

# Report of The Research Study on The Current Status and Direction for Green Purchasing in Hong Kong

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## Preface

The Green Council (GC), a Hong Kong based non-profit, non-partisan environmental organization with charitable status, was established in 2000. Since then, its officials have strived to (1) encourage and assist the industrial and commercial sectors to include environmental protection in their production and management processes; and (2) promote and provide public environmental education. Of particular note, GC officials have actively promoted and attempted to guide the production, marketing, selection and use of environmentally preferable products through delivery of the Hong Kong Green Label Scheme<sup>1</sup> (HKGLS) and green purchasing through the establishment and administration of the Hong Kong Green Purchasing Charter<sup>2</sup> (HKGPC).

As stated in the GC motto – “*Conservation Begins with Education*” – GC officials contend that introducing and enhancing environmental awareness and consideration is a key to protecting the environment. In this regard, GC officials have and continue to focus upon the following six main project/activity areas:

- providing environmental education and training;
- encouraging “green” (i.e. environmentally responsible) procurement -- greener products and services promotion, identification, consideration, selection, purchasing and use;
- promoting “green” (i.e. environmental/sustainable) management concepts and practices;
- advocating re-use and waste avoidance / reduction / recycling;
- encouraging energy conservation and promoting renewable energy alternatives; and
- promoting sustainable development, production and consumption.

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<sup>1</sup> For details regarding the Hong Kong Green Label Scheme (HGLS), visit [www.greenlabel.org.hk](http://www.greenlabel.org.hk).

<sup>2</sup> For details regarding the Hong Kong Green Purchasing Charter (HKGPC), visit [www.hkgpc.org](http://www.hkgpc.org).

Since the 1990s, green purchasing has been perceived and increasingly embraced globally as an effective tool in lessening environmental burdens related to product production and consumption. In 2006, GC officials conducted a Hong Kong private sector “opinion study”<sup>3</sup> that identified there were general interest and broadly positive attitudes and opinions regarding green purchasing. However, the study also identified that there had been limited implementation and no substantial investigation and / or guidance publications generated relating specifically to private sector green purchasing in Hong Kong. As a result, and with support from the Environment and Conservation Fund (ECF) under its “Environmental Research, Technology Demonstration and Other Project” Programme, GC officials have undertaken this 2009 follow-up study in order to investigate, analyze, and critique Hong Kong businesses’ green purchasing promotional and implementation efforts to date.

While it is desirable for the Government and other interested parties to be aware of, and for business and industry green purchasing advocates and practitioners to be recognized for their efforts and accomplishments to date, it is important and timely to determine what else can and should be done to substantially and effectively advance green purchasing.

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<sup>3</sup> *Green Council (2006) Results on the Green Purchasing Survey 2006*, 8pp. Retrieved on November 25, 2009 from [http://www.hkgpc.org/html/eng/doc/2006survey\\_results.pdf](http://www.hkgpc.org/html/eng/doc/2006survey_results.pdf).

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GC officials are also grateful to Mr. Anthony Chau, Mr. Eugene Chau, Mr. Chris Cheung, Ms Fanny Lee, Ms Peggie Ho, Hong Kong Green Purchasing Charter (HKGPC) members, Hong Kong Green Label Scheme (HKGLS) licensees, Green Council corporate members, and the respondents from over 206 companies (including 104 small and medium enterprises (SMEs) and 102 large corporations) for their input, comments and other contributions to this report.

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Green Council

## **1. Background**

Since 1999, and as clearly stated in the Chief Executive's 1999 Policy Address, the HKSAR Government has been endeavouring to transform Hong Kong into a world-class city and making Hong Kong a clean, comfortable and pleasant home by working hand-in-hand with all sectors of the community in order to achieve a sustainable future for Hong Kong.<sup>4</sup>

In 2000, the Stores and Procurement Regulations (SPR) were amended to require Government departments to give consideration, as far as possible and where economically rational, to purchase products with improved recyclability, higher recycled content, greater energy efficiency, reduced use of toxic substances, etc. Since 2000, the Government Logistics Department (GLD) has developed green specifications for a range of commonly procured products included recycled papers, environmentally preferable cleaning materials, clean fuels, etc.

Under "A Policy Framework for the Management of Municipal Solid Waste (2005-2014)"<sup>5</sup>, which was published in December 2005, the HKSAR Government pledged to develop and adopt a Green Purchasing (GP) policy (as one of the eleven green initiatives on the management of municipal waste), in order to provide direction and guidance to governmental officials in the selection, purchase and use of environmentally preferable products and services which are produced, offered and usable in sustainable manners without unnecessary sacrifices on quality of life or the environment. In 2006, this objective was re-enforced when the Chief Executive, in his annual public policy address,

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<sup>4</sup> Source: HKSAR Sustainable Development Homepage -- <http://www.susdev.gov.hk/html/en/sd/index.htm> (Retrieved on November 25, 2009).

<sup>5</sup> EPD (2005) A Policy Framework for the Management of Municipal Solid Waste in Hong Kong (2005-2014). Retrieved on November 25, 2009 from [http://www.epd.gov.hk/epd/msw/htm\\_en/content.htm](http://www.epd.gov.hk/epd/msw/htm_en/content.htm).

formally encouraged the trade and industry sectors to develop and implement green procurement methods in their operations<sup>6</sup>.

In April 2009, the Chief Executive emphasized that the HKSAR has clear advantages in industrial environmental performance (one of the six economic areas). In follow-up, Central Policy Unit representatives emphasized the importance of research and development (R&D) endeavours, and identified that the Government must be responsible for playing a leading role in promoting industrial environmental performance advancement and leadership along with GP. After a June 2009 Task Force on Economic Challenges Meeting, the HKSAR Chief Executive announced in his *Policy Address 2009-10* that the Government will expand the scope of GP and take the lead in making Hong Kong a green city through legislation and specific green measures.

While Government officials have adopted a GP policy and are proceeding with the incorporation of green public purchasing processes and activities, GP is not yet well established or broadly engaged in within the private sector. For example, while a large corporation with a well developed broad environmental considerations strategy and related processes may have already developed GP policies and strategies in order to consider, select, purchase and use environmentally preferable products and services in its operations, a small enterprise may not have resources to put priority on purchasing environmentally preferable products. Following, and complementary to the Government's lead role on GP, Hong Kong businesses and organizations should consider and contribute to environmental sustainability through engagement in GP during their operations.

A public survey on GP in Hong Kong<sup>7</sup> was conducted by the Green Council (GC) officials between August and October 2006. A majority (i.e. 75%) of respondents expressed a willingness to both consider and pay more for green products. However,

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<sup>6</sup> Chief Executive (2006) Policy Address 2006-07. Retrieved on November 25, 2009 from <http://www.policyaddress.gov.hk/06-07/eng/p66.html>.

<sup>7</sup> *Green Council (2006) Results on the Green Purchasing Survey 2006*, 8pp. Retrieved on November 25, 2009 from [http://www.hkgpc.org/html/eng/doc/2006survey\\_results.pdf](http://www.hkgpc.org/html/eng/doc/2006survey_results.pdf).

among these, more than half of the respondents (i.e. 59%) identified difficulties in locating appropriate and desirable alternative “green products”. A resulting conclusion was there were not enough incentives for Hong Kong suppliers, distributors and manufacturers to import / produce green products. Looking ahead, it was proposed that if the broad private sector did become actively engaged in GP (i.e. notably demand for and purchase of such products), there could be substantial and highly beneficial advancements and results in the areas of GP, green product production and provision, and green product marketing in Hong Kong and internationally.

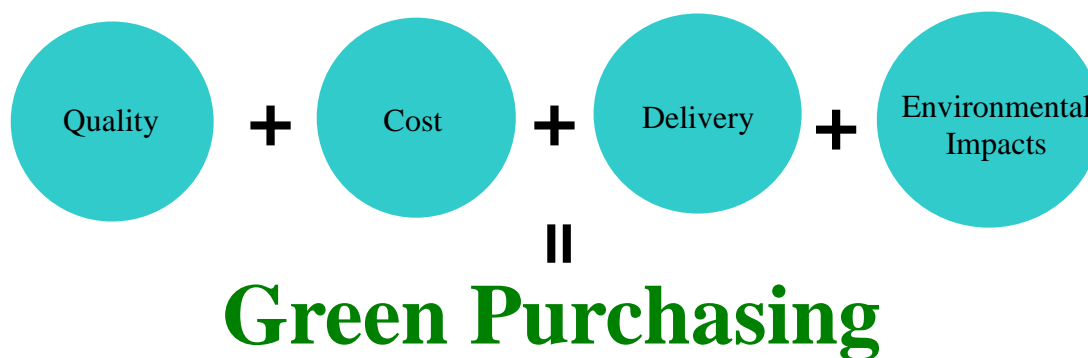
Besides the 2006 “opinions study” conducted by GC officials, there have been no substantial investigations or publications generated relating specifically to GP for business in Hong Kong. Last year, it was determined and discussed by various GP advocates and proponents that there was an immediate need to investigate, analyze, and critique private sector green purchasing promotion and implementation efforts. Further, a view that gained increasing support was that while Government and private sector officials should recognize and be recognized for their efforts and accomplishments to date, it was becoming increasingly important and desirable to assess and determine what else could and should be done to substantially and effectively advance GP in the near future. Consequently, and through sponsorship from the Environment and Conservation Fund (under Environmental Research, Technology Demonstration and Conference Projects), GC officials undertook and completed a pertinent 2009 survey – “*Current Status and Direction for Green Purchasing in Hong Kong*”.

Consistent with the core objective of identifying GP achievements and shortcomings in Hong Kong to date, this survey has investigated and determined the current status of GP in the Hong Kong private sector. Through supplemental research and consideration of comparable GP efforts and accomplishments by local large corporations and in other jurisdictions, a series of recommendations on how to proceed with strengthening and

advancing green purchasing in Hong Kong have been formulated and provided, through this report and other means, to appropriate policy-makers, government procurement officials, industry and business leaders, and other interested parties.

## 2. Introduction

“Green Purchasing”, which is often also referred to as “green procurement”<sup>8</sup>, basically means purchasing products or services which minimize or provide positive environmental impacts. It involves considering the full costs and environmental consequences of a product in all stages of its life cycle, from product development and manufacturing, through distribution and use, to the recovery and / or ultimate disposal of whatever remains of the product at the end of its life span.



Sustainable development refers to development that meets the needs of the present without compromising the ability of future generations to meet their own needs<sup>9</sup>. In addressing purchasing requirements while pursuing sustainable development goals, there has been increasing attention and effort given by both public and private sector organizations and officials to factoring environmental considerations (alongside economic and social concerns) into core purchasing strategies, policies and directives. In this regard, GP has

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<sup>8</sup> Around the world, the terms “green procurement” and “green purchasing” are both used frequently and often interchangeably to categorize strategies, initiatives and actions involved in or related to identification, selection, investigation, acquisition, use and proper handling (i.e. pre and post consumption) of environmentally preferable (i.e. less environmentally harmful) products and services.

<sup>9</sup> United Nations (1987). Report of the World Commission on Environment and Development. General Assembly Resolution 42/187, December 11, 1987. Retrieved on September 29, 2009 from <http://www.un.org/documents/ga/res/42/ares42-187.htm>.

been recognized and embraced as an important contributor to sustainable development advancements and achievements.

A significant point is that GP is not only an environmentally responsible practice, but also can have economic benefits for practitioners (e.g. lower operating costs, avoided waste disposal costs, reduced energy use and costs, etc.). Another potential benefit is that the adoption and implementation of GP can help companies establish, maintain and promote positive and broader Corporate Social Responsibility (CSR) images.

Interestingly, while private sector GP has been practiced internationally for some time, it has not been strongly promoted and reported. Within Hong Kong, while there have been some promotional efforts and preliminary reporting made in and / or by the public sector, there has been very limited investigation, reporting and information sharing regarding private sector officials' levels of interest and willingness, as well as practices and initiatives contemplated and implemented. This situation has been especially noteworthy with respect to large corporations and their management officials who potentially have the collective power to influence and alter product offerings and preferences in the marketplace.

Under these circumstances, a position was reached in late 2008 by key government, business, industry and Green Council officials that it would be quite timely and desirable to have undertaken a comprehensive and analytical baseline study in order to identify and assess:

- the actual nature and extent of private sector GP implementation in Hong Kong;
- corresponding impacts;
- obstacles and challenges encountered;
- lessons learned; and
- achievements and shortcomings to date.

In association with this domestically-focused investigative work, it was deemed appropriate to also have undertaken several case study reviews of GP efforts and activities in other select countries' private sectors. Subsequently, Green Council officials were commissioned to undertake the research, report on findings and analysis, and formulate a series of conclusions and recommendations for dissemination to appropriate public and private sector officials as well as other interested parties.

### **3. Methodology**

#### ***3.1 Literature Review and Data Collection***

In many developing and developed countries, government sector GP practices are well underway and documented, and examples of private sector initiatives have been reported. Consequently, a comprehensive literature review on GP strategies and practices in other jurisdictions around the world (particularly in Asian and European countries) was conducted.

#### ***3.2 Surveys***

A set of two "companion" (i.e. inter-correlated) questionnaires was developed and applied in order to investigate procurement status (e.g. procurement policies, initiatives, barriers, limitations, successes, and strategies going forward, etc.) in the public sector (e.g. the Government Logistics Department, the Environmental Protection Department, etc.), private sector (i.e. both small and medium size corporations [SMEs] as well as large corporations), and elsewhere. The survey was conducted in the following two phases:

##### **3.2.1 Phase I – February to October 2009**

A short questionnaire with nine questions (*refer to Appendix I for a sample of the questionnaire*) was prepared and distributed in three formats - an online version, MS Word

and PDF to target groups based upon known and appropriate contacts of the GC as well as identified contacts of the supporting organizations. Questionnaires were distributed and returned through means of email, facsimile communications and mail during the period from February to October 2009. At the same time, the questionnaire was posted on the GC and Hong Kong Green Purchasing Charter (HKGPC) websites in order to expand the spectrum of the potential recipients. As a further measure to increase the response rate and ensure responses from key sources, phone surveys were conducted incorporating the simple questionnaire.

### 3.2.2 Phase II – April to October 2009

In order to acquire a more in-depth awareness of the extent and nature of private sector GP considerations and practices, 30% of the Phase I respondents were selected for supplemental face-to-face or telephone interviews that incorporated a more extensive and comprehensive questionnaire (*refer to Appendix II for a sample of the questionnaire*). These respondents were selected based upon (i) their willingness to undergo the follow-up interview and (ii) identification in Phase I that they (and / or their companies/organizations) had already initiated GP practices. For instance, interviews were arranged and conducted with representatives of locally recognized outstanding green purchasers including the founding member organizations of the HKGPC.

Further, purchasing managers / authorities within the consulted companies (whether they had personally participated in the Phase I survey exercise or not) were generally identified and asked to provide or contribute to the responses in order to obtain more in-depth and precise information. At the same time, these officials were also invited and encouraged to share their knowledge and experiences on GP as “case studies”.

## **4. Results**

### **4.1 Literature Review**

#### **4.1.1 International Trends in Green Purchasing (GP)**

The concept of “green purchasing” has been widely championed and adopted around the world. In developed countries and some developing countries, green purchasing practices have already been established and operate with support from respective governments<sup>10</sup>. A diverse range of international, national and regional consortia, directives and guidelines have been established. For instance, Asia Pacific Roundtable for Sustainable Consumption and Production (SCP) officials and members have focused attention upon urban development, corporate cleaner production programs, supply chain management, eco-industrial development (EID)<sup>11</sup>, and industrial parks for recycling, along with increasing awareness of and understanding on the role of human factors in bringing about environmental change<sup>12</sup>.

Due to the huge purchasing power of the public sector, the implementation of government green procurement / purchasing (GGP) [sometimes also identified as “green public procurement / purchasing (GPP)”] has become quite noteworthy and potentially significant. In many countries, GGP accounts for the largest single promoter and contributor to green purchasing. In this regard, there is a prevalent view that “public authorities must act as ‘leaders’ in the process of changes in consumption towards greener products”<sup>13</sup>.

