable-business/ecodesign/index_en.htm

9 ec.europa.eu/environment/ecolabel

10 http://ec.europa.eu/environment/emas/index_en.htm

11 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0400:FIN:EN:PDF>

12 <http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2010:153:SOM:EN:HTML>

13 COM (2008) 400, published on July 16, 2008

and endorse common GPP criteria and identified priority sectors for GPP. At the EU level, the commission has set a target that, by 2010, 50 per cent of all public-tendering procedures should be green, where “green” means compliant with endorsed common core EU GPP criteria.

The European Commission has launched in 2008 a web-based *GPP Training Toolkit*.¹⁴ The main aim is to make it easy for member states and procurement practitioners to apply GPP. It is in three modules:

- **Module 1** is strategic, focusing on how to get strong political support, and how to develop a GPP action plan (using the Deming Cycle). It presents information on the EU Eco-label, environmental-management systems, joint procurement and life-cycle costing (LCC).
- **Module 2** gives legal guidance and clear examples on how and where to integrate environmental criteria into the public-procurement tendering process.
- **Module 3** is operational and gives examples of core and comprehensive criteria for 10 product-service groups and background reports on each group. Product sheets/criteria are translated into all EU languages, so purchasers can use them directly in their procurement procedures.

Also, in the future, the commission will be working on improving framework conditions for business to innovate, making “full use of demand-side policies, e.g. through public procurement and smart regulation” and “encouraging wider use of green public procurement.” This has been stated in March 2010, when the European Commission launched the *Europe 2020 Strategy: A European Strategy for Smart, Sustainable and Inclusive Growth*.¹⁵ They are declarative and just recommend the use of GPP, while others include mandatory requirements for GPP. Reference to GPP is also made in various policy documents, such as high-level reports and recommendations and conclusions from the Council and the European Parliament.

14 GPP Training Toolkit: http://ec.europa.eu/environment/gpp/toolkit_en.htm.

15 ec.europa.eu/eu2020

For example, according to the directive on energy end-use efficiency and energy services¹⁶ (2006) the public sector in each member state should set a good example regarding investment in, maintenance of and other expenditures on energy-using equipment, energy services and other energy-efficiency improvement measures. The public sector should also attempt to use energy-efficiency criteria in public-procurement tendering procedures.

The Energy Star Regulation¹⁷ (2008) obliges central governments and EU institutions to purchase IT office equipment that meets energy-efficiency requirements no less demanding than the ones set out for Energy Star.

Furthermore, the Clean Vehicles Directive applies to the purchase of road-transport vehicles. It obliges purchasers to take account of energy use, CO₂ and other pollutant emissions when buying vehicles. This obligation can be met either (a) by calculating and taking into account the external costs of energy consumption, and CO₂ and other pollutant emissions when buying vehicles, using the methodology described in the annex of the directive, or (b) by setting specific technical specifications or award criteria related to energy and environmental performance when purchasing these vehicles.

The re-casted Energy Performance in Buildings Directive¹⁸ (2009) requires member states to ensure that “after 31 December 2018, new buildings occupied and owned by public authorities are nearly zero-energy buildings.”

The newly-revised (2009) EU Eco-label Regulation provides that, whenever eco-label criteria are developed for a certain product or service group, specific guidance for GPP, based on these criteria, will be included in a manual for contracting authorities setting out guidelines for their procurement policy. Products and services awarded the EU Eco-label carry the flower logo, allowing consumers – including public and private purchasers – to

16 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:114:0064:0064:en:pdf>

17 Regulation No 106/2008 of the European Parliament and of the Council on a Community energy-efficiency labelling programme for office equipment (recast version) OJ L/039, 13/02/2008

18 Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings. OJ L 153, 18/06/2010 P

identify them easily. Today, the EU Eco-label covers a wide range of products and services, with further groups being continuously added. Product groups include cleaning products, appliances, paper products, textile and home and garden products, lubricants and services such as tourist accommodation. The EU Eco-label Green Store¹⁹ offers a range of eco-labeled products that can be purchased.

The voluntary nature of the EU Eco-label scheme means that it does not create barriers to trade. On the contrary, many producers find that it gives them a competitive advantage.

The EU Eco-label criteria are not based on one single factor, but on studies which analyse the impact of the product or service on the environment throughout its life-cycle, starting from raw-material extraction in the pre-production stage, through to production, distribution and disposal.

DEFINITION OF GPP

Green public procurement (GPP) is defined in the Communication, COM (2008) 400. It states that “public procurement for a better environment” is “a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured.”

GPP is a voluntary instrument, which means that individual member states and public authorities can determine the extent to which they implement it.

COMMON GPP CRITERIA

Criteria have been developed for product and service groups in 18 sectors which had been identified as suitable for implementing GPP. The criteria are based on existing EU, regional and national eco-label criteria, where appropriate, as well as on information collected from stakeholders of industry and civil society. For each product or service group, two sets of criteria are presented:

- Core GPP criteria address the most significant environmental impacts, and

are designed to be used with minimum additional verification or cost increases; and

- Comprehensive GPP criteria are intended for use by authorities who seek to purchase the best environmental products available on the market. They may require additional administrative effort or imply a certain cost increase as compared to other products fulfilling the same function.

GPP criteria are set up in consultation between GPP experts from EU member states, interested stakeholders and the European Commission services in the criteria-setting exercise.

The 18 GPP criteria developed so far are for construction, food and catering services, office IT equipment, gardening products and services, transport, electricity, cleaning products and services, textiles, furniture, copying and graphic paper, windows, thermal insulation, wall panels, hard floor-coverings, cogenerations (chp), road construction and traffic signs, street lighting and traffic signals, mobile phones.