In the developing countries, several studies (relatively scarce compared with developed

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<sup>10</sup> Li, L. and Geiser, K., 2005. Environmentally responsible public procurement (ERPP) and its implications for integrated product policy (IPP). *Journal of Cleaner Production*, 13: 705-715.

<sup>11</sup> Chertow, M. R., 2000. Industrial symbiosis: literature and taxonomy. *Annual Review of Energy and the Environment*, 25: 313-337.

<sup>12</sup> Chiu, S.F., Ward, J.V. and Massard, G., 2009. Introduction to the special issue on cleaner production and regional sustainable development initiatives in the Asia Pacific region. *Journal of Cleaner Production*, 17(14): 1237-1240.

<sup>13</sup> Kunzlik, P., 2003. Case law analysis-marking the market work for the environment: acceptance of (some) “green” contract award criteria in public procurement. *Journal of Environmental Law*, 15(2): 175-201.

countries) have reported that although there are severe constraints on the availability of resources and complicated environmental challenges, the effective application of GGP is more urgently needed and has potentially greater impacts in the developing countries (especially in Asia)<sup>14</sup> (Leung, 2003; Dong, 2004).

Internationally, green purchasing (GP) and sustainable consumption are commonly practised within the building development industry, energy industry, road work, electrical and electronic products, furniture products, timber products, the healthcare sector, golf course operations, organic food networks and renewable energy generation, distribution and supply. The main product categories targeted for GP have included: paper products (recycled, chlorine-free), heating appliances, information technology equipment, cleaning products, packaging, furniture, motor vehicles, and energy and waste services. For example, GP has resulted in greater calls for and selection of fuel-efficient vehicles and energy efficient appliances and lighting in the Australian public sector; refilled toner cartridges and recycled paper in Austria; and solvent-free paints and renewable energy options in Switzerland. United Kingdom government officials are addressing and attempting to meet recommendations that central government buildings and transport be carbon neutral by 2012.

Generally, national and multinational public sectors have played leading roles in the introduction, development, promotion and implementation of green procurement. In this regard, a recent International Green Purchasing Network (IGPN) study identified that in 2007:

- European Commission green public purchasing was calculated at 1 trillion Euros (about US\$ 1.5 trillion) which represented over 14% of the total European Union GDP;

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<sup>14</sup> Dong, K., 2004. The effectiveness and efficiency of government procurement. *Policy Forum*, 24 (2): 32-37 (in Chinese).

- the US federal government spent about US\$500 billion while the American state and local governments collectively spent an additional US\$400 billion on green purchasing; and
- the Japanese national government and local governments spent ¥14 trillion (about US\$ 162 billion) and ¥44 trillion (about US\$ 510 billion) respectively, which cumulatively represented 17.6% of the GDP.<sup>15</sup>

While green purchasing is clearly occurring at significant levels within governments, there have been restrictions and obstacles to overcome. Through this survey exercise, it was identified that three main institutional barriers to implementing green public purchasing have included and continue to include:

- insufficient training for public procurement officers;
- lack of intergovernmental coordination; and
- inadequate information on and awareness of financial benefits as well as initial higher costs (e.g. procurement decisions which take full life-cycle costs into account are still rare, partly due to methodological difficulties).

Another significant obstacle identified through the survey exercise has been the lack of suitable and sufficient green products and services in the marketplace for consideration and purchase. In order to address this, government authorities and procurement officials in some countries [e.g. Austria, Korea and New Zealand] have begun negotiating “green products and services supply partnerships” with suppliers while developing and implementing complementary training programmes and competitions<sup>16</sup>.

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<sup>15</sup> Kataoka, A., 2008 IGPN and green purchasing activities on global level. [http://www.igpn.org/workshop/pdf/Presentation%20by%20A%20Kataoka%20\(English\).pdf](http://www.igpn.org/workshop/pdf/Presentation%20by%20A%20Kataoka%20(English).pdf) accessed June 1, 2009.

<sup>16</sup> Organization for Economic Cooperation and Development, 2007. *Improving the Environmental Performance of Public Procurement: Report on Implementation of the Council Recommendation*.

#### 4.1.2 Green Purchasing Initiatives in Different Countries

##### **Europe**

In Europe, the 1994 European Union (EU) Packaging Directive placed obligations on various parties in the ‘packaging chain’ and was the first European example of the application of ‘producer responsibility’ with regard to environmental responsibility<sup>17</sup>.

The public authorities are major consumers in Europe, spending above 14% of the EU’s gross domestic product or GDP (which is a sum equivalent to about half of Germany’s total GDP). By using their purchasing power to opt for goods and services that also respect the environment, these authorities can collectively make an important contribution towards sustainable development. Green public purchasing covers areas such as the purchase of energy-efficient computers and buildings, office equipment made of environmentally sustainable timber, recyclable paper, electric cars, more environmentally responsible public transportation, organic food in canteens, electricity generated from renewable energy sources, and environmentally preferable air conditioning systems.

Regarding the relationships between the European Commission’s sustainable consumption and production initiatives and its sustainable industrial policy action plan, based upon expert analysis it has been concluded that the absence of mandatory and quantifiable targets and deadlines, along with a reliance on both cross-sectional and multi-level relationships, are likely to weaken the impact and effectiveness of the action plan<sup>18</sup>.

Product-related environmental information is well addressed as a prerequisite for the greening of consumption by Nordic consumers<sup>19</sup>. In this regard, the development, positive

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<sup>17</sup> Coggins, C., 2001. Waste prevention – an issue of shared responsibility for UK producers and consumers: policy options and measurement. *Resources, Conservation and Recycling*, 32: 181-190.

<sup>18</sup> Nash, H.A., 2008. The European Commission’s sustainable consumption and production and sustainable industrial policy action plan. *Journal of Cleaner Production*, 17(4): 496-498.

<sup>19</sup> Leire, C. and Thidell, A., 2005. Product-related environmental information to guide consumer purchases – a review and analysis of research on perceptions, understanding and use among Nordic consumers. *Journal of Cleaner Production*, 13: 1061-1070.

competition, and similarities and variations amongst the Nordic countries of environmental criteria incorporated in public purchasing exercises have been investigated and described as publicly reported<sup>20</sup>. Correspondingly, in order to minimize the impact on climatic change, material consumption in the Swedish healthcare sector has been maintained through the adoption and use of a management tool for strategic decision making<sup>21</sup>. Similarly, promotion of material efficiency has been identified as a strategy for waste prevention in Finland<sup>22</sup>. Complimentary examples with respect to electric energy sustainability and energy efficiency in South East Europe (i.e. Romania, Bulgaria, Turkey and Greece) have also been identified and consulted<sup>23</sup>.

### ***United Kingdom***

In the United Kingdom (UK), green purchasing (GP) is targeted at different levels – e.g. from small business to large corporations<sup>24</sup>, and from food to sustainable agriculture<sup>25</sup>. The office of the Mayor of London, with support by the London Development Agency, launched a Green Procurement Code<sup>26</sup> in 2001 and re-launched it in 2007. This Code provides free support services for London-based organizations and is intended to encourage and guide such organizations to reduce their environmental impacts through responsible purchasing. Before the re-launch in 2007, the Code had a total of 550 signatories. In 2008, the renewed Code had a total of 181 signatories who identified that through their

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<sup>20</sup> Nissinen, A., Parikka-Alhola, K. and Rita, H., 2009. Environmental criteria in the public purchases above the EU threshold values by three Nordic countries: 2003 and 2005. *Ecological Economics*, 68: 1838-1849.

<sup>21</sup> Karlsson, M. and Öhman, D.P., 2005. Material consumption in the healthcare sector: Strategies to reduce its impact on climate change - The case of region Scania in South Sweden. *Journal of Cleaner Production*, 13: 1071-1081.

<sup>22</sup> Lilja, R., 2009. From waste prevention to promotion of material efficiency: change of discourse in the waste policy of Finland. *Journal of Cleaner Production*, 17: 129-136.

<sup>23</sup> Koroneos, C.J. and Nanaki, E.A., 2007. Electric energy sustainability in the Eastern Balkans. *Energy Policy*, 35: 3826-3842.

<sup>24</sup> Walker, H. and Preuss, L., 2008. Fostering sustainability through sourcing from small businesses: public sector perspectives. *Journal on Cleaner Production*, 16: 1600-1609.

<sup>25</sup> Winter, M., 2003. Embeddedness, the new food economy and defensive localism. *Journal of Rural Studies*, 19: 23-32.

<sup>26</sup> Details of the Mayor of London's Green Procurement Code can be found at <http://www.greenprocurementcode.co.uk/>.

cumulative efforts, 72,490 tonnes of waste had been diverted from landfills and greener products had been purchased from over 500 suppliers. Going forward, the renewed Code encourages signatories to incorporate GP criteria and environmental specifications into present and future contracts<sup>27</sup>. Public purchasing is a powerful function in the UK that involves a total annual budget of approximately £150 billion<sup>28</sup>.

### ***United States of America***

The United States of America (USA) contains one of the largest consumer market networks in the world. The American states have developed different product classes with various environmental priorities reflecting their specific and contrasting needs and market demands. Of particular note, Californian government officials launched an initiative several years ago to devise and transform into a distinctive, progressive and leading greener state government<sup>29</sup>. Similar to other consumer networks, there has been rapid development and progress in designing competitive purchasing schemes and mechanisms of all types. However, actual experience with implementing green purchasing has been uneven, particularly for initiatives undertaken within the regulatory frameworks currently overseen by state commissions<sup>30</sup>.

### ***China***

Chinese Government officials have recognized that GP can and should contribute significantly to national environmental and sustainable development policy strategies and

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<sup>27</sup> London Development Agency, 2008. London's Green Procurement – The first annual progress review of the Mayor of London's Green Procurement Code. Retrieved on October 16, 2009 from <http://www.greenprocurementcode.co.uk/files/Annual%20Progress%20Review%202008.pdf>.

<sup>28</sup> Morgan, K., 2008. Greening the Realm: Sustainable Food Chains and the Public Plate. *Regional Studies*, 42(9): 1237-1250.

<sup>29</sup> Swanson, M., Weissman, A., Davis, G., Socolof, M.L. and Davis, K., 2005. Developing priorities for greener state government purchasing: a California case study. *Journal of Cleaner Production*, 13: 669-677.

<sup>30</sup> Tierney, S. and Schatzki, T., 2009. Competitive Procurement of Retail Electricity Supply: recent Trends in State Policies and Utility Practices. *The Electricity Journal*, 22(1): 50-62.

goals. A government procurement law – Order No. 68 of the President of the People's Republic of China - was approved in June 2002 and enacted in January 2003<sup>31</sup>. With this enactment, total government purchasing in 2003 reached US\$20 billion (or 6.7% of the national GDP), and represented an increase of 64.4% over the 2002 total of US\$12.21 billion. It is noteworthy that in some provinces, the proportion of government purchasing in the annual provincial financial budget has been even greater, including 39.6% in Fujian and 37.8% in Shangdong in 2003<sup>32</sup>. Since these proportions are large and in many cases rising, most suppliers have paid increasing attention to the government purchasing policies in order to meet with the interests and requirements of government agencies and not lose out on this huge and continually expanding market segment.

With the promulgation of the *Government Procurement List on Energy Saving Products* in 2004, the implementation of government green purchasing (GGP) was firmly established in China. More recently, the scope of this legislated requirement has been expanded to involve all levels and types of government agencies. As of June 2009, over 10,000 products grouped under thirty-three (33) product categories established under the initiative's Energy Saving Label Scheme, were recognized and targeted for preferential procurement status.

The importance of promoting and guiding the selection and purchase of ecolabelled products (i.e. products labelled and accepted as environmentally preferable) is also recognised by the Chinese Government. Preferential purchase requirements for ISO Type I<sup>33</sup> ecolabelled products were implemented in 2007 for central government agencies and

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<sup>31</sup> Geng, Y., and Doberstein, B., 2008. Greening government procurement in developing countries: Building capacity in China. *Journal of Environmental Management*, 88(4): 932-938.

<sup>32</sup> Dong, K., 2004. The effectiveness and efficiency of government procurement. *Policy Forum*, 24 (2): 32-37 (in Chinese).

<sup>33</sup> ISO Definitions: Type I-ISO 14024- a voluntary, multiple-criteria based, third party program that awards a license that authorizes the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based upon life cycle consideration.

provincial level governments under the *Government Procurement List for Environmentally Labelled Products* initiative and have been upgraded to apply to all levels of government as of 2008<sup>34</sup>. In 2007, close to 3,000 products were listed within 14 categories under China's ISO Type I Environmental Labelling Program, and the total value of Chinese Government green purchasing amounted to 3.5 billion US dollars<sup>35</sup>.

### ***Japan***

In Japan, the Government enacted its *Green Purchasing Law* in May 2000, and enforced it in May 2001. All pertinent institutions are obligated to purchase designated "green purchase items" in accordance with a list of 200 eligible products listed under 18 product categories, and including: copy / printing paper products, stationary and office supplies, office furniture, office automation equipment, lighting equipment, automobiles, uniforms and work clothes, construction materials and services (hotels and inns, etc.), and others. As of 2007, all central government ministries, forty-seven (47) provisional governments, twelve (12) designated cities and 68% of 700 cities are obliged to comply. As a result, and cumulatively, 95% of all purchased products within the designated categories were identified "green products"<sup>36</sup>. "Green product criteria" have been mainly adopted from the Japanese Ecomark ecolabelling program and the Energy Star [energy-efficient products] Program (37%), or specially developed and promulgated for this initiative in order to guide the government purchasers in deciding and selecting preferable and identifiable green products.

Additionally, the Japanese Government promulgated a *Law Concerning the Promotion*

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<sup>34</sup> Deng, T., 2006. The development of the Chinese environmental labeling program. *Economic Observation*, 13 (4): 23-29 (in Chinese).

<sup>35</sup> Yu, N., 2009. Green Procurement Policy and Program in Asia. Presentation given during EPIF 2009 Conference Program: International Conference on Sustainable Consumption, Sustainable Production, Sustainable Future, Pasay City, Philippines, March 19-21, 2009.

<sup>36</sup> Ibid as footnote 35.

*of Contracts Considering Reduction of GHG Emissions by the State and Other Entities* “Green Contract Law” in 2007. This Law stipulates environmental contracting conditions and requirements for inclusion by government agencies and public institutions in the establishment and awarding of contracts for electric power, automobiles, energy services company (ESCO) projects, and building designs.

Even though the Green Contract Law focuses more on greenhouse gases (GHG) reduction aspects of specific products and services, it complements the Law on Promoting Green Purchasing in terms of establishing a Japanese legal framework for government green purchasing. Further, when combined with Japan’s national ecolabelling program and national and multinational green purchasing networks, the two laws offer strong incentives and stimuli for considerable and quick expansion of GP activities in Japan.

### ***Korea***

In Korea, legislation on the promotion of the purchase of environmentally preferable products was enacted in December 2004, and enforced in July 2005. The Law authorizes the Ministry of the Environment (MoE) to set up “Purchasing Guidelines for Environmentally-friendly Products”, and directs public agencies to prepare and announce purchasing strategy plans and initiatives and report on these annually. Government agencies are obliged to purchase designated green products from the list of products qualifying for and labelled with the Korean Ecolabel, Energy Saving Mark or Good Recycled Mark.

Since 2005, the implementation of the Green Purchasing Law has resulted in a tremendous increase in the amount of green purchasing in the Korean public sector from USD 255 million in 2004 to USD 770 million in 2005 and USD 850 million in 2006<sup>37</sup>. Korea Eco-Product Institute officials have predicted that the level of green purchasing will

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<sup>37</sup> Ibid as footnote 35.

reach USD 1400 million in 2010, representing 80% of all government purchasing<sup>38</sup>.

### ***Taiwan***

A Taiwanese “Government Procurement Law” for public enterprises and administrative offices was enacted in 1998 and became in full effect as of May 1999. This Law guides and allows government purchasers to consider and purchase green products at 10% higher prices than competing regular products. Taiwan’s government is increasingly using green purchasing as an effective instrument to control municipal solid waste and to mitigate the adverse environmental impacts of consumption.

To accommodate the green consumption trend in the 21st century, the Executive Yuan promulgated a Green Procurement Policy in July 2001. This Policy established the levels and categories of environmentally preferable products that the government would purchase going forward. The green purchasing component was initially set at 30% for all government agencies, meaning that each was required to purchase and report purchasing at least this amount of products in the prescribed product categories (e.g. 30% of all office stationery and paper products purchased were required to be “green”). To further encourage green consumption and energy saving, along with promoting a healthy and safe environment, Executive Yuan required all government departments to purchase products identified and certified as “low pollution”, “energy saving”, and / or “recyclable”. In 2006, the prescribed “green products” share of overall purchasing for the selected product categories was set at 80%, and was raised in 2007 to 83%. More recently, Executive Yuan representatives have expressed a desire to expand the scope of products involved.

As well, Article 22 of the *Resource Recycling Act* states that government agencies, public schools, public enterprises and organizations, and military authorities must

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<sup>38</sup> Moon, S.K., 2006. Green purchasing in Korean using National Procurement System. Retrieved from [http://www.iclei-europe.org/uploads/media/C3\\_Moon\\_small.pdf](http://www.iclei-europe.org/uploads/media/C3_Moon_small.pdf) on 29 September 2009.

preferentially purchase government-recognized environmentally preferable products, renewable resources produced within the national territory, and / or recycled products in which at least a certain proportion of renewable resources as raw materials are used. The “First Batch of Environmentally Preferable Product Items Requiring Preferential Procurement by Government Agencies, Public schools, Public Enterprises and Organizations, and Military Authorities” lists the environmental preferable product categories and annual purchasing targets.

Currently, there are forty-four (44) designated green product categories which qualify for the preferential purchasing treatment. They include: office paper, stationary, computers, refrigerators, air conditioners, water saving toilets, compost, recycled wood products, water-based paints, cleaning products, and others.

In determining which products merit green purchasing preference status, the Taiwanese Government has bestowed top priority status on products certified and labelled under the national Green Mark (Type-I ecolabelling) Scheme. This action has significantly raised the profile and recognition of the Scheme and its ecolabel among both public and private sector organizations as well as general consumers. Since the government green purchasing program’s implementation in 2002, annual green purchasing spending has increased from 2.6 billion NT dollars [about US\$80.9 million] (for the second half of 2002) to 5.6 billion NTD [about US\$174.2 million] (2003) and reached 6.77 billion NTD in 2008<sup>39</sup>. Concurrently, the numbers of Green Mark licensed products have also increased from 576 in 2002 and 717 in 2003, to 876 in 2008<sup>31</sup>. These statistics demonstrate the close relationship between successful ecolabeling and government green purchasing programs.

### ***Thailand***

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<sup>39</sup> Yu, N., 2009, National Seminar on Green Procurement in the Public Sector and its Impact on the Green Supply Chain. Kuala Lumpur, Malaysia, March 21, 2009.

Sustainable production strategies and initiatives in Thailand have targeted the producers and manufacturers. With the Thai Government being the largest national consumer (contributing 11%-17% of the GDP)<sup>40</sup>, the public sector is playing a lead role in promoting, introducing and advancing green purchasing. The Ministry of Natural Resources and Environment is the lead agency while the Pollution Control Department has been tasked to research, develop and establish criteria for green products<sup>41</sup>. A Governmental Management Plan promulgated by the Thai Government in March 2005 has required all government agencies to initiate green purchasing activities within four years. All governmental agencies (at departmental level) must adopt and have implemented a “purchase green products program” before 2011 (starting from 25% of agencies in 2008 to 100% compliance by 2011)<sup>42</sup>.

## **4.2 Hong Kong Private Sector Survey**

### **4.2.1 Phase I Background Information**

There were 206 respondents from different business sectors [refer to *Table I*] and including 104 from small and medium size enterprises (SMEs) personnel and 102 from large corporations personnel<sup>43</sup>. Basic information on the respondents’ companies was collected as well as some specific green purchasing information and respondents’ opinions on challenges and trends.

**Table 1: Phase I Survey: Composition of Respondents from Different Business Sectors**

<b>Business Sectors</b>	<b>Number of Respondents</b>	<b>Percentage (%)</b>
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<sup>40</sup> Ibid as footnote 35.

<sup>41</sup> Pinthong, R., 2006. Thai Governmental Green Purchasing and Procurement. Retrieved from [http://www.greengrowth.org/download/GGPD\\_CD\\_resources\\_for\\_website/2\\_Rangsan\\_Pinthong.pdf](http://www.greengrowth.org/download/GGPD_CD_resources_for_website/2_Rangsan_Pinthong.pdf) on September 29, 2009.

<sup>42</sup> Salam, M.A., 2008. An Empirical Investigation of the Determinants of Adoption of Green Procurement for Successful Green Supply Chain Management. In Proceedings of the 2008 IEEE ICMIT, pp. 1038-1043.

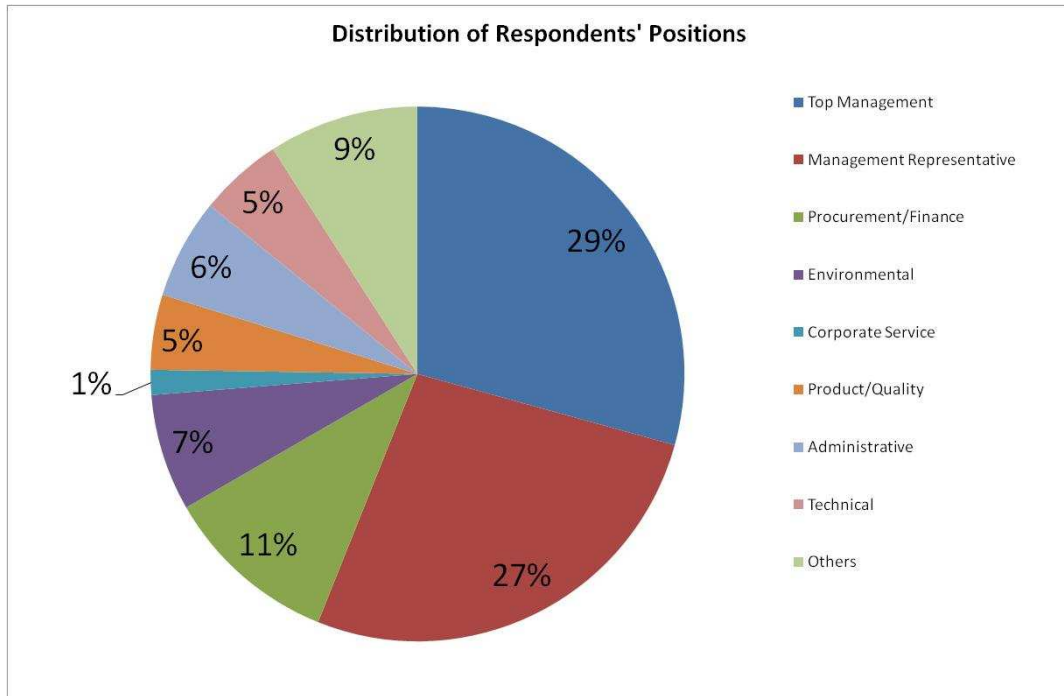
<sup>43</sup> In accordance with the Industrial Department’s definition, an SME is: a) any manufacturing business which employs fewer than 100 persons in Hong Kong; or b) any non-manufacturing business which employs fewer than 50 persons in Hong Kong.

Business Sectors	Number of Respondents	Percentage (%)
Accountancy	1	0.5
Architectural, surveying and planning	6	2.9
agriculture and fisheries	2	1.0
Commercial	5	2.5
Education	8	3.9
Engineering	12	5.9
Finance	3	1.5
Financial services	1	0.5
Health services	2	1.0
Import and export	14	6.9
Industrial	19	9.3
Information technology	14	6.9
Legal	3	1.5
Medical	5	2.5
Real estate and construction	16	7.8
Social welfare	12	5.9
Sports, performing arts, culture and publication	3	1.5
Textiles and garment	1	0.5
Tourism	4	2.0
Transport	7	3.4
Wholesale and retail	10	4.9
Catering	3	1.5
Consulting	9	4.4
Government	2	1.0
Laboratory	2	1.0
Manufacturer	10	4.9
Utilities	5	2.5
Certification Service	3	1.5
NGO	5	2.5
Other <sup>44</sup>	17	8.3

Among the 206 respondents, 29% were executive management officials (e.g. company owners, directors, presidents, heads of departments, chief executive officers) while 27% were other management officials including marketing managers, general managers, assistant managers and executive secretaries (refer to *Diagram 1*).

**Diagram 1: Distribution of Respondents' Positions**

<sup>44</sup> Other industries included art production and supply, office retail, cleaning supplies/services, electronic industries, event/exhibitions management, interior design, pest control, printing, public services, research, and trade promotion.

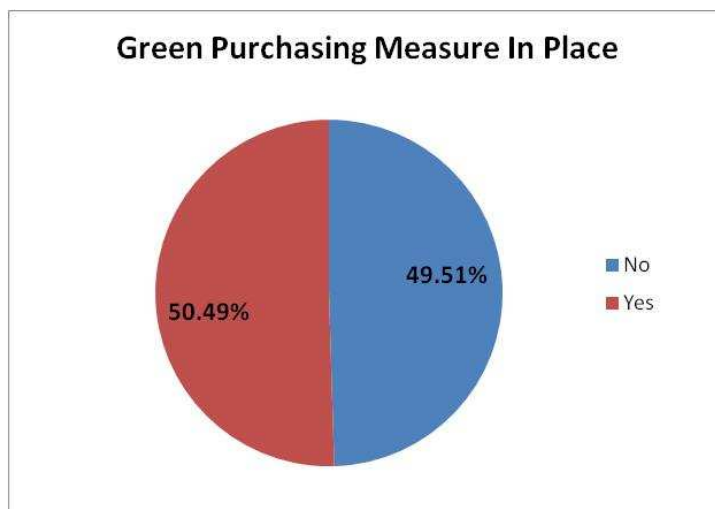


**4.2.2 Phase I Results**

The following sections summarize the responses to the nine (9) questions (Q1 to Q9) involved in the Phase I Survey.

Q1. Does your company have a Green Purchasing (GP) policy, procedures and / or activities in place?

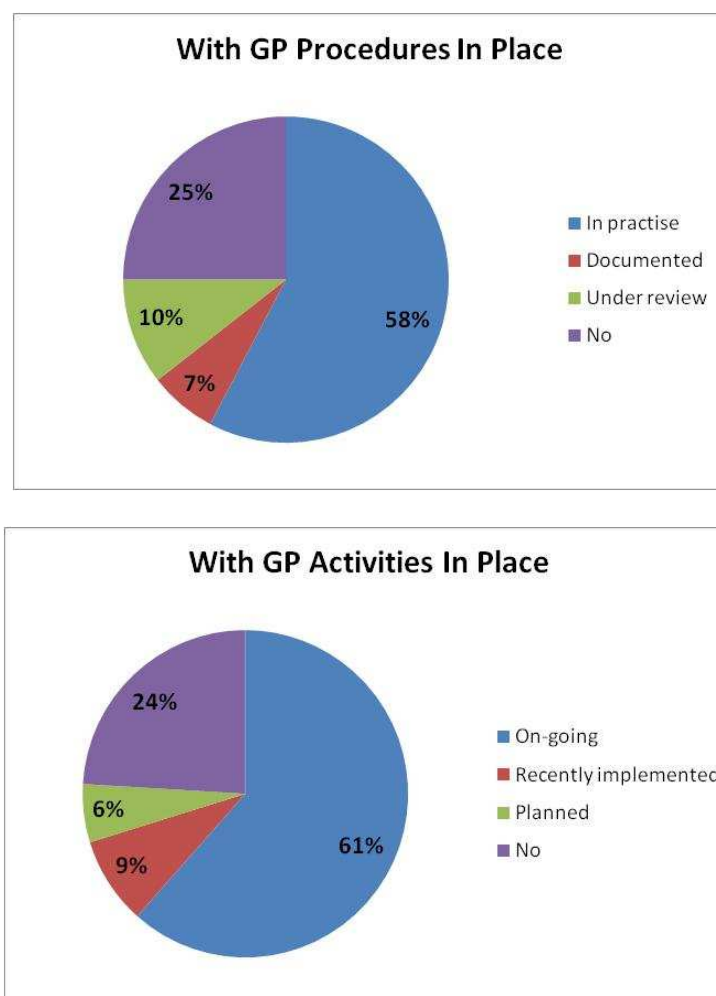
***Diagram 2: Companies With Existing Green Purchasing (GP) Measures***



Around 50% of all the respondents (i.e. 47% of those associated with SMEs and 53%

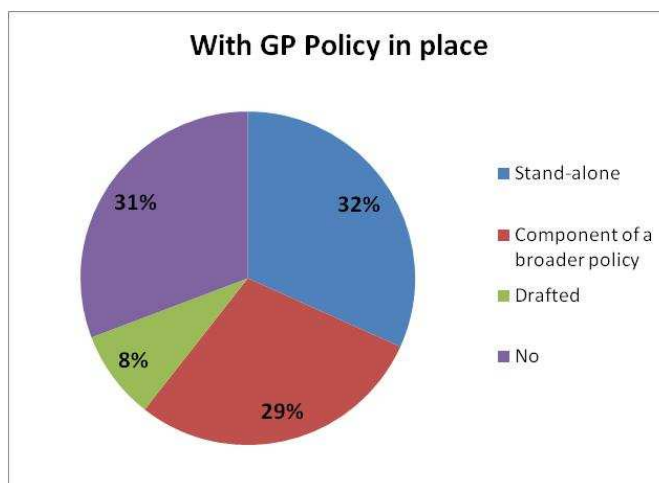
of those associated with large corporations) identified that their companies had GP in place (refer to *Diagram 2*). Of those, approximately 60% of them identified that their companies had already implemented GP procedures and / or had on-going GP activities (refer to *Diagram 3*).

**Diagram 3: Respondents With GP Procedures and / or GP Activities In Place**



Further, 32% of those with green purchasing measures identified having stand-alone GP policies and 29% identified such policy considerations being components of broader policy instruments (refer to *Diagram 4*).

**Diagram 4: Respondents With Green Purchasing (GP) Policy(ies)**



In considering the responses from the officials involved in twenty-four (24) different business categories, and while acknowledging that the total and category-by-category business sector sample sizes were quite small, it is interesting to note that in most of the business categories at least 50% of participants identified having already implemented green purchasing (refer to *Table 2*).