Member states will be asked to formally endorse these criteria and recommend their use in their national action plans or guidance on GPP.

In 2010, a new criteria-development procedure is being applied. The European Commission proposes to formalise this process of consultation with the aim of achieving more and better GPP based on common-GPP criteria and a common measurement method. The overall objective of the new procedure is to create greater synergy among different instruments (GPP, eco-design, and EU Eco-label).

The new procedure proposed by the European Commission is to be very similar and parallel to the Eco-label criteria-development process. There will be a common basis, based on scientific evidence, for preparing technical reports and criteria for products. This common basis of preparing technical reports and criteria will take into account specificities of each instrument. An informal advisory group for developing GPP criteria has been set up to act as a consultative body to the EU Commission. It comprises one representative from each member state and three representatives of other stakeholders (civil society, industry and SMEs).

¹⁹ <http://www.eco-label.com>

GPP TARGETS AND SITUATION IN EU MEMBER STATES

The European Commission has developed a method for calculating exact levels of GPP, which focuses on compliance with common core GPP criteria and is based on the analysis of a representative sample of tendering procedures. The method has been applied in the seven best-performing member states. In 2011, the commission will evaluate the situation and make a review of the current state of GPP in all 27 EU member states. The results will serve also as the basis for setting future targets.

The study on collection of statistical information on GPP in the EU (2009)²⁰ demonstrates that seven member states (UK, Denmark, Finland, the Netherlands, Austria, Denmark and Sweden) have on average 45 per cent of the total value and 55 per cent of the total number of contracts in 2006–07 green, where “green” means compliant with endorsed common-core-GPP criteria. Analysis also points out that there are neutral costs when using GPP (LCC approach), and 25 per cent decrease of CO₂ emissions.

The review of the 10 national schemes done in a study *Assessment and Comparison of National GPP/SPP Criteria and Underlying Schemes in 10 countries*²¹ (2010) revealed that they are very similar to each other. All were developed with the intention of reducing the impact of public procurement, originally on the environment, and more recently, some schemes have introduced elements to reduce the social impact of public procurement. The current focus is still predominantly on the environmental impact products have.

All countries report that political support is extremely important in driving this area forward and is needed to establish the national scheme. The more-developed national schemes are found where political support is strongest, like in Denmark, the Netherlands and Sweden.

Though the national criteria tend to differ as regards the products covered and their level of ambition, the countries use very similar pools of evidence for the development of criteria. They cite the use of life-cycle analysis (LCA) data where it is

already available, together with eco-labels and the evidence these are based on.

The member states have been encouraged to draw up publicly-available national action plans (NAPs)²² for greening their public procurement. The NAPs contain an assessment of the existing situation and ambitious targets for the next few years, specifying what measures will be taken to achieve them. To date, 21 out of 27 member states have their NAPs adopted. Though the NAPs are not legally-binding, they provide political impetus to the process of implementing and raising awareness of greener public procurement. They also allow member states to choose the options that best suit their political framework and the level they have reached.

In an effort to understand the status of GPP in each state in Europe, the commission maintains a summary of national GPP action plans.²³ The information contained in this includes targets, methods of monitoring, guidelines, training, dissemination, criteria and national action plans for each of the 27 member states, as well as recording the responsible authority.

From this information, it can be seen that some countries have advanced GPP systems with high targets:

- **Austria** has five fixed government targets for 2010: to achieve 95 per cent GPP for IT; 80 per cent for electricity; 30 per cent for paper; 95 per cent for cleaning products and 20 per cent for vehicles. In addition, Austria has the general aim to use at least the core criteria of the EU GPP scheme by 2011.
- **Belgium** intends to achieve 50 per cent GPP at the federal level by 2011. There is also the aim of achieving 100 per cent SPP within the Flemish region by 2020.
- In **Denmark**, 20 product groups have mandatory GPP at central-government level and seven product groups at regional and local levels.
- In **Finland**, the target is for state organisations to achieve 70 per cent GPP by 2010, and 100 per cent by 2015. For municipalities, the corresponding targets are for 25 per cent

20 http://ec.europa.eu/environment/gpp/pdf/statistical_information.pdf

21 http://ec.europa.eu/environment/gpp/studies_en.htm

22 http://ec.europa.eu/environment/gpp/action_plan_en.htm

23 http://ec.europa.eu/environment/gpp/pdf/national_gpp_strategies_en.pdf

GPP to be achieved by 2010 and 50 per cent by 2015.

- **France** has created 15 product-group GPP targets within its national action plan.
- **Germany** compels all contracting authorities to use life-cycle costing (LCC) in their procurement procedures.
- In the **Netherlands**, the federal government and government agencies are each required to achieve 100 per cent GPP by 2010, while the provinces are required to achieve 50 per cent GPP by 2010 and 100 per cent by 2015, and the municipalities are to aim for 75 per cent GPP by 2010 and 100 per cent by 2015.
- In **Sweden**, the target is the production of 60 criteria documents by 2010.
- The **United Kingdom** currently uses SOGE targets, which include the pledge to be carbon neutral by 2012 and to reduce carbon emissions by 30 per cent by 2020.

However, as the use of GPP increases, the criteria used by EU member states need to be more compatible to avoid any market distortion. Having a single set of criteria would considerably reduce the administrative burden for economic operators and for public administrators implementing GPP. Common GPP criteria would be of particular benefit to companies operating in more than one member state as well as SMEs (whose capacity to master differing procurement procedures is limited).

PUBLIC, MULTI-CRITERIA ECO-LABELS (TYPE I, ISO 14024)

These are the most common types of labels and also the most commonly used in green procurement. They are based on a number of pass-fail criteria that set the standard for the label in question. Different sets of criteria are established for each product or service group covered by the scheme. These criteria will normally define the environmental performance that the product must reach and may also set standards.