***Table 2: Respondents Practising GP Within Various Business Sectors***

Business Sectors	Respondents Practising Green Purchasing	Percentage of Total Respondents Within the Business Category
Architectural, surveying and planning	3	50.0
Agriculture and fisheries	1	50.0
Commercial	3	60.0
Education	6	66.7
Engineering	6	50.0
Finance	2	66.7
Health services	1	50.0
Import and export	6	42.9
Industrial	10	52.6
Information technology	10	66.7
Legal	2	66.7
Medical	1	20.0
Real estate and construction	6	37.5
Social welfare	1	8.3
Sports, performing arts, culture and publication	2	66.7
Tourism	1	25.0
Transport	5	71.4
Wholesale and retail	5	50.0
Consulting	6	66.7
Government	2	100.0

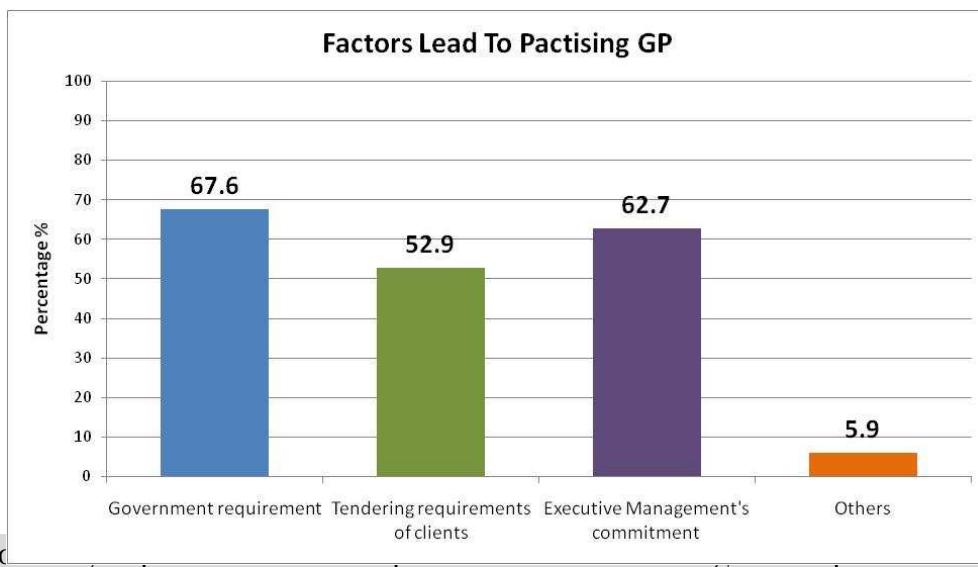
Business Sectors	Respondents Practising Green Purchasing	Percentage of Total Respondents Within the Business Category
Manufacturer	8	80.0
Utilities	5*	100.0
Certification Service	1	33.3
NGO	3	60.0

\*Data from THREE public utilities companies

**Q2. Under which of the following circumstance(s), your company will consider practising GP?**

Regarding respondents associated with companies that have not implemented GP yet, over two-thirds (i.e. 67.6%) identified that GP implementation would probably occur within their companies if green purchasing application became a mandatory legislative requirement. Over half of the respondents identified that either the emergence of “commitment from the top management” [62.7%] or “clients’ requirements during the tendering process” [52.9%], might also lead to GP implementation. Several respondents identified other potential stimuli, including: greater market availability of green products, cost reductions forecast (e.g. in terms of cost-saving ability), and corporate image improvement/enhancement assured (especially in terms of corporate social responsibility). (Refer to *Diagram 5*).

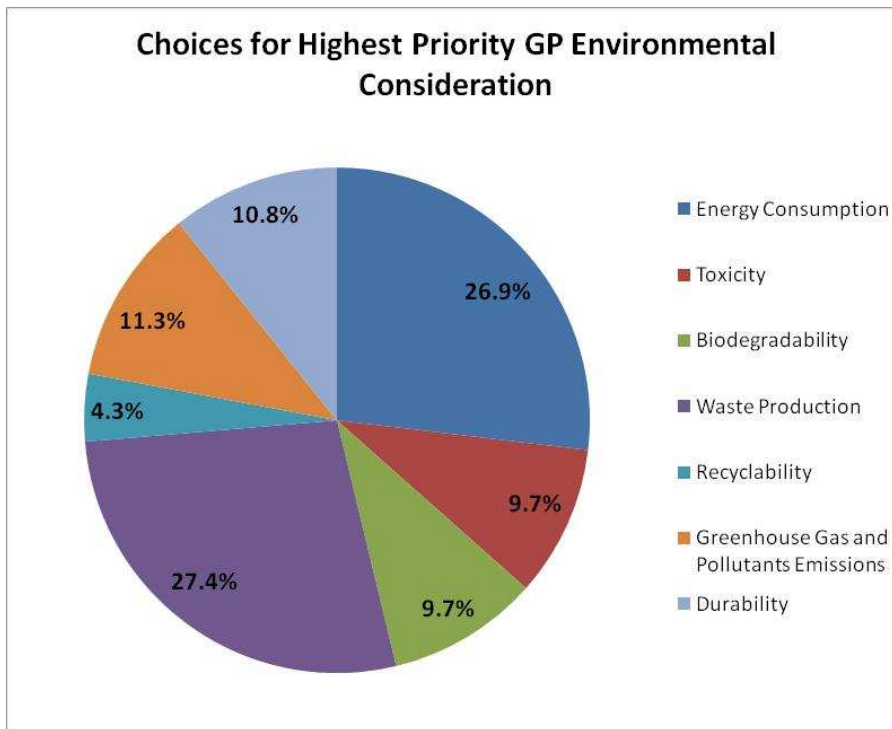
***Diagram 5: Factors Leading to Green Purchasing***



Q3. Ho

Among seven environmental aspects – “energy consumption”, “toxicity”, “biodegradability”, “waste production”, “recyclability”, “greenhouse gas & pollutants emission” and “durability” -- that could and are sometimes factored into green purchasing exercises. Respondents identified “waste production” and “energy consumption” as the most significant and “recyclability” as the least significant among the seven environmental criteria. (Refer to *Diagram 6* below and / or *Figure 1* in *Section 8* of this Report).

**Diagram 6: Significance of Different Environmental Considerations for Green Purchasing**



**Q4. If your company is practising / will begin practising GP, what consequences do you expect?**

For companies which had been practising GP, a majority of the respondents believed that GP could have the greatest positive impacts for their specific companies in terms of [from highest ranged to lower ranged]: (1) raising staff awareness on GP, (2) improving public images, (3) encouraging the collection [and consideration] of green market

information, (4) stimulating suppliers to take green initiatives, (5) updating purchasing specifications and procedures, (6) increasing corporate market competitiveness, and (7) enhancing business opportunities with clients. About two-thirds of the respondents indicated that GP could also: (8) conserve energy and resources, (9) enhance inter-departmental collaboration, and (10) reduce their companies' carbon footprints / carbon emissions. Lastly, while about one-fourth of the respondents [23.8%] suggested that GP could reduce overall business/operational expenditures, 30% countered this view with the suggestion that GP implementation would have no effect on operational costs. (Refer to *Table 3* below and / or *Figure 2* in *Section 8* of this Report).

**Table 3: Anticipated Outcomes From Green Purchasing Implementation**  
**– Companies Already Practising Green Purchasing**

	<b>Increase / Positive</b>	<b>No Effect</b>	<b>Decrease / Negative</b>	<b>No Opinion</b>
Change in expenditures	47.6	28.6	23.8	0
Change in environmental performance	81	15.9	3.2	0
Change in carbon footprint / CO <sub>2</sub> emissions	17.5	11.1	69.8	1.6
Change in energy and resource conservation	65.1	9.5	25.4	0
Number of green alternatives from suppliers	82.5	15.9	1.6	0
Company's publicity / marketing power / influence	79.4	20.6	0	0
Staff awareness on GP & the related green policy	96.8	3.2	0	0
Company's public image (e.g. CSR)	87.3	12.7	0	0
Business opportunities with clients	76.2	23.8	0	0
Updating of purchasing criteria / specifications & procedures	81	17.5	1.6	0
Interest in and collection of green market information	85.7	14.3	0	0
Collaborations among departments / divisions	63.5	36.5	0	0

For companies with plans to begin GP implementation, the associated respondents expressed comparable opinions with the two following notable exceptions: (i) 70% of these respondents shared the view that GP would increase overall expenditure levels, and (ii) nearly half of the respondents did not agree that GP could enhance business opportunities

with clients. (Refer to Table 4.)

**Table 4: Anticipated Outcomes From Green Purchasing Implementation**

**– Companies Not Yet Practising Green Purchasing**

	<b>Increase / Positive</b>	<b>No Effect</b>	<b>Decrease / Negative</b>	<b>No Opinion</b>
Change in expenditures	69.2	17.5	11.9	1.4
Change in environmental performance	77.6	18.9	2.1	1.4
Change in carbon footprint / CO <sub>2</sub> emissions	14.7	23.8	59.4	2.1
Change in energy and resource conservation	58.7	18.9	21.7	0.7
Number of green alternatives from suppliers	69.2	23.8	4.9	2.1
Company's publicity / marketing power / influence	62.9	35.7	0	1.4
Staff awareness on GP & the related green policy	84.6	13.3	0.7	1.4
Company's public image (e.g. CSR)	79.7	19.6	0	0.7
Business opportunities with clients	53.1	44.8	1.4	0.7
Updating of purchasing criteria / specifications & procedures	58.7	37.8	2.1	1.4
Interest in and collection of green market information	78.3	21	0	0.7
Collaborations among departments / divisions	51	46.2	2.1	0.7

**Q5. The major deterrents to GP implementation**

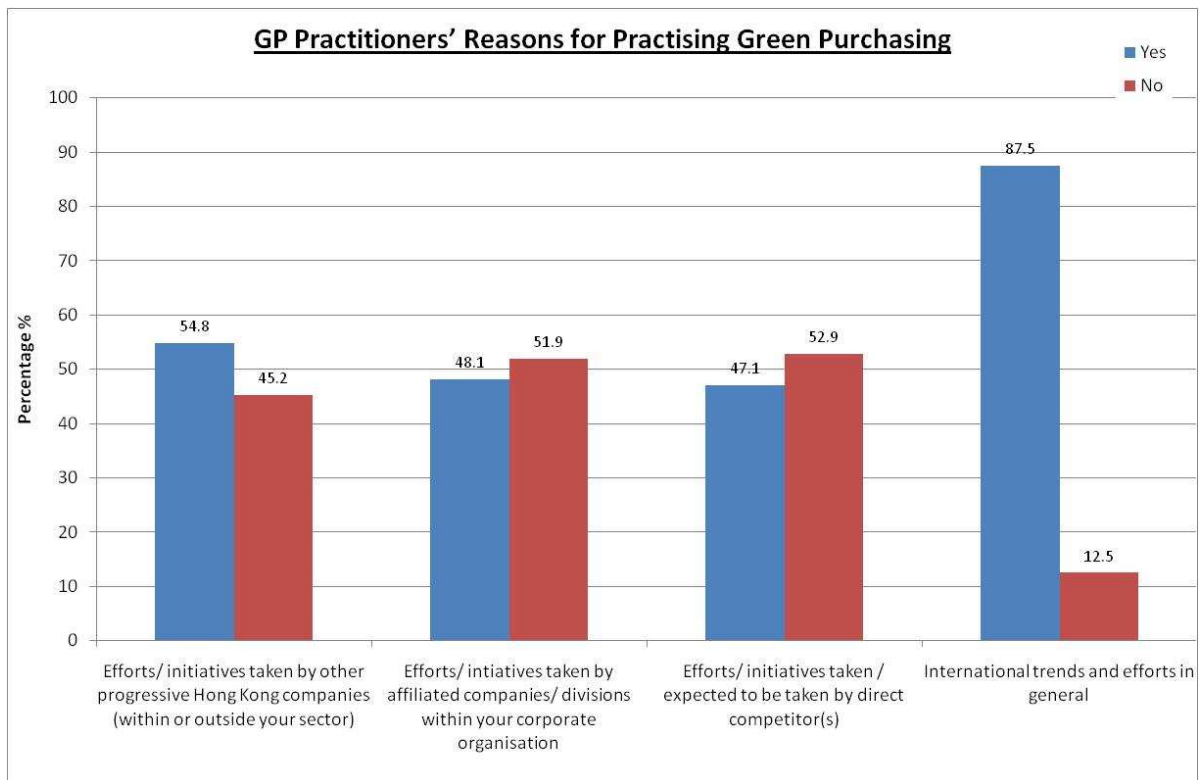
A majority of respondents -- 68.4% -- expressed the view that increased expenditures for “green products/services” without significant actual and measurable improvement in environmental performance would be a major deterrent for their companies to practise GP. From a corporate management perspective, only 26.7% of the respondents suggested that difficulties in integrating GP policy(ies) into companies’ existing overarching policies was/would be a hindrance to GP implementation (refer to *Figure 3* in *Section 8* of this Report).

**Q6. Reasons for company practising GP**

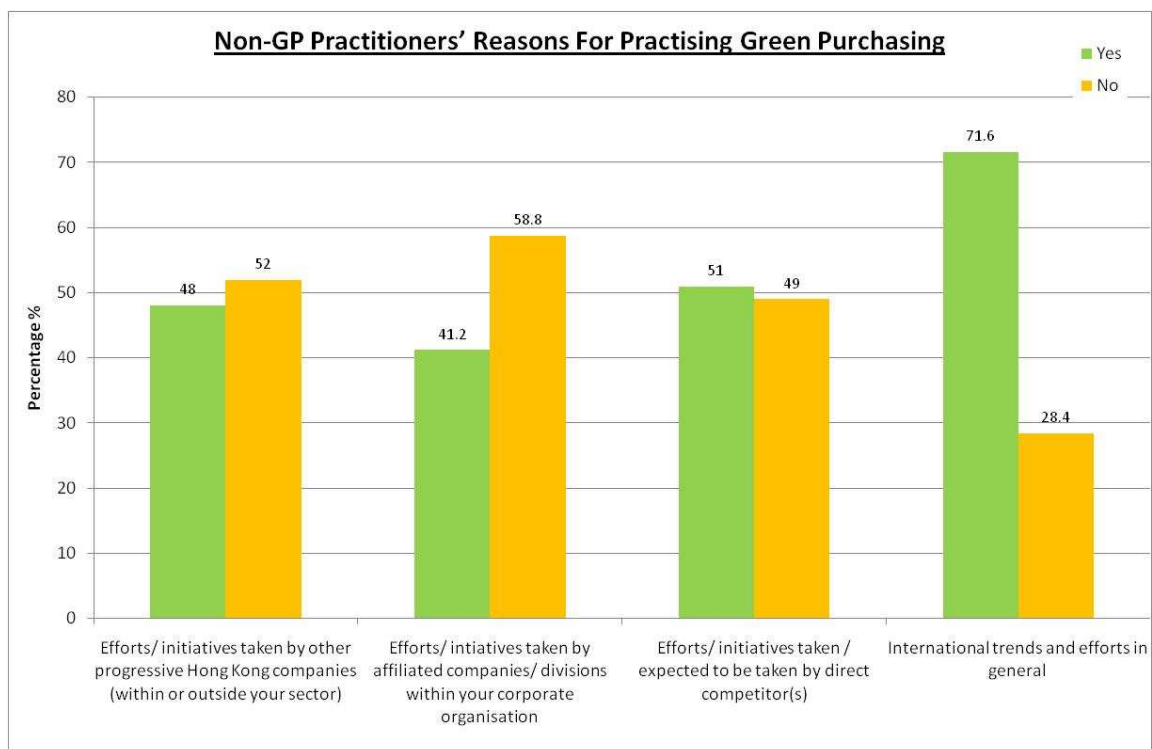
Of particular note, and with respect to both GP practitioners and non-GP practitioners, a majority of the respondents identified that international GP implementation trends and

efforts had played or could play a significant role in stimulating and / or guiding Hong Kong-based companies (refer to *Diagram 7* and *Diagram 8*). However, and somewhat contradictory to the view identified above, almost 60% of non-GP practicing respondents shared a position that GP initiatives undertaken by affiliated companies or divisions within their corporations would not automatically trigger GP implementation by their own companies/divisions (refer to *Diagram 8*).

**Diagram 7: GP Practitioners’ Reasons for Practising Green Purchasing**



**Diagram 8: Non-GP Practitioners’ Reasons For Practising Green Purchasing**



**Q7. Will GP become significant / insignificant in different sectors and industries.**

Generally speaking, it was found that 86% of the total business and industry sector respondents expressed the view that GP would become significant in the future. Of interest, some of the respondents who did not share the view that GP would become a significant consideration/activity within their specific sectors, provided the following reasons:

- “Constraints on technological advancement, incompatible price cost and availability of green products hinder GP development”;
- “Absence of viable incentive to practise GP except for ethical reasons”;
- “Sharing of GP information is difficult as companies tend to keep information confidential because green product can benefit themselves and also their competitors”;
- “Belief of the independence of GP and the industries -- no correlation between GP and the industries”;

- “Short-term consideration -- particularly Profit and Loss (P&L) -- by the senior management;
- “Inadequate knowledge on GP”;
- “Lack of support from the government (e.g. policy) and social concern about GP”;
- “Not considered as one of the agenda item in the development direction for different industries”; and
- “Not a major factor to be considered at the operational level for different industries -- time is more important”.