Examples include:

- The European Eco-label: http://ec.europa.eu/environment/ecolabel/index_en.htm (Annex I lists the product and service groups covered)

- The Nordic Swan, Scandinavia: www.svanen.nu
- The Blue Angel (Blauer Engel), Germany: www.blauer-engel.de
- Umweltzeichen, Austria: www.umweltzeichen.at
- NF Environment, France: www.marque-nf.com
- Milieukeur, the Netherlands: www.milieukeur.nl
- AENOR, Spain: www.aenor.es

KEY AREAS COVERED BY EU FLOWER ECO-LABEL

The key areas covered by the EU Flower Eco-label are:

- **Extraction management (natural products):** Score based on six main indicators, which include water-recycling ratio, quarry-impact ratio, natural resource waste, air quality, water quality and noise.
- **Extraction management (all products):** Extraction-activity report and environmental recovery – mainly relating to habitat and biodiversity issues, and visual impact assessment.
- **Raw materials selection (all products):** Should not contain substances with certain properties, for example, those that may be toxic or harmful to aquatic organisms.
- **Finishing operations (natural products):** Sets out requirements in relation to emissions to air, water and water-recycling ratio.
- **Production process (processed products):** These criteria considered energy consumption for processing and firing of different types of HFCs, water use, air emissions and limits for appropriate parameters including NO_x and SO_x, emissions to water and finally cement.
- **Waste management:** In particular aspects relating to separating and using recyclable materials, recovering materials, and handling and disposing of hazardous wastes. For processed products, a set percentage of total waste must be recovered.
- **Use phase:** This focuses on the release of dangerous substances from glazed tiles, in particular by setting limits in relation to lead and cadmium.

- **Fitness for use:** To be demonstrated by data from appropriate ISO, CEN or equivalent test methods.
- **Consumer information:** This includes recommended use and maintenance of the product and possible recycling or disposal options for the product.

INFORMATION ON GPP

The EU provides information on GPP through its homepage and helpdesk. Additionally, seminars and conferences also provide a platform for the EU to disseminate information on GPP.

HOME PAGE

At the EU Commission GPP homepage (http://ec.europa.eu/environment/gpp/index_en.htm), all relevant information regarding GPP in the EU can be found. These include GPP common criteria, GPP newsletter, news alerts, legal and political framework, guidelines, studies and projects and GPP videos. An overview of the situation in the field of GPP in the EU member states and their GPP home pages can be accessed at: <http://ec.europa.eu/>



HELPDESK

A new helpdesk for GPP has been launched by the EU Commission as of January 2010. Its main aim is to promote and disseminate information about GPP, and to provide timely and accurate answers to stakeholder enquiries. Stakeholders can send their questions by email to gpp@biois.com.

SEMINARS AND CONFERENCES

The ICLEI European Secretariat organised, on behalf of the European Commission, five workshops on green public procurement. The workshops took place between October 2006 and February 2007 in Lisbon, Dublin, Bologna, Avilés and Athens.

National GPP conferences organised in 19 EU member states between October 2009 and July 2010 were part of an initiative launched by the European Commission and executed by the International Training Centre of the ILO (ITCILO) in collaboration with experts from key national authorities, responsible for GPP. The aim of these conferences was to bring together and promote dialogue among all those who play a role in promoting and implementing GPP in their respective countries.

GREENING PRIVATE PROCUREMENT

The definition and criteria used for identifying and promoting “greener” goods are based on a life-cycle approach. They cover elements which affect the whole supply chain, ranging from the use of raw materials and production methods to the types of packaging used and in the respect of certain take-back conditions. These criteria can equally inform private procurement practices.

GPP AND INNOVATION

The EU’s new growth strategy²⁴ from March 2010 includes a blueprint for transforming Europe into an “Innovation Union” by 2020. The initiative “Innovation Union” aims at re-focusing R&D and innovation policy on the challenges facing our society, such as climate change, energy and resource efficiency, health and demographic change.

The EU is committed to promoting GPP because it is effective in promoting the take-up by the market of the green products and services. This results in more sustainable consumption and promotes eco-innovation and, with it, the competitiveness of the EU economy. GPP can also be a powerful instrument for stimulating innovation and encouraging companies and private businesses to develop new products with enhanced environmental performance.

A close link between GPP and innovation has been stressed also in the following documents:

- “Public procurement for research and innovation”;²⁵

²⁴ http://ec.europa.eu/eu2020/index_en.htm

²⁵ More information at: http://ec.europa.eu/enterprise/innovation/documents_en.htm and http://ec.europa.eu/invest-in-research/policy/pub_procurement_en.htm

- “Communication on pre-commercial procurement”²⁶ which examines the potential for public authorities to stimulate innovation by procuring R&D services, which fall outside of the procurement directives, provided the benefit of the services does not accrue exclusively to the contracting authority.
- *The Lead Market Initiative*²⁷ that aims to create favourable framework conditions in order to stimulate innovation, which is crucial for competitiveness, through a mix of public-policy actions. Currently, six markets have been identified, three of which cover environmental topics – namely, sustainable construction, recycling and bio-based products – and are, therefore, of particular importance for GPP.
- *The European Technologies Action Plan*²⁸ (ETAP) aims to address the barriers – such as the complexity of switching from traditional to new technologies and insufficient access to capital – that hinder the development of environmental technologies. The action plan refers to the role of GPP in improving market conditions to promote eco-innovation. Environmental technologies include: renewable energy sources, such as photovoltaic or wind power; cleaner cars; passive houses; environment-friendly construction materials; and the treatment of waste for reuse or recycling. Public procurement is mentioned as an important tool for boosting the uptake of those technologies.