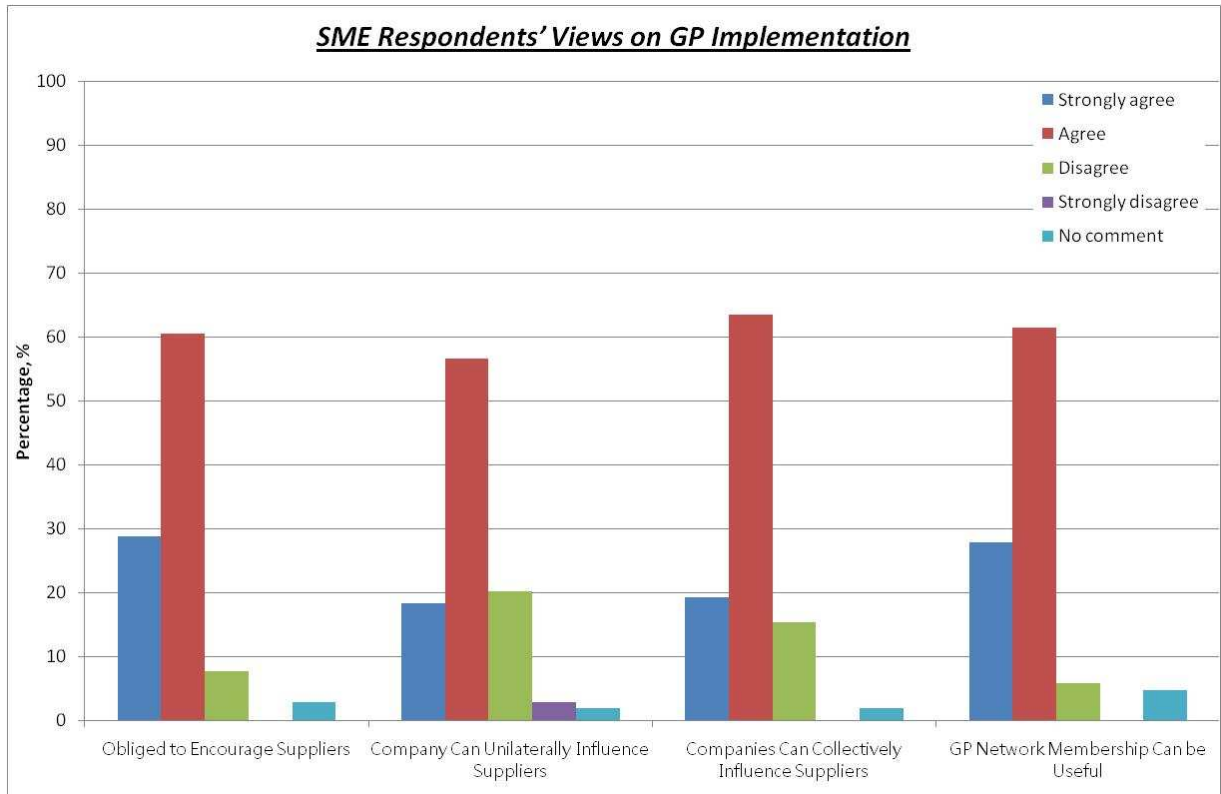
#### **Q8. Prospective on GP implementation**

Respondents were requested to identify their levels of agreement -- i.e. from “Strongly agree” to “Strongly disagree” – with respect to the following four statements:

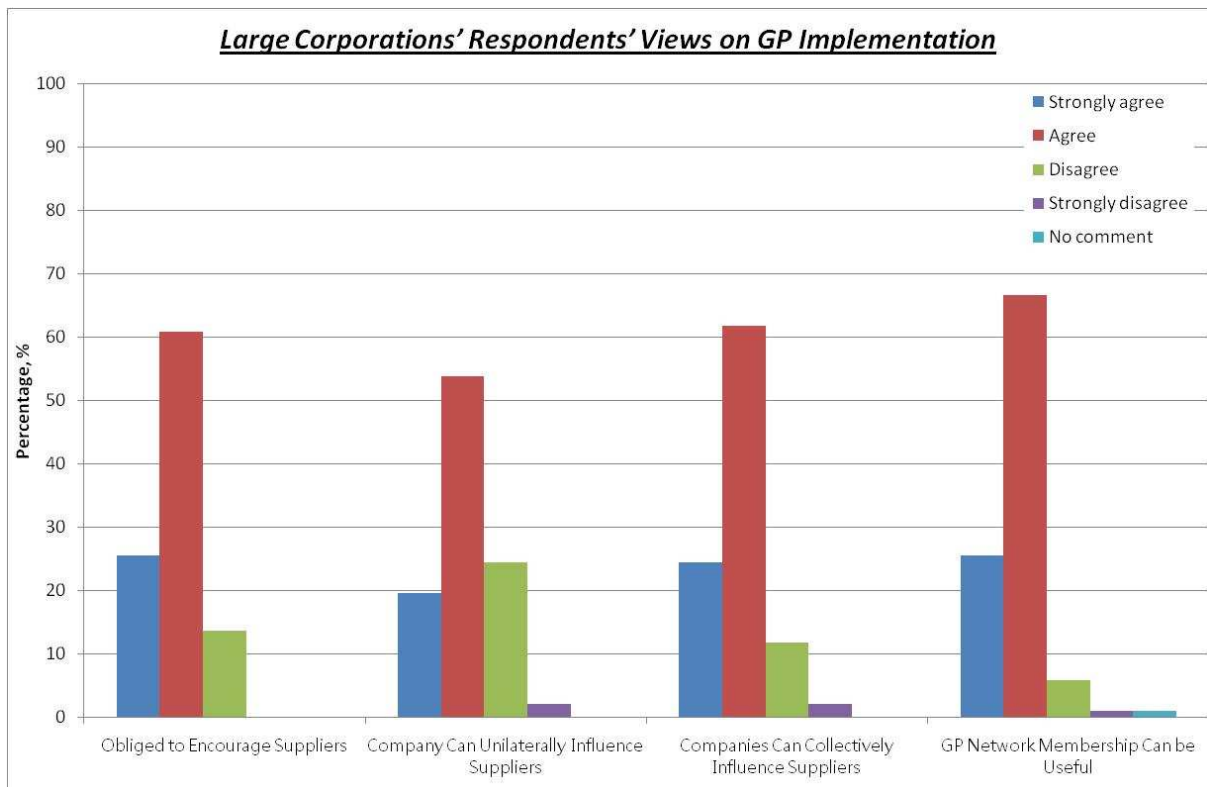
- (A) Your company is obligated to encourage your suppliers to offer and provide ‘greener’ products / services
- (B) Your company, through applying pressure unilaterally, can influence suppliers to modify their products’ environmental attributes to fit your “greener” requirements
- (C) Pressure exerted collectively by several companies within your sector can influence common suppliers to modify their products in order to satisfy “greener” requirements
- (D) Joining and being active in a GP network (e.g. [www.HKGPC.org](http://www.HKGPC.org)) can usefully guide and assist in GP implementation.

Generally speaking, a large majority of respondents representing both SMEs and large corporations identified that they “Agree” or “Strongly agree” with all four statements (refer to *Diagram 9 & Diagram 10*).

#### **Diagram 9: SME Respondents’ Views on GP Implementation**



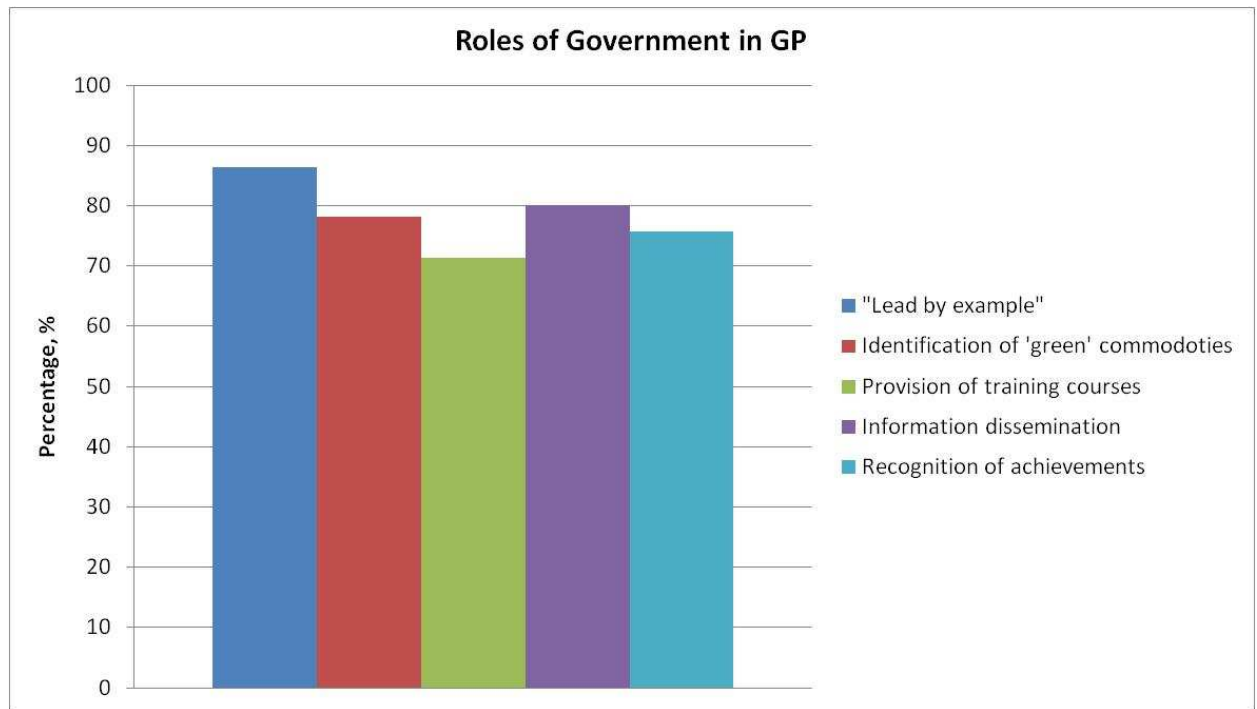
**Diagram 10: Large Corporations' Respondents' Views on GP Implementation**



**Q9. View of Government role in promoting, guiding and encouraging GP**

Most of the respondents (i.e. 178 of 206 or 86%) supported the view that the Government should play a leading role in promoting, guiding and encouraging GP. Further, over 70% of the respondents expressed agreement with the notions that the Government should be involved in: (i) “identification of ‘green’ commodities”, (ii) “provision of training courses”, (iii) “information dissemination” and (iv) “recognition of achievements” (refer to *Diagram 11*). Other government roles suggested by respondents to promote, stimulate and advance GP, included:

- imposing legislative regulations and offering tax cut & subsidies for GP-related incentives (e.g. development of green buildings);
- setting up product standards with environmental specifications for “green” products and having the qualified products certified by an independent and recognizable ecolabelling programme;
- developing an authentic database for “green” products;
- following the international environmental trend on green product standards and policies closely; and
- strengthening the commitment from the Government on GP.



#### 4.2.3 Phase II Background Information

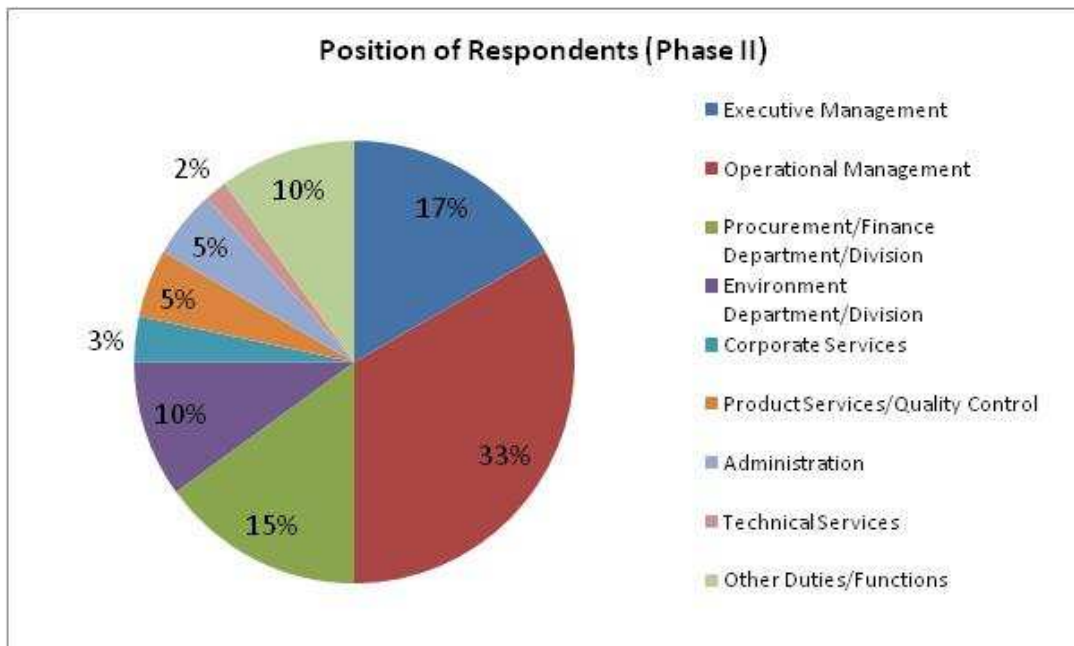
In follow-up to Phase I, a more comprehensive and in-depth questionnaire was developed and administered through either face-to-face or telephone interviews to sixty (60) green purchasing practitioners – thirty-three (33) affiliated with SMEs and twenty-seven (27) affiliated with large corporations – selected from twenty-three (23) different business sectors (refer to *Table 5*).

**Table 5: Composition of Respondents: Business Sectors Represented**

<b>Business Sectors</b>	<b>Number of Respondents</b>	<b>Percentage (%)</b>
Accountancy	1	1.7
Commercial	2	3.3
Education	1	1.7
Engineering	1	1.7
Finance	1	1.7
Financial services	1	1.7
Health services	1	1.7
Import and export	4	6.7
Industrial	5	8.3
Information technology	6	10
Medical	2	3.3
Social welfare	6	10
Sports, performing arts, culture and publication	1	1.7
Tourism	3	5
Transport	1	1.7
Wholesale and retail	3	5
Consulting	4	6.7
Government	1	1.7
Manufacturer	4	6.7
Utilities	3	5
Certification Service	2	3.3
NGO	2	3.3
Other	5	8.3

One-third of the respondents were operational management representatives of their companies including managers, general managers, senior managers, marketing managers and assistant general managers. The remaining respondents comprised of: executive management officials including executive directors, principles, management directors, chief executive officers and directors (17%), procurement and finance department officials (15%), environment department officials (10%), corporate services officials (10%), and company officials representing other divisions (refer to *Diagram 12*).

**Diagram 12: Composition of Respondents: Company Positions**



#### 4.2.4 Phase II Results

The following section summarizes the responses to the nineteen (19) questions asked and responded to during the Phase II Survey exercise.

##### (i) Implementation of GP policy, procedures and / or regulations

Based upon the responses recorded, twenty-seven (27) of the sixty (60) companies represented already had GP policies, procedures and / or regulations in place.