²⁶ *Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe* (COM (2007) 799)

²⁷ See http://ec.europa.eu/enterprise/policies/innovation/policy/lead-market-initiative/index_en.htm

²⁸ Communication from the Commission to the Council and the European Parliament, European Commission, 2004

CONCLUSION

This chapter delved into government-green-purchasing matters in the European Union. In particular, it described the rigorous practices and commitment of the EU in green public procurement. In furtherance of this commitment, the EU has set criteria and targets in GPP. These practices can provide an inspiration for other countries in promoting green purchasing in their respective countries.

CHAPTER 4

GREEN PURCHASING IN THE UNITED STATES OF AMERICA

This chapter deals with the green-purchasing practices of the United States federal government. It highlights the guidelines on environmentally-preferable purchasing (EPP) and the principles involved in determining such purchases.

EPP helps the federal government “buy green”. In doing so, it uses the federal government’s enormous buying power to stimulate market demand for green products and services. Geared first to help federal purchasers, the Environmental Protection Agency (EPA) has set up a website that can help green vendors, businesses (large and small) and consumers to:

- Find and evaluate information about green products and services;
- Identify federal green-buying requirements;
- Calculate the costs and benefits of purchasing choices; and
- Manage green-purchasing processes.

EPA’S GUIDELINES ON EPP

The EPA has developed five guiding principles to provide broad guidance for applying EPP in the federal-government setting. Applicability of these principles in specific acquisitions will vary depending on a variety of factors, such as the type and

complexity of the product or service being purchased, whether or not the product or service is commercially-available, the type of procurement method used (for example, negotiated contract, sealed bid, etc), the timeframe for the requirement, and the dollar amount of the requirement.

These guidelines, entitled *The Final Guidance*, address EPP by executive agencies to meet their obligations to identify and purchase environmentally-preferable products and services. They provide a broad framework of issues to consider in EPP and help executive agencies to integrate systematically environmental-preferability principles into their buying decisions.

“Environmentally preferable” is defined to mean products or services that “have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance or disposal of the product or service.”

The guidelines strive to meet the National Performance Review and Procurement Reform goals of simplifying and streamlining federal purchasing while recognising that the definition of

“environmentally preferable” will likely require the consideration of different environmental factors as appropriate for different situations. They apply to all acquisition types, from supplies and services to buildings and systems.

INTENDED AUDIENCE OF THE GUIDE

The target audience of this guidance includes all executive-agency employees involved in the acquisition of supplies, services, systems, and/or facilities. The general guidance also will be useful to executive-agency employees who request, maintain, or use the supplies, services, systems and facilities. In addition, the guidelines should provide pragmatic direction for businesses which wish to manufacture, market, or provide environmentally-preferable products and services for use by the federal government.

OVERALL APPROACH FOR IMPLEMENTING THE GUIDELINES

In addition to promoting environmentally-preferable purchasing, the guidelines encourage executive agencies to purchase “bio-based” products. Such a product is defined as “a commercial or industrial product (other than food or feed) that utilizes biological products or renewable domestic agricultural (plant, animal and marine) or forestry materials.”

Bio-based products are environmentally preferable because they are made from renewable resources and these products have many positive environmental aspects. As such, these products should be considered by agencies looking to make environmentally-preferable purchases.

However, federal purchasers should not assume all bio-based products are automatically environmentally preferable. As with other products, executive agencies should consider a range of environmental impacts associated with bio-based products when making purchasing decisions. In some cases, factors such as pesticide use or high water consumption might make a bio-based product less environmentally preferable. The list of bio-based products of the US Department of Agriculture will be a good starting point for executive agencies looking to identify environmentally-preferable purchasing.

GUIDING PRINCIPLES

In all acquisitions, executive-agency personnel are required to use their professional judgment, commonsense, and reasonable discretion when assessing a product’s or a service’s performance, cost and/or availability. For example, an extensive life-cycle assessment need not be conducted to purchase rubber bands. On the other hand, for large-volume or systems acquisitions, or for complex products, such assessments may be appropriate, and might already be required. Or, in some cases, much of the information upon which to build such an analysis might have already been collected.

GUIDING PRINCIPLE 1:

Environment + Price + Performance = Environmentally-preferable purchasing

Environmental considerations should become part of normal purchasing practice, consistent with such traditional factors as product safety, price, performance, and availability.

The manufacture, use and disposal of certain products might have an adverse impact on human health and the environment. These impacts impose costs that the purchasing agency, and ultimately, society as a whole, end up paying for in one way or another. For the government, the hazardous or toxic nature of a product or service can result in significant cleanup or liability costs, as well as in less directly quantifiable, but cumulative and persistent environmental damage. Even non-hazardous waste is associated with ever-increasing disposal costs that can be avoided or reduced.

Responsible management, beginning with the initial purchase of products and services that minimize environmental burdens, can diminish the government’s raw material, operating, maintenance, and disposal costs. In addition, a product or service’s environmental preferability can often have positive impacts on its overall performance.

For these reasons, the government’s purchasing decisions are no longer confined to considerations of price and functional performance but should include considerations of environmental performance as well. Today, agencies can obtain improved environmental attributes not at the expense of, but instead may operate in concert with, other traditional factors like price and functional perfor-

mance. Those product or service providers who can optimise all these factors will capture and maintain the largest market-share of government customers.

Just like price, performance, and health and safety, environmental factors should be a subject of competition among vendors seeking government contracts. In turn, this increased competition among vendors should stimulate continuous environmental improvement and increase the availability of environmentally-preferable products and services. The purpose of this guidance is to encourage executive agencies to award contracts to companies that take environmental concerns into account. This process, consequently, will lead to the development of environmentally-preferable products and services that perform better and cost less because they reduce waste and negative environmental impacts.

Agencies have considerable discretion in incorporating environmental preferability into procurement decisions, especially within the context of “best value” contracting. They may even pay a price premium for such purchases. This is not much different than paying a higher price for better performance or quality. Federal personnel may consider paying a reasonable premium for environmentally-preferable products on a number of grounds. For example, a reasonable price premium may be justified because the environmental attributes of a product or service provide offsetting reductions in operating and disposal costs.

GUIDING PRINCIPLE 2: Pollution prevention

A key reason for environmentally-preferable purchasing is to protect the environment by reducing waste and pollution at the source with the resulting benefit of reduced overall cost to the government and the public (taxpayers and society as a whole). So, consideration of environmental preferability should begin early in the acquisition process and be rooted in the ethic of pollution prevention, which strives to eliminate or reduce, upfront, potential risks to human health and the environment. Pollution prevention, the reduction or elimination of waste at the source, not only reduces pollution but also saves money for agencies as well. Furthermore, pollution-prevention measures can lead to a higher degree of environmental protection by reducing subsequent costs for disposal or cleanup of hazar-

dous wastes and materials.

Under this guiding principle, pollution prevention should be the primary motivation and strategy for the government’s implementation of environmentally-preferable purchasing.

GUIDING PRINCIPLE 3: Life-cycle perspective and multiple attributes

A product or service’s environmental preferability is a function of multiple attributes from a life-cycle perspective. Agencies are required to consider the following concepts in applying this principle:

Life-cycle perspective

A product or service has environmental impacts long before and after the government purchases and uses it. The manufacture, use, distribution, and disposal of products create a variety of burdens on the environment. Agencies should strive to purchase products or services with as few negative environmental impacts in as many life-cycle stages as possible.

In other words, agencies should determine the “environmental preferability” of a product or service by comparing the severity of environmental damage it causes throughout its life cycle with that caused by competing products – from the point of raw-materials acquisition, product manufacturing, packaging, and transportation to its use and ultimate disposal.

By doing so, the federal government can minimise the overall environmental impacts of products and services. In addition, by actively seeking and considering life-cycle information to inform buying decisions, agency personnel can send a clear signal that government business will go to those who consider the effect of their product’s life cycle on the environment.

Multiple environmental attributes

Environmental preferability should reflect the consideration of multiple environmental attributes such as increased energy efficiency, reduced toxicity, or reduced impacts on fragile ecosystems. In addition, these attributes should be considered from a life-cycle perspective. Focusing on one environmental attribute of a product or a service, without considering others, might inadvertently exclude important impacts on the determination of

environmental preferability. For example, improving one attribute (like, increased energy efficiency or reduced toxicity) may result in other unintended environmental life-cycle impacts. Analytical tools such as life-cycle assessment can help agencies ensure the product or service they purchase does not create new problems for some other aspect of the environment by identifying other potential negative impacts that should be alleviated.

Although the determination of environmental preferability should be based on multiple environmental attributes, agencies may at times make purchasing decisions based on a single attribute when that attribute distinguishes the product or service in a category.

GUIDING PRINCIPLE 4:

Comparison of environmental impacts

Determining environmental preferability might involve comparing environmental impacts. In comparing environmental impacts, agencies should consider the reversibility and geographic scale of the environmental impacts, the degree of difference among competing products or services, and the overriding importance of protecting human health.

GUIDING PRINCIPLE 5:

Environmental-performance information

To help determine whether a product or service is environmentally friendly, an agency must have comprehensive, accurate, and meaningful information about the environmental performance of products or services. Agency personnel are encouraged to seek, and product and service providers are encouraged to provide, life-cycle-based information about the environmental performance of products and services.

Product and service providers' disclosure of environmental information about their products and services will also foster competition and encourage a market-driven approach to environmental improvement. The accessibility of the information to the public (both agency personnel and the general public) will help ensure its accuracy and credibility.

AGENCY IMPLEMENTATION

This section recommends steps that each agency can take to implement environmentally-preferable purchasing guidelines.

POLICY DIRECTIVE AND AFFIRMATIVE PROCUREMENT PLANS

Recognising that effective implementation of environmentally-preferable purchasing will require clear direction and support from the top levels of each agency, *The Final Guidance* recommends that each agency issue a policy directive promoting the practice. The policy directive should include the elements listed below:

An overall statement of policy

- Agency personnel should seek to reduce environmental damage associated with their purchases by increasing their acquisition of environmentally-preferable products and services to the extent feasible, consistent with price, performance, availability, and safety considerations;
- Environmental factors should be taken into account as early as possible in the acquisition planning and decision-making process; and
- Responsibility for environmentally-preferable purchasing should be shared among the programme, acquisition, and procurement personnel.

Commitment to action

Action should be taken to:

- Increase the acquisition of environmentally-preferable products and services;
- Establish affirmative procurement programmes for purchasing EPA-designated recycled products;
- Identify and implement pilot projects;
- Establish internal-agency incentive and award programmes to recognise those people, teams, and inter-agency work groups who are most successful; and
- Encourage EPP collaboration among agencies to provide education and training.

In order to minimise the burden on agencies, the EPA recommends that each agency incorporate in its policy directive to promote EPP in its affirmative procurement and strategic plans.

PILOT PROJECTS

Agencies are encouraged to immediately test and evaluate the principles and concepts contained in the EPA guidelines through pilot projects to provide practical information to the EPA for further updating of the guidelines. To help agencies implement the guidelines, *The Final Guidance* includes some suggested steps for initiating and implementing pilot acquisitions.