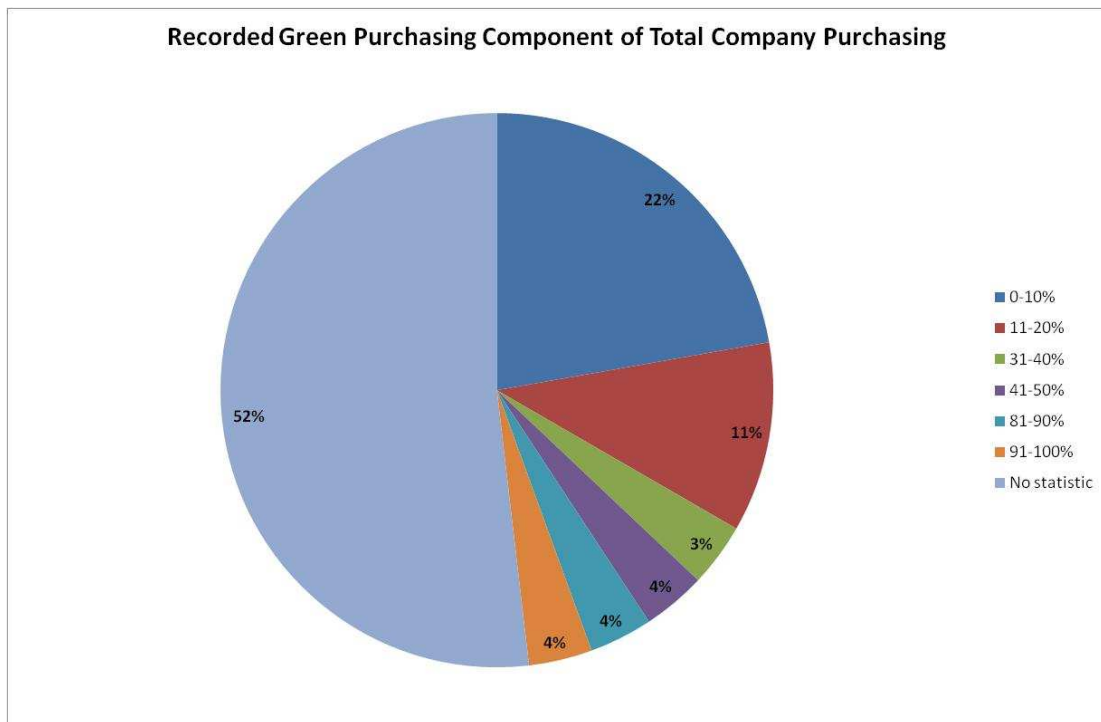
##### (ii) Compliance of GP policy with company's overall objective(s) and policy(ies)

Twenty-three (23) of the twenty –seven (27) respondents whose companies had green purchasing (GP) policy in place (i.e. 85%) expressed the view that they had not found significant difficulties in incorporating the GP policy into their existing companies' overall core objectives and policies. Conversely, the other respondents identified that they had been required to establish a separate GP policy because of perceived incompatibility with their companies' existing core policies and objectives.

**(iii) Influence of GP on the company's total expenditures**

Among those GP practitioners with separate statistics on GP-related expenditures<sup>45</sup>, nine (9) of thirteen (13) respondents (i.e. 70%) identified that their companies spent less than 20% of their total purchasing budgets on “green purchases” annually (refer to *Diagram 13*).

**Diagram 13: Ratios of GP Expenditures to Total Purchasing Expenditures**



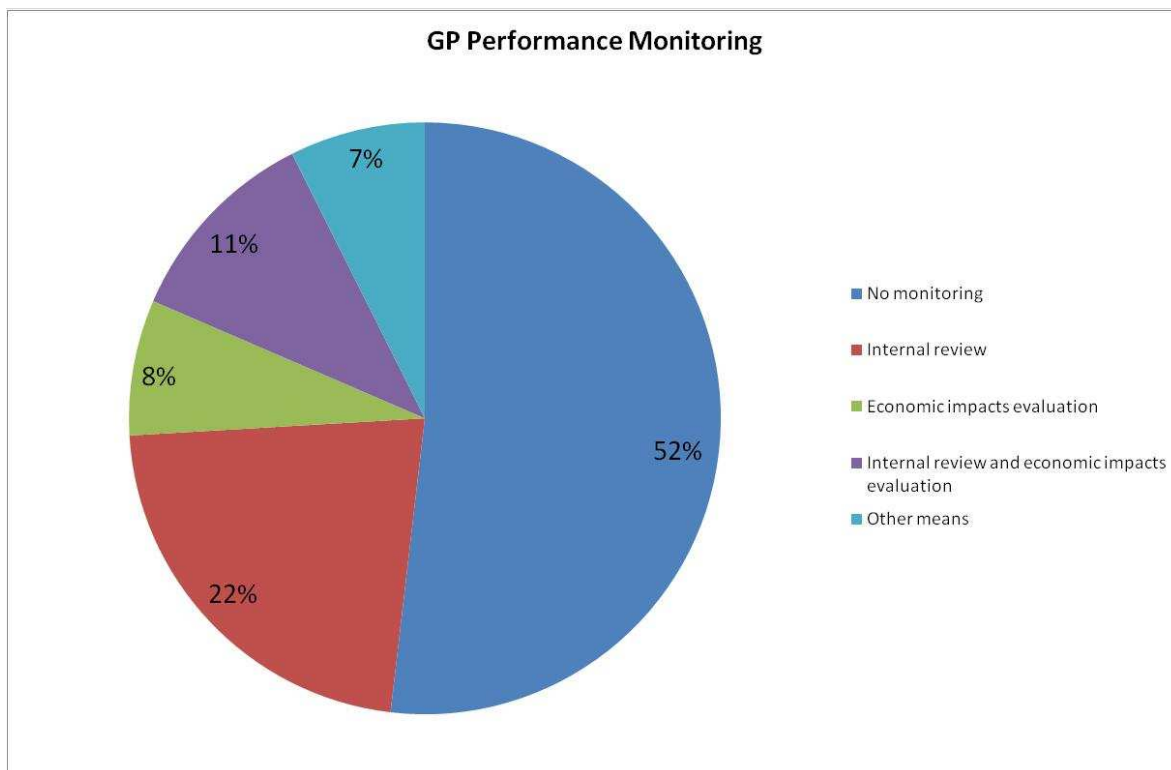
**(iv) Monitoring of GP performance**

Fifty-two percent (52%) of the GP practitioners identified that their companies had no monitoring programmes in place to evaluate GP performance. Among those with GP monitoring processes within their companies, 22% identified that their companies conducted internal reviews, 8% identified that economic impact evaluations were being performed, 11% reported that both monitoring activities were being performed, and 7% identified that other monitoring processes/procedures were in place (refer to *Diagram 14*). Of note, those

<sup>45</sup> Fourteen (14) of twenty-seven (27) GP practitioners' companies did not break-out / calculate GP expenses specifically.

whose companies were doing monitoring reported different frequencies of monitoring exercises and activities.

***Diagram 14: Methods of GP Performance Monitoring***



***(v) Findings and follow-up of the most recent monitoring on GP performance***

Based on their monitoring efforts<sup>46</sup>, for those with findings from the monitoring programmes<sup>47</sup>, the respondents reported that green purchasing initiatives had led or were expected to lead to positive outcomes including waste reduction achievements. One specific observation reported, that was expected to lead to follow-up actions, was that pertinent company officials, and notably regular staff, were not familiar with alternative “green products” and thus were encountering reservations and difficulties in practising GP. In terms of follow-up measures proposed, one respondent identified an intention to explore and potentially implement some level of collaboration with other corporations as a means to

<sup>46</sup> Generally speaking, most monitoring programmes were described as not designed specifically for assessing the GP performance, but rather more general performance and / or other operational aspects.

<sup>47</sup> Findings could only be found from thirteen (13) of the twenty-seven (27) respondents.

increase and strengthen the sourcing of green products.

*(vi) Outcomes on environmental performance resulting from GP implementation*

Respondents provide a range of comments regarding the actual or expected relationships between green purchasing activities and various company environmental performance aspects. These comments are summarized below:

*Energy consumption*

Several respondents pointed out that the identification, selection, purchase and use of more energy efficient products would lead to reduced energy consumption and related cost savings for energy users. At the same time, several respondents whose companies produce or market energy saving products stressed that increased green purchasing of such products would increase profits and stimulate greater production and marketing of these products.

*Waste production*

Respondents, including some from the hotel, building materials supply, plastic materials supply, medical, and information technology sectors, shared a similar view that GP can and should bring about waste reduction and thus have a positive impact on purchasers' operations (e.g. financial savings through waste disposal levels reductions or avoidance) while also stimulating increased business for companies supplying waste reduction/avoidance products. A number of the respondents (i.e. 32% of respondents to this question) identified that increasing general concern and publicity regarding solid waste handling and disposal problems had been a major motivator for their companies to consider and / or implement GP practices.

*Greenhouse gas & pollutant emissions*

Respondents involved in the construction, product manufacturing, hospitals and other high energy consumption industrial sectors (e.g. information technology) collectively indicated that greenhouse gas and pollutant emissions was already a major business and operational concern and attention area for their companies. They shared an opinion that the selection, purchase and use of green products with lower emission levels (notably at the product use life cycle phase) was desirable and rewarding from a work conditions/air quality perspective as well as in terms of creating or enhancing a positive reputation for the companies practicing such GP.

*Toxicity*

Over 50% of the respondents made the point that purchasing products and services with lower toxicity levels could lessen potential adverse health and environmental impacts associated with product handling and consumption and services use. In addition, about 40% of the respondents noted that such GP practices could and / or were already contributing to the maintenance or improvement of positive corporate responsibility images to the general public.

*Biodegradability*

Approximately 40% of the respondents identified that this environmental consideration / criterion was not a major corporate focus as their business activities seldom dealt with the need for, and consideration and use of biodegradable materials.

*Recyclability and durability*

Approximately 67% of the respondents revealed that cost savings expectations, as well as high public concern levels regarding both resource depletion and waste management

issues, were major stimuli for the consideration and purchase of products with higher recycled content levels and / or greater durability. Another common position identified was that “recyclability” and “durability” had frequently and initially been selected as GP criteria for product requisitions due to a sense that only basic knowledge, rather than highly technical knowledge, was required for application of and compliance verification against such criteria.

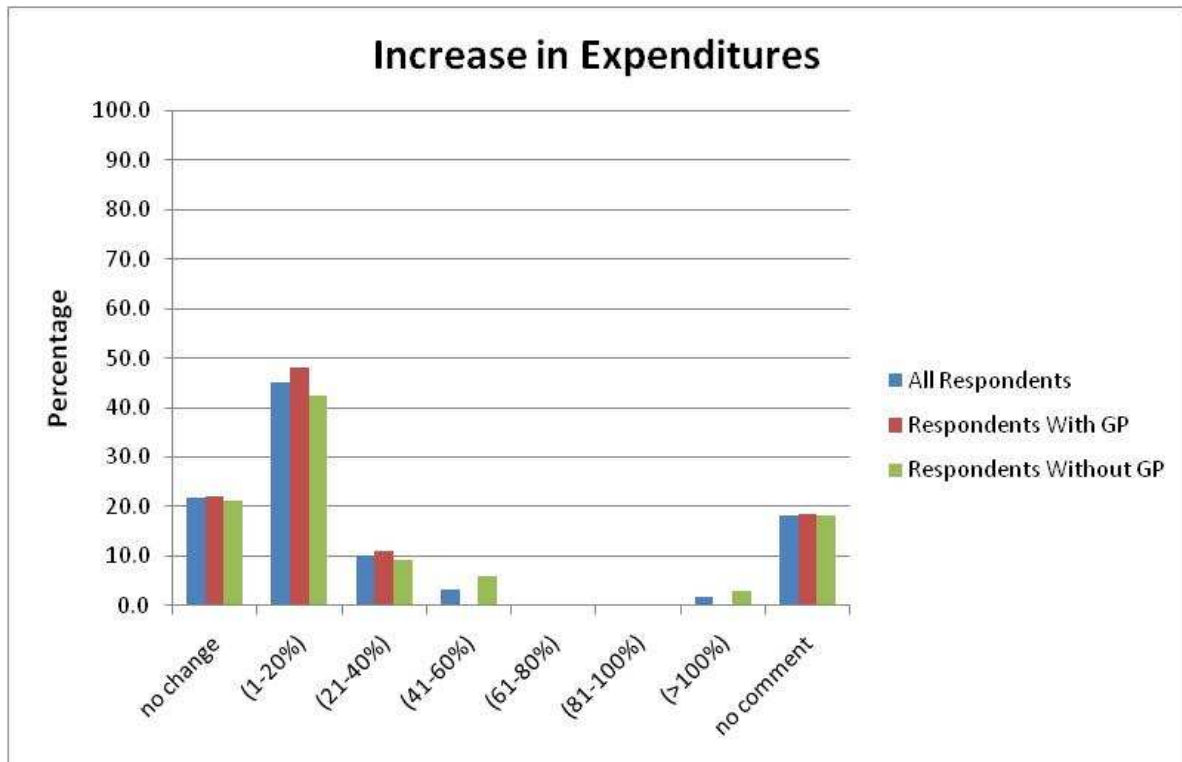
*(vii) Changes induced by GP*

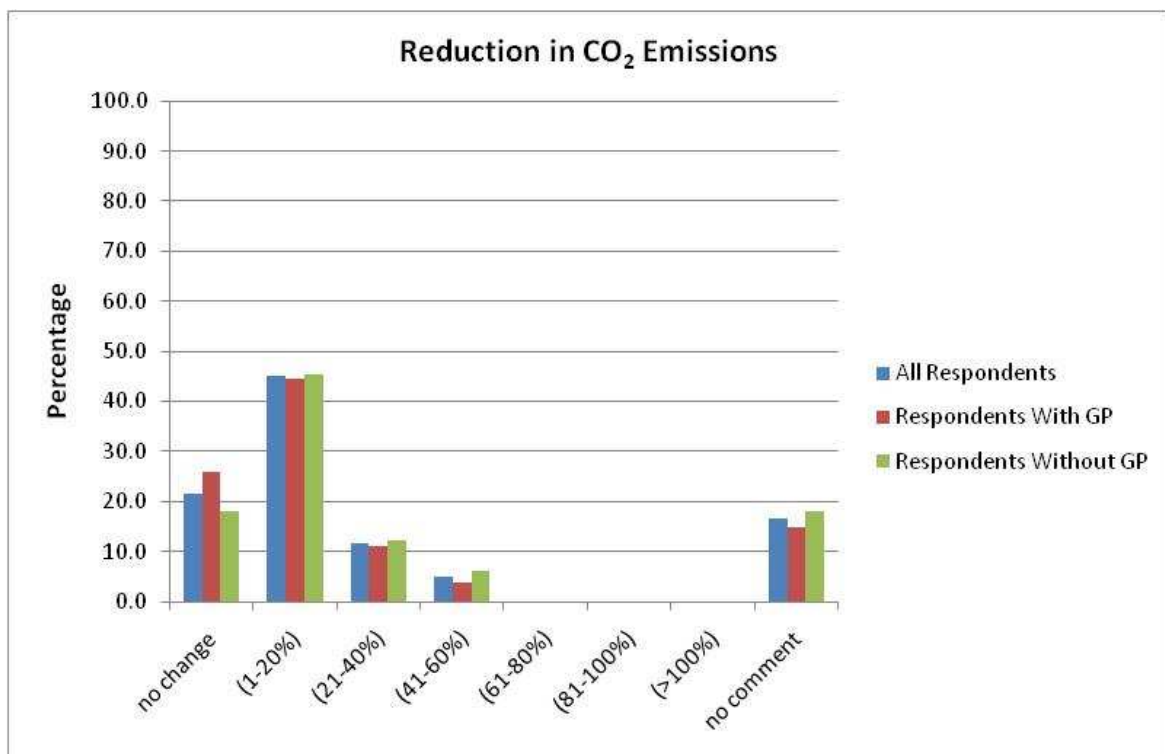
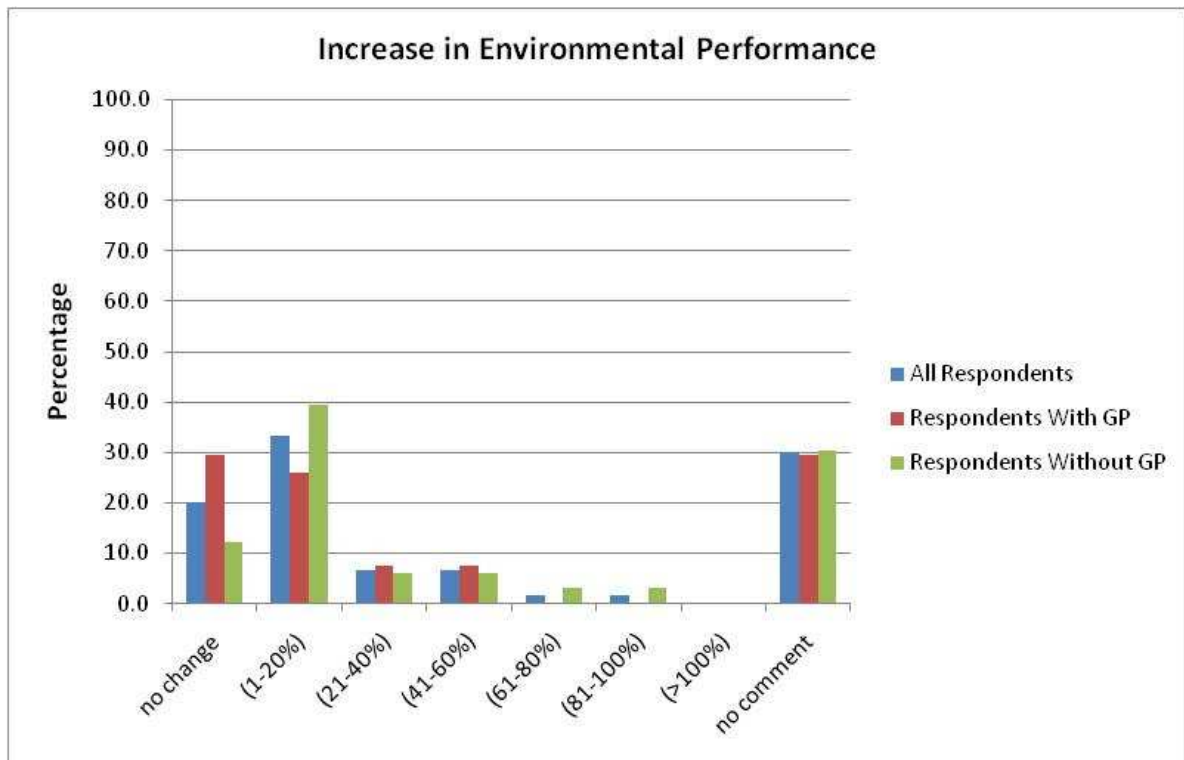
Respondents provided their perceptions on the potential impacts that green purchasing (GP) implementation could have with respect to a variety of business aspects. *Diagram 15* provides a series of charts presenting categorizations of the ranges of opinions offered. Noteworthy response groupings, included:

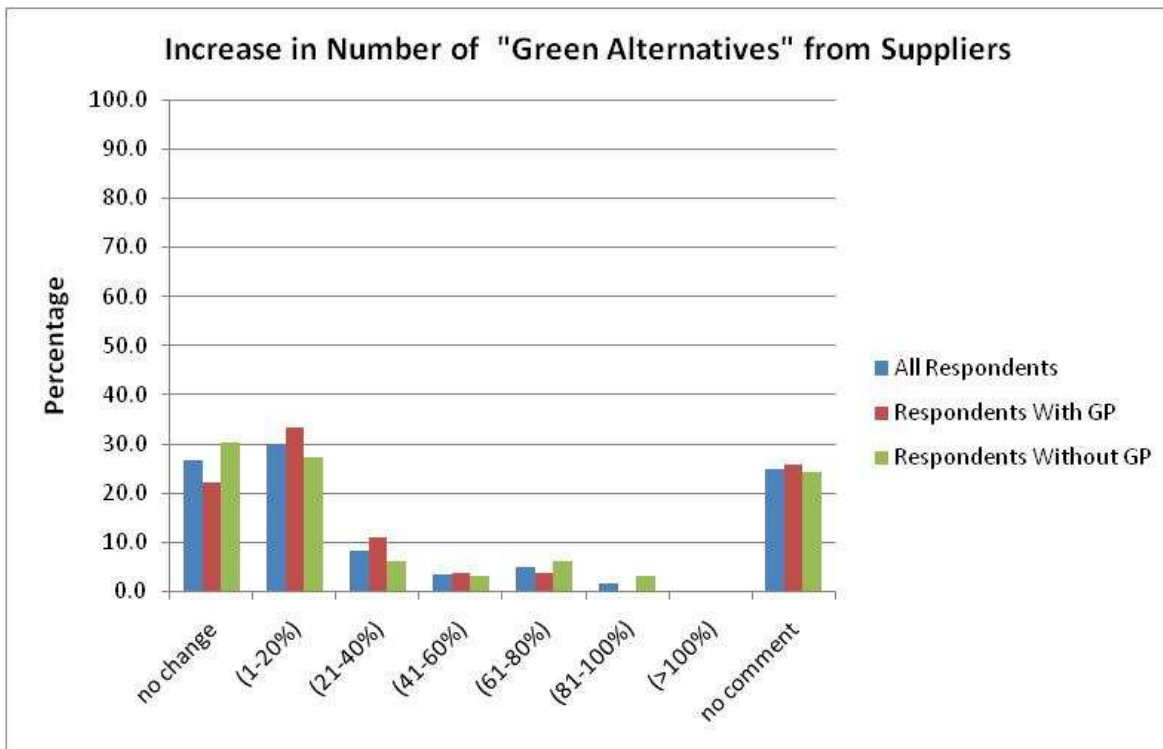
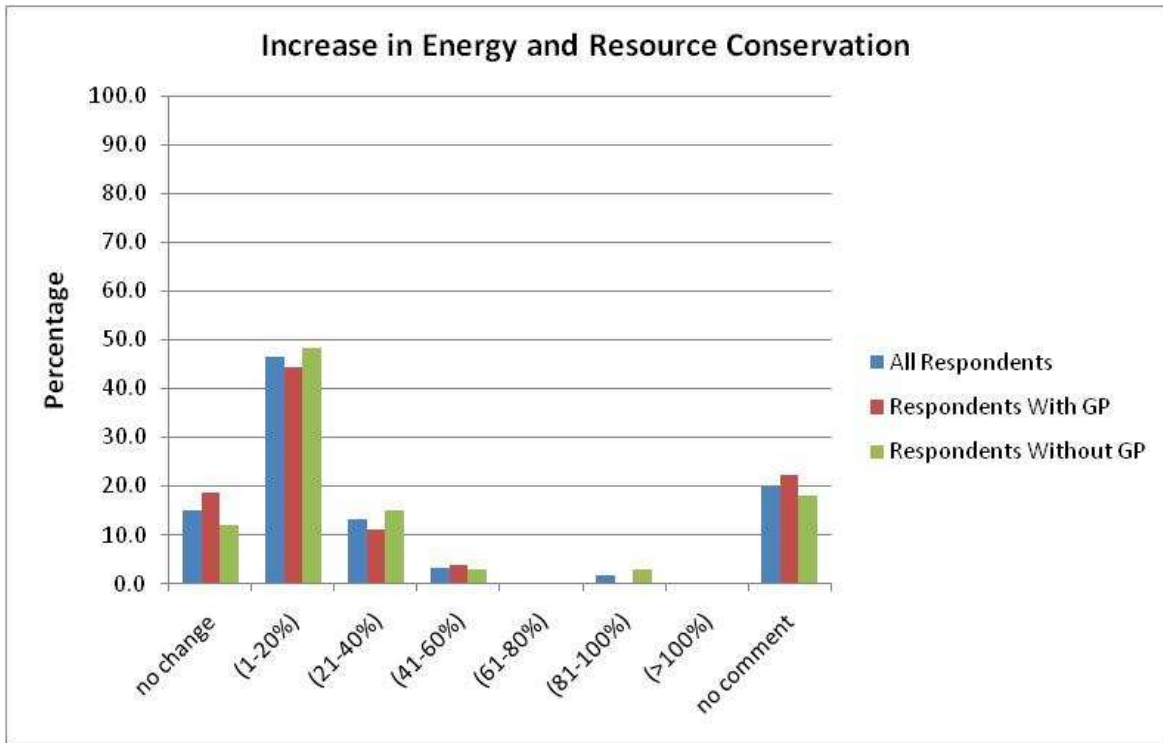
- a majority would expect no significant increases -- i.e. < 20% increases -- in their companies' overall expenditure levels;
- a majority would expect some environmental performance improvements, mostly in the 1% to 20% range, for a number of environmental aspect areas including: overall environmental performance, energy and resource conservation, and CO<sub>2</sub> emissions reductions;
- greater distribution of opinions regarding: (i) potential increases in green products supply levels, and (ii) potential improvements in companies' publicity and marketing powers, ranging from none to significant levels;
- most would expect staff awareness level increases regarding corporate “green policies”;
- quite conflicting views regarding impacts on several business aspects including: general updating of purchasing criteria/specifications and procedures, companies' public image changes/enhancements, and updating of “green market” information;

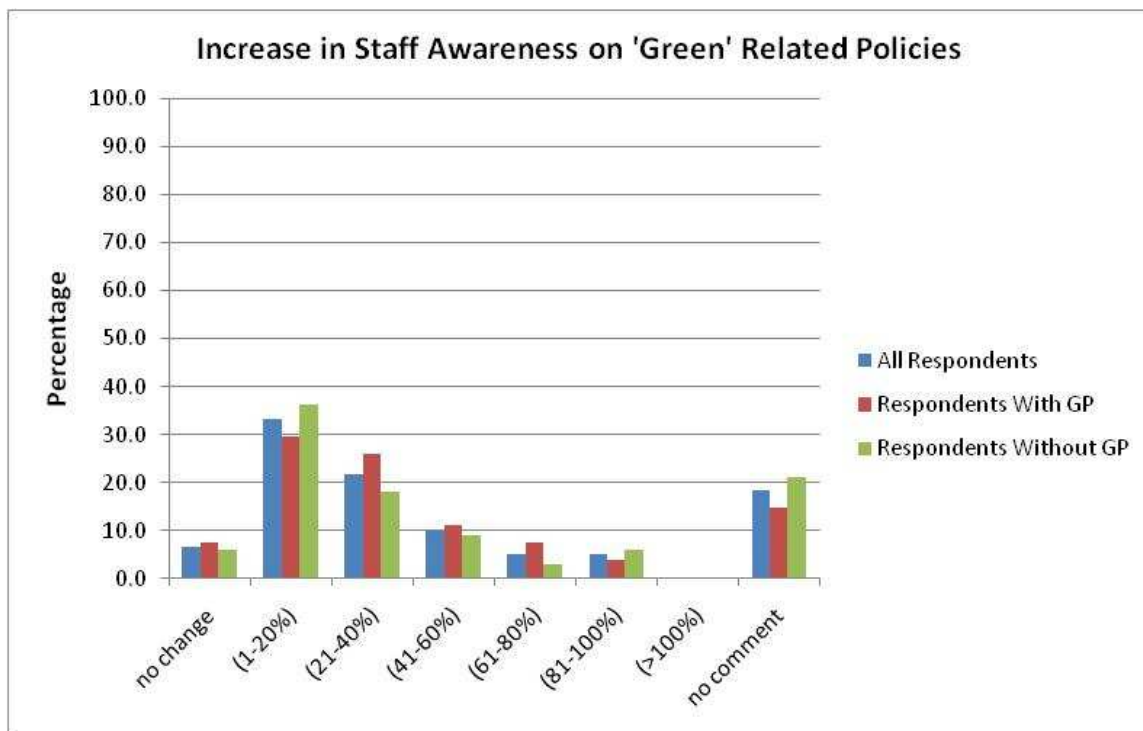
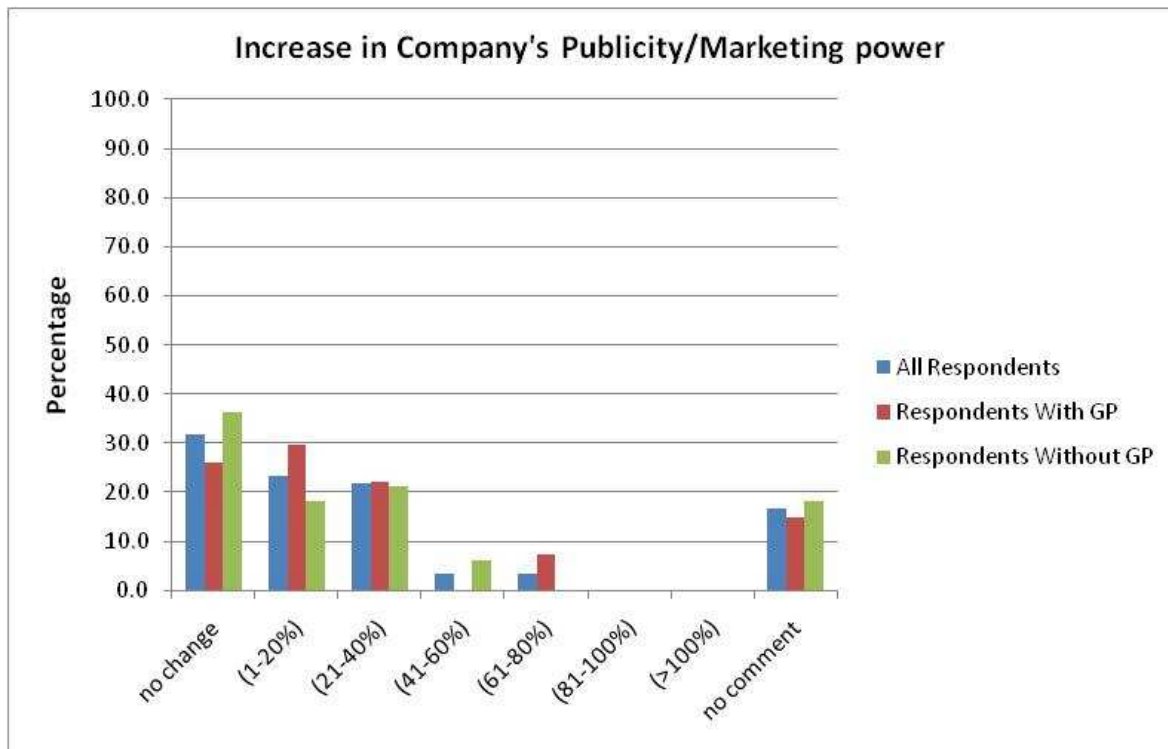
- a split between some who would expect no increase and some who would expect an increase in new business opportunities with clients; and
- a majority would not expect increased collaboration with and between different departments and / or divisions.