Additional pilot acquisitions will be important testing grounds for applying the guiding principles and testing their applicability. The pilots will also provide valuable information for the development of tools and resources to facilitate widespread adoption of environmentally-preferable purchasing practices.

The EPA tracks pilots that are planned or already underway on the EPP website, providing a clearinghouse for information on government-wide activities related to EPP including information about different pilots, updates, and fact sheets to ensure that lessons learned are shared and used to inform other pilot projects.

More specific information about pilot implementation are made available through a variety of tools that the EPA currently is developing including an interactive training module, a “best practices guide” with examples of specific contract language that have been used by purchasing agencies, and a database of existing environmental standards that have been developed by governmental and non-governmental entities.

Agencies are also required to use both domestic and international voluntary consensus standards in lieu of government-unique standards in their procurement and regulatory activities, except where it would be inconsistent with applicable laws or otherwise impractical. This is to reduce the cost of procurement and regulation that might otherwise arise through inventing a new standard. Some of those standards might relate to evaluating environmental performance and measuring the environmental attributes of products or services.

An agency can also participate in the standards-setting activities of voluntary consensus standards bodies. Such participation helps ensure the development of standards that meet the agency’s needs, including those related to EPP concerns. This collaboration can also promote national goals and objectives.

In the long run, institutionalising the purchase of environmentally-preferable products and services requires that agencies continue their efforts after the pilots are completed. Given that environmental information about products and services is still scarce, agencies should rely on all sources of information and technical expertise in making determinations about environmental preferability.

To encourage agencies to continue to acquire “green” products, the EPA will coordinate the development and standardisation of environmental information about potential product and service categories for future pilots. This effort will consist of identifying environmental-performance characteristics and measurement methods and will involve technical experts both inside and outside the government. Agencies should examine all information generated through these types of efforts. The agencies, and not the non-governmental entities, must make all final determinations regarding environmental preferability.

The experience gained from agency pilots will be key in determining the scope and nature of the EPA’s long-term activities to advance federal EPP. The lessons learned and partnerships formed from these pilots will help establish a broader infrastructure to support this initiative. EPA might use existing mechanisms or help develop new resources such as guidance, networks, and databases in support of the federal purchasing community to build this infrastructure. The infrastructure will help bridge the gap between the environmental and procurement expertise within the agencies.

All agency personnel will have a role in creating a demand for environmentally-preferable products and services. Thus, the infrastructure will also have to support the development of tools that are easy and convenient for general and diverse use. In the light of the evolving acquisition landscape and the dynamic nature of the marketplace, the infrastructure will have to be flexible.

The increasingly-globalised economy and trends toward commercialisation of the federal marketplace, will require agencies to coordinate this initiative with new international-trade and standardisation developments. Ultimately, the measure of this initiative’s success will be in the increased availability and purchase of products

and services that pose fewer adverse impacts on human health and the environment.

PRODUCT- OR SERVICE-SPECIFIC GUIDES

The following guides on green purchasing are available to manufacturers, suppliers and the public on how they can make purchasing decisions:

- ***Environmentally-preferable Purchasing Guide:*** These guides for green purchasing information describe the challenges, successes, and resources associated with a specific product or service, focusing on how to incorporate environmental considerations into purchasing decisions.
- ***Whole Building Design Guide:*** This is a comprehensive, Internet-based portal to a wide range of federal and private-sector building-related guidance, criteria, and technology, including guidance and resources on sustainable design.

CONCLUSION

The guidelines discussed above apply to federal agencies of the United States. They provide a useful reference to how to conduct green purchasing. The next chapter puts together the experiences throughout Asia, Europe and the United States to offer what must be done and what exist for green purchasing to be successful.

CHAPTER 5

CRITICAL SUCCESS FACTORS IN GREEN PURCHASING

Based on the various country experiences in green purchasing, this chapter will distil the critical success factors in green purchasing. It will also offer an outlook on its future.

RELATIONSHIP AND SYNERGY BETWEEN GGP AND ECO-LABELING

Based on the international experiences described in the preceding chapters, GGP can have a synergistic relationship with eco-labeling. The latter may be used effectively to fill the information gap, clearly identified by many government purchasers as a major obstacle in implementing green procurement. This could be done through the adoption of eco-labeling product criteria in the tendering language and technical specifications for government procurement or even direct identification of eco-labeled products as green products.

On the other hand, the practice of GGP often has a tremendous effect on the growth of eco-labeled products which would otherwise have a fairly-small market share. Once their product categories are listed as a purchase target in a GGP programme, the sales and market of a specific eco-labeled product may receive a fairly significant boost. This is because a government mandate

offers government purchasers concrete and solid incentive to purchase the eco-labeled product.

Also, in deciding on the targeted product categories, the GGP and eco-labeling programmes often look to each other in deciding future product categories to work with. The GGP programmes will often pick product categories that are available in an eco-labeling programme. And, when a government selects product categories that are not yet in an eco-labeling programme, the latter would often have to work hard to develop product criteria for such a category.

Thus, GGP and eco-labeling work hand-in-hand and complement each other in filling the information gap for green products and services. Moreover, the GGP may significantly increase consumer awareness of such eco-labels – the mere mention of eco-labeling or GGP provides a significant boost and raises awareness of the existence of such a programme. In addition, since GGP programmes typically have some performance-tracking mechanisms, they help the eco-labeling programme in tracking its implementation effectiveness.

Nonetheless, the coupling of the two programmes has been criticised for reducing the voluntary nature of eco-labeling which had been thought of as a means of encouraging manufacturers to voluntarily

reduce their products' negative environmental impact. As such, its association with GGP makes it more like a place for the government to exercise its legal power. Thus eco-labeling programme requirements may become more and more stringent and increasingly less cost-effective.

KEY ELEMENTS FOR SUCCESS IN PROMOTING GGP

In 2006, the European Commission and the Global Eco-labeling Network (GEN) conducted two separate surveys on key members with regard to their GGP activities to find out how best to promote GGP. The two surveys found several key elements in ensuring GGP success. These critical success factors include the following:

- **Commitment and support from top-level management and purchasing department personnel:** To promote sustainable public procurement, leadership is needed. Senior-level support can enable the necessary changes in regulations and influential champions can help to promote and embed sustainable public procurement and ensure that resources are provided for delivery. In addition, organisations that excel in sustainable procurement can demonstrate leadership by sharing best practice and encouraging others.
- **Policy through procurement:** Procurement can be a means to achieve a wide range of objectives of an institution. Whilst it is possible to achieve good sustainable public procurement (SPP) results without a policy, clear and consistent policies that explain organisational objectives help procurers to make good procurement decisions. Policy makers need to understand how procurement works, so that they can produce policies that procurers can implement. Likewise, procurers should be involved at the early stages of policy development, so that they can advise on implementation.
- **Enabling delivery:** Policy makers, politicians, internal customers, suppliers, contractors as well as procurers all have a role in enabling delivery. Early engagement of the market in the process is important to maximise

the opportunities for more sustainable and innovative solutions. The SPP requires the communication of a consistent message designed for the needs of various internal and external audiences. SPP should be supported by clear lines of accountability, with incentives and penalties for delivery.

- **Implementation:** The SPP must be based on the principle of continuous improvement and on a life-cycle approach. A risk-based approach can help target the areas of highest impact or priority, while combining with a “quick wins” approach can demonstrate immediate success. Integrating SPP into organisational-management systems, including environmental-management systems, helps in making it part of routine procurement practice.
- **Green product availability:** There must be an adequate number of green products available for purchasing personnel to choose from.
- **Green product information:** Strong efforts must be made to ensure impactful dissemination of green-purchasing information.
- **Task force:** It is important to establish a specific task force to promote green purchasing.
- **Targets:** Efforts must be made to establish specific objectives, targets and programmes for green purchasing implementation.
- **Trained and qualified personnel:** Having experienced staff in green purchasing is a priority as the industry would need them to train others and design and audit a product or service so that it can be listed in green-purchasing-network directories.
- **Criteria for green products:** The identification of green products should be based on a scientific method that is open, credible and fair.
- **Adequate accounting and budget rules:** These will help serve as a strong guide and allow for measurement and become a gauge for the success or failure of the programmes.

The same surveys also identified several common factors why some GGP programmes did not proceed as expected. These factors include:

- Decentralisation of purchasing power which lessens control;
- Lack of life-cycle cost consideration in

- reaching purchasing decision;
- New procurement regulations;
- Complex bidding procedures;
- Price preferences that are difficult to implement;
- Preference for known suppliers; and
- Fear of being challenged by non-green product suppliers.

To counter these difficulties, the GEN survey observed that the mandatory GGP programmes implemented in several Asian countries may be more effective when coupled with specific objectives and targets, designated product categories, eco-labeling product criteria and mandatory performance tracking and reporting scheme.

FUTURE OUTLOOK

Environmental concerns have begun to influence public-corporate behaviour in favour of green purchasing. Buyers are increasingly demanding proof of environmental responsibility from all those who are in the supply chain. While product-related environmental requirements like eco-labels have been a part of business stipulations for quite a while, now, process-related certifications are also gaining currency internationally.

Such certification relates to, among others, organic and sustainable farming, floriculture, forestry and marine food. The listing of green products and services by national green-purchasing networks will propel more companies to go green as consumers fall back on these lists to inform their purchases.

As discussed in Chapter 2, there are three key policy tools in the promotion of green purchasing, and their combined effect can best be observed from the Japanese experience:

- The first tool is the EcoMark Type-I eco-labeling programme started in 1989.
- The second tool, the green-purchasing network, was initiated in 1996. Its successful implementation experience has resulted in the formation of the IGPN and serves as the role model for other national GPNs in Asia.
- The third tool includes both the *Green Purchasing Law* and the *Green Contract Law*.

The three tools complement each other and provide both “push” and “pull” forces for promoting

green purchasing.

With the successful implementation of mandatory GGP programmes in many Asian countries discussed in this paper, the GGP can be regarded as pretty well-established in these countries. The most prominent evidence of the impact of implementing GGP will probably be the marked increases in sales of eco-labeled products when they are designated as priority procurement items in GGP schemes as reported in these countries. However, despite the success of these programmes, there is still plenty of room for improvement in GGP, as the designated GGP product categories tend to be quite limited. This, in turn, hampers the GGP from having a greater overall impact upon the environment.

Moreover, notwithstanding the growth in green products due to implementing GGP, there is little documented evidence of the impact of green purchasing in the private sector. To further enhance the positive impact of GGP on the environment, there are two future directions that should be taken for green purchasing, namely “greening the supply chain” and “private-sector green procurement”.

At present, green-product suppliers are just asked to provide products and services which meet specific environmental criteria. However, in the future, the suppliers may be required, or encouraged, to ensure that they, and their suppliers, practise environmental management systems which include green procurement. In other words, in addition to their finished products, their components and their purchased services may also need to have lower environmental impacts. The requirement on greening the supply chain may be found in future revisions of environmental criteria in government procurement tendering language and/or the promotion of green purchasing networks.

Green purchasing will receive an even greater boost if manufacturers and suppliers are required to collect back from consumers the products they had sold them in the first place. This happens at the end of the products’ life cycle, when they are no longer useful and are about to be discarded. Many of them are difficult to dispose of in an environmentally-sound way. They include TVs, mobile phones, computers, electronics, pharmaceuticals, plastics, batteries, tyres and used oil. The manufacturers and distributors would then be required to dispose of this waste responsibly. Such waste would,

otherwise, have headed to landfills where their disposal might not be environmentally sound.

Requiring companies to become responsible for the disposal of their products completely “greens” the end-of-life of a product. It would also force manufacturers to design environmental-friendly products, such as those that forego unneeded packaging, and those that can be recycled or reused in large measure. They should create minimal waste, if at all, once they are completely used and about to be disposed of.

This extended-producer-responsibility scheme will internalise within the retail price, the true cost of a product (which would include waste management). Since manufacturers are financially responsible for waste management, they would seek to reduce cost to remain competitive. This, in turn, drives design innovations to produce products that give rise to minimal waste upon obsolescence. For example:

- In **Japan**, electrical and electronics equipment manufacturers have made material substitutions to increase the recyclability of their products. Many have replaced plastic housings with magnesium alloys – a more recyclable material – for TV cabinets and personal computers. These manufacturers too have standardised the types and grades of plastics used in their products to ensure greater recyclability. Several manufacturers too have adopted modular designs to facilitate component reuse.
- Car manufacturers in **Sweden** have established lists of substances to be phased out and have worked on improving vehicle design for quicker disassembly and better recycling.

Indeed, many governments have adopted extended-producer-responsibility laws which put the burden on manufacturers to ensure their products stay out of the waste stream. For example:

- In **Germany**, manufacturers are liable for their packaging waste. So, they are trimming on packaging.
- In **Europe**, producers are required to take back and recycle batteries, packaging, vehicles and electronic products.
- In **Japan**, producers are required to recycle cars and electronic products. Japan’s end-of-life vehicle law requires manufacturers to

further recycle that material left over after recycling of metal and other materials – with a recycling rate of 50 per cent by 2010 and 70 per cent by 2015. As such, Japanese car manufacturers are increasingly using more easily-recycled materials – such as thermo plastics – in instrument panels and bumpers, and recycled materials in making noise buffers in new cars.

- In **Canada**, many provinces have laws that require producers to take back paints, batteries, tyres, packaging and electronics.
- In the **United States**, there are 50 take-back laws in 31 states for products such as unused paints, electronics, batteries, mercury-added thermometers, fluorescent lights and carpets.
- The 1997 packaging-waste regulation of **Britain** requires producers to recover and recycle a specific percentage of their packaging waste, with percentage increases each year. In 2008 that percentage was 70 per cent recovery rate and 67 per cent for recycling. There are separate targets for each material.
- The law in **India** requires manufacturers to reduce hazardous material in electronic and electrical appliances and bans the import of all used electronic equipment for charity.

Malaysia too plans to legislate extended-producer responsibility. To be effective such a law must specify:

- Product take-back and recycling targets;
- Whether producers are to be individually or collectively responsible for returned products;
- Whether producers may charge a fee when they take back products. Ideally, there should be no fee for such product stewardship, lest consumers decide to dispose of the waste themselves; and
- A framework where responsibility is appropriately shared between industry, recyclers and consumers.¹

Following the success of the mandatory GGP programmes in many Asian and European countries,

¹ Tan Cheng Lee’s articles “Shifting the burden” and “Driving better design” in *The Star*, September 7, 2010, pp T2, T3.

the promotion of private-sector green procurement is the natural next step. However, since private green purchasing can only be voluntary in nature, incorporating some obvious incentives in these promotional efforts, through organisations like GPNs, will be a huge policy challenge for governments.

Even though some concerns, such as loss of some voluntary nature, may occur when coupling eco-labeling with GGP, the advantages still outweigh the disadvantages in promoting eco-labeling and green procurement together. This is because the two tools can be synergistic and complementary in providing the best combination of information, visibility and awareness.

SOCIALLY-RESPONSIBLE PURCHASING

Increasingly, both private and public organisations face growing attention from their stakeholders with regard to their social performance. This attention focuses not only on the treatment of employees and the communities in which the organisations themselves operate, but also increasingly on the social profile of their suppliers.

The role of businesses in the context of sustainable development is changing. The idea that companies have both environmental and social responsibilities has existed for a long time. The most recent interpretation of this idea, social responsibility (SR), has been triggered by increasing stakeholder awareness and interest in the social, environmental, and ethical consequences of corporate practices in several tiers of the supply chain. Even public organisations are now experiencing scrutiny from the public. Over time, this attention has compelled public organisations to incorporate non-economic criteria into their procurement and purchasing practices. This is usually referred to as socially-responsible purchasing (SRP).

There is an abundance of literature on incentives for organisations to engage in SR activities. However, a connection to purchasing is still lacking in the literature on SR. Furthermore, the upcoming international standard on SR, ISO 26000, contains limited guidance on SRP other than defining the concept of sustainable procurement. So far, limited knowledge and practical experience exist, and little has been studied regarding the incorporation of social aspects into procurement activities by both

businesses and public organisations.

The literature indicates that initiatives to systematically implement social responsibility in purchasing are fairly new. However, attempts to integrate social considerations are taking place in both private and public organisations. Among the authorities, practices so far have been found to be quite limited. The extent of deployment and integration of policies and codes regarding social responsibility in the private sector has been found to differ significantly from organisation to organisation. However, some progress was detected – the rate at which social requirements are integrated in procurement has been found to be higher than for corresponding environmental requirements.

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We have come to the end of this book. What we hope to accomplish through this book is to inform the reader of the practices across the globe in green purchasing. We hope it will also stimulate a new discussion on green purchasing. If this book helps in some way to promote a green revolution in Malaysia and beyond, we shall consider it a success.

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