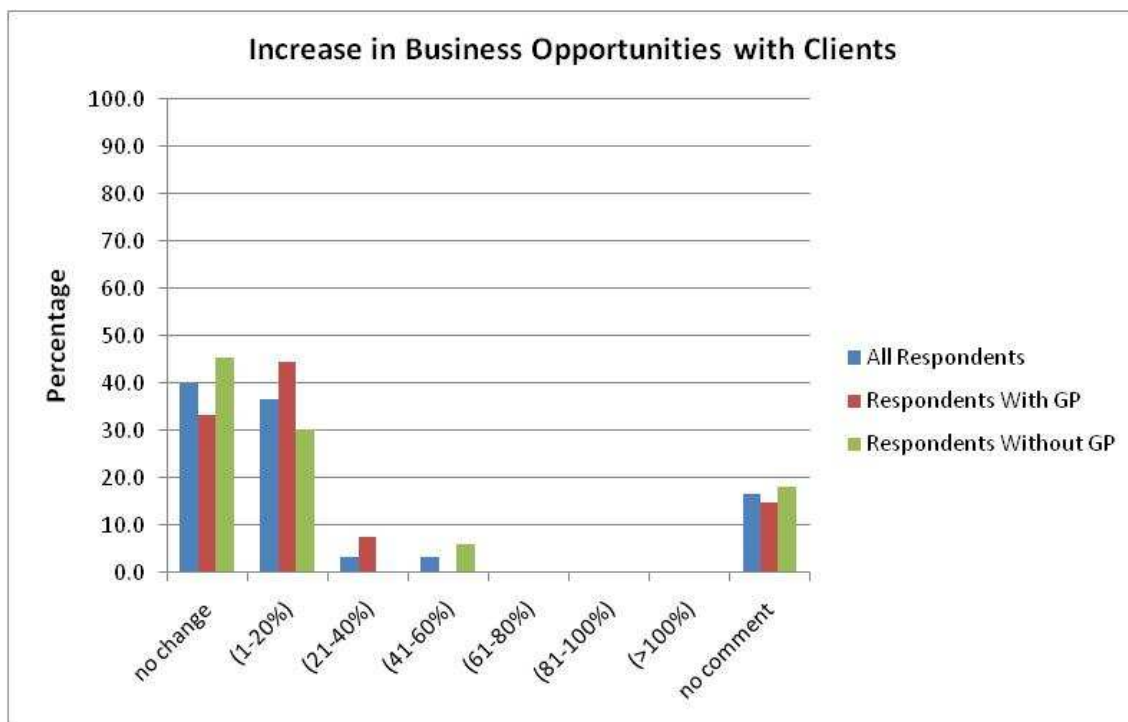
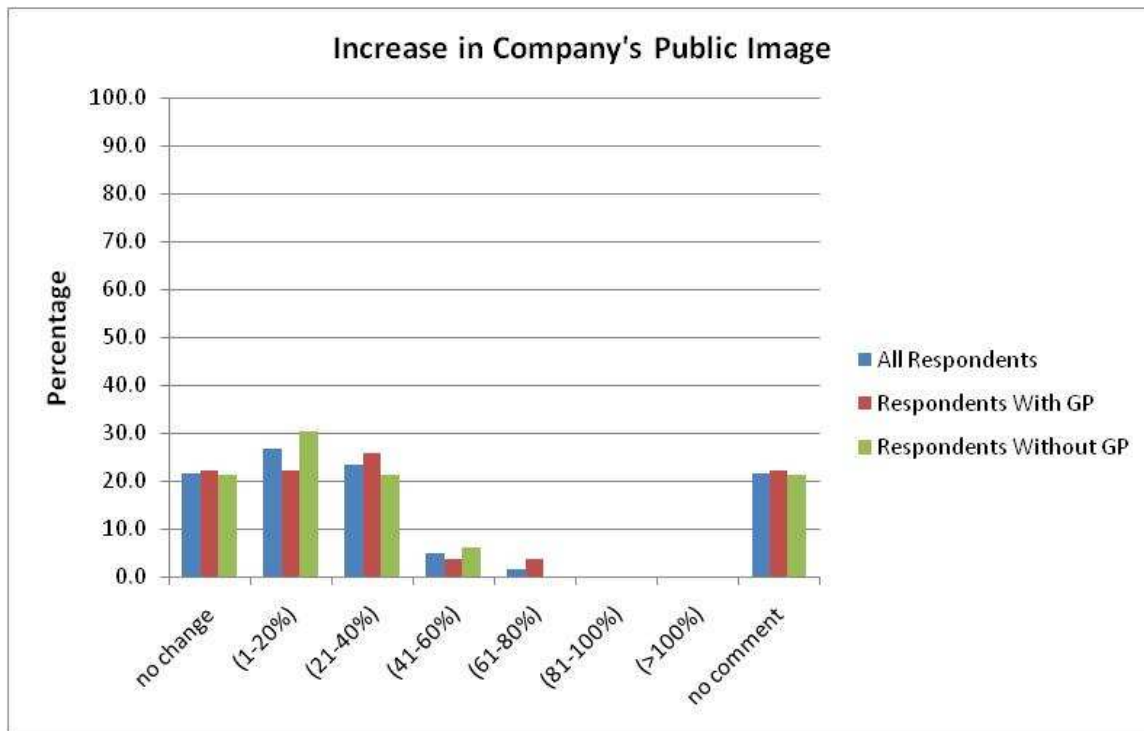
**Diagram 15: Business Condition Changes with GP Implementation**

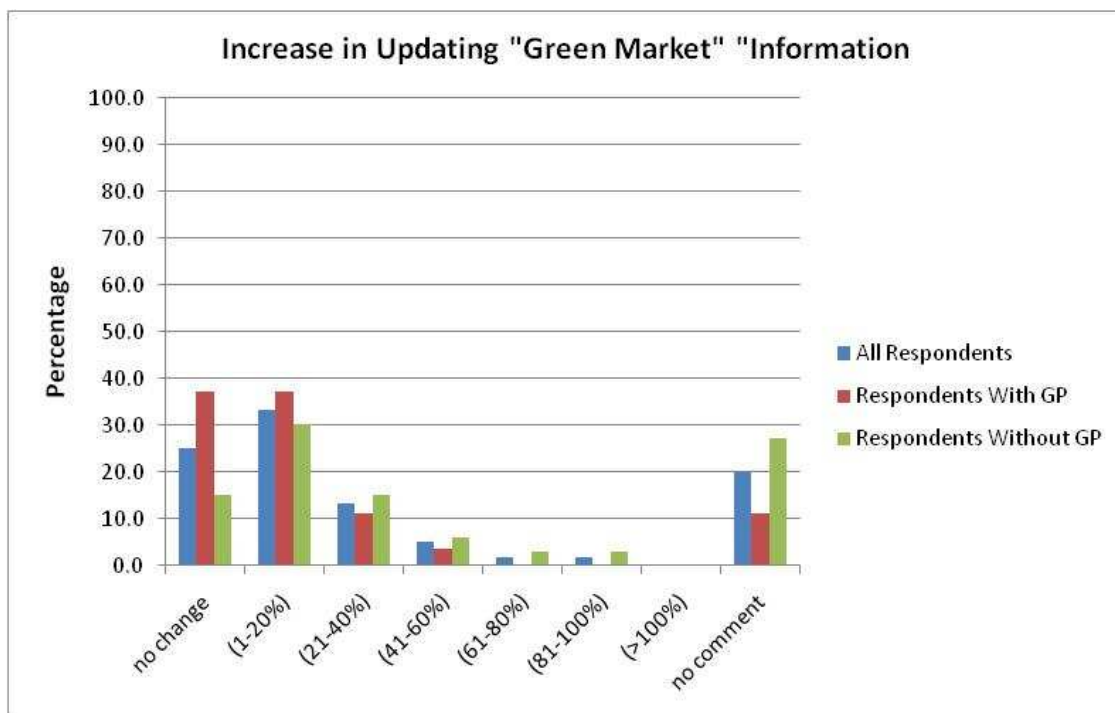
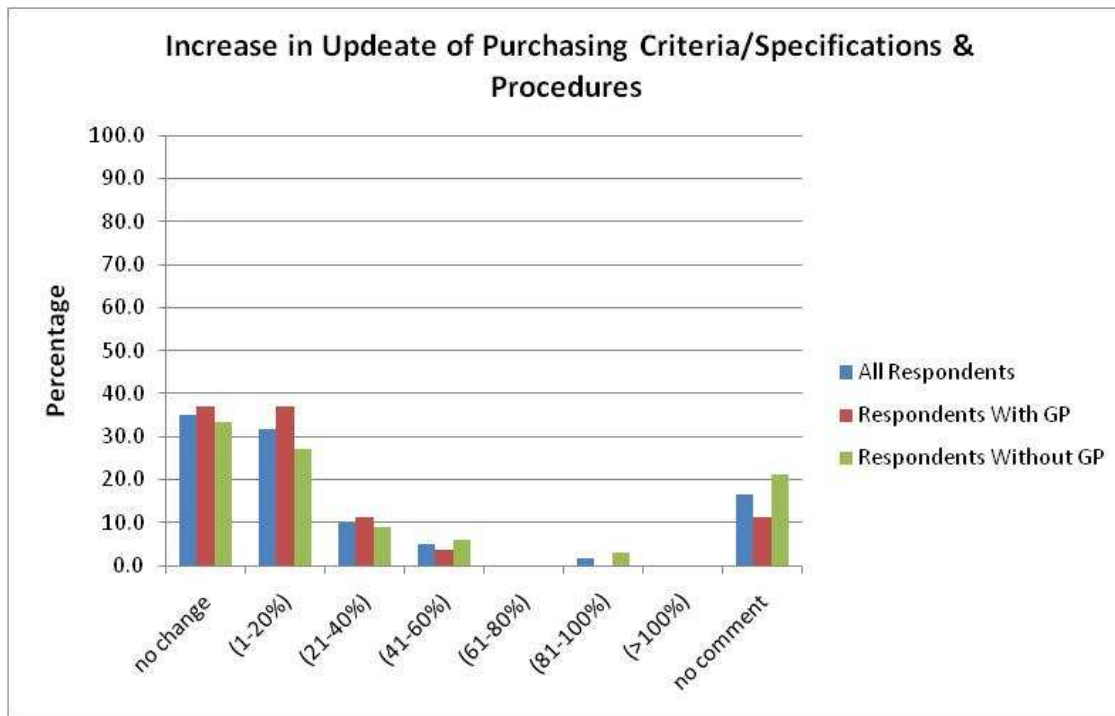


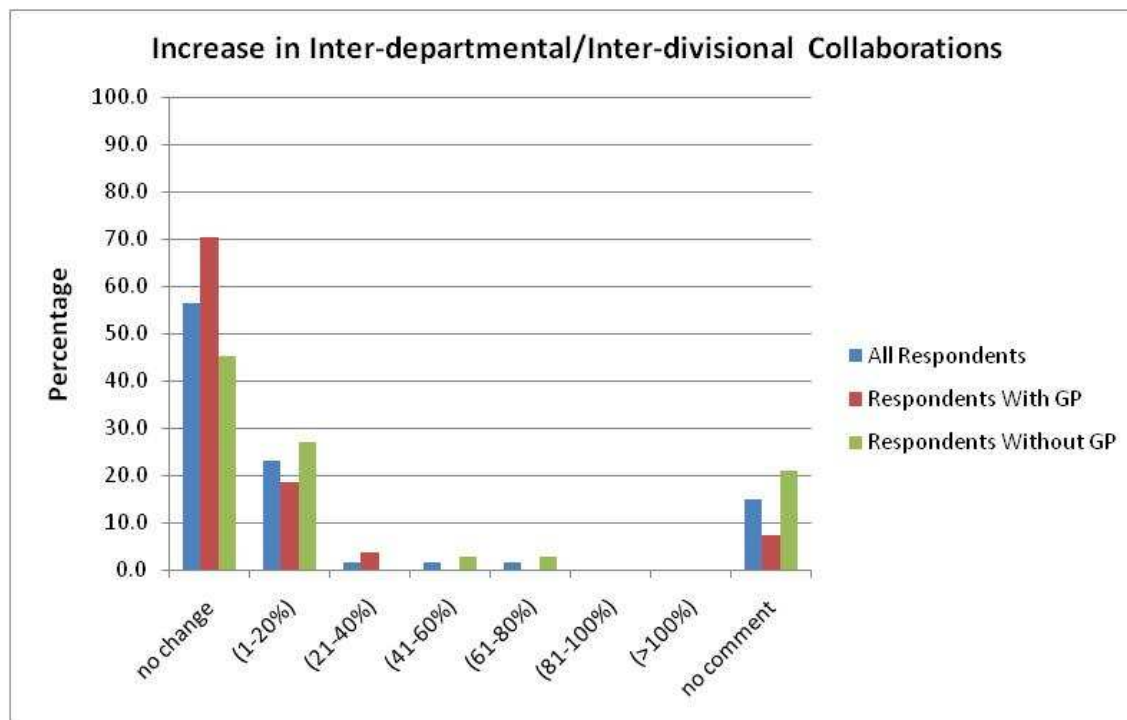












*(viii) Suggestions from GP leaders to address GP implementation obstacles*

In the next part of the Survey, the participants were asked to reflect upon their acquired GP knowledge and experience and provide insight on how they have addressed, or suggest how one might tackle, several possible “obstacles”/“challenges”. Seven (7) such obstacles / challenges were raised and addressed by several “commentators”<sup>48</sup>, as presented below:

**(A) Increases in expenditures without significant improvement in environmental performance**

A common opinion expressed was that companies should be willing to continue GP practices for the sake of the environment. It was also suggested by several commentators that with product design improvements, technological advancements and potential scaling up of market size, green products and services prices would likely decrease. One other comment was that continuing purchasing of a particular and more expensive “green

<sup>48</sup> Of interest, responses were only provided by respondents affiliated with large corporations.

alternative” product would be contingent upon not only price and environmental performance considerations, but also upon determination of good overall product quality and fitness of purpose.

**(B) Difficulty in integrating GP policy into a company’s existing policy(ies)**

The commentators suggested that green purchasing (GP) initiatives and activities could be introduced and embarked upon through a “case-by-case” arrangement, with efforts subsequently made to try to integrate the GP processes and procedural initiatives as far as possible into the existing core policy(ies) of the company. It was pointed out that this would provide time for pertinent management and staff to establish and get comfortable with the new systems and efforts as well as to arrive at suitable means to integrate GP policy aspects into or formulate complementary policy to existing core policy. There was a strong view expressed and shared that senior management commitment and instruction to formulate and integrate policy is / would be essential. One final comment was that if green purchasing were to become a legislated private sector requirement, it is probable that all Hong Kong companies could and would find a way to achieve policy integration.

**(C) Insufficient knowledge on identification of ‘green’ products / services**

It was proposed that support -- training, information dissemination, etc. -- from other professional, non-profit and government entities could greatly assist business managers in introducing and educating their staffs on GP considerations and practices. Further, the commentators suggested that GP would become much more significantly and broadly adopted if public authorities would: (i) take the lead in determining “greener” products and services, (ii) identify and distinguish these environmentally preferable products and services through the application of a standardized environmental label (or some other recognition means), and (3) provide private sector purchasing authorities and officials with

corresponding awareness-raising sessions (e.g. workshops, seminars, etc.) and training opportunities.

**(D) Inadequate supply of ‘green’ products / services for selection in the market**

While suggesting that companies may be able to apply some pressure / influence on suppliers to offer “green” alternatives by acting collectively, an interesting perspective offered by several commentators was that the Government should lead in this regard and is well positioned, as a very large volume purchaser of a wide range of products and services, to exert much greater influence and positively stimulate market supply and demand. Another interesting suggestion was that there should be greater effort and attention applied to educational and promotional initiatives targeted at and for the benefit of locally-based supply industries and businesses. This suggestion was based upon an observation that most GP practitioners in Hong Kong were generally seeking and sourcing green products and services from overseas suppliers.

**(E) Inadequate guidance and / or training on GP implementation**

Several commentators suggested that current and potential GP practitioners should seek information, raise awareness, and share experiences and accomplishments through various means including: the Internet, workshops, exhibitions and seminars. While recognizing that such efforts could be time consuming and may incur costs, they stressed that valuable insight and guidance could be achieved through these means. Further, and in this regard, they expressed a desire to have the Government and other relevant professional bodies consult with local companies and other relevant stakeholders and then prepare and offer comprehensive GP guidelines and training courses customized to recognize and address local conditions and needs.

**(F) Insufficient incentive in terms of financial support and commitment from top management**

It was proposed that if strong senior management support and incentive does not exist within a company, the implementation and application of GP practices may be still be stimulated by external forces / developments. In this regard, it was suggested that if Government officials were to establish and facilitate a green products / services supply chain and take a lead role in implementing, promoting and supporting green public purchasing, this might lead to greater interest and support from top management officials.

**(G) Socio-economic environment may impact upon the sustainability of GP implementation**

A specific suggestion offered was that consideration for tax reductions and subsidies related to the purchase and use of greener product and service alternatives, along with the development and deployment of an educational and promotional campaign – i.e. “*pay for the priceless environment*” – could make GP more attractive, popular, sustainable and well implemented in the private sector..

*(ix) Market strategies and decisions to address possible market / business developments*

When the 60 respondents were asked about how they ensure companies’ market competitiveness in terms of marketing strategies decision, it was found that around 47% of the respondents used the mass media as the main marketing tool while about 35% companies cooperated with green groups and industries associations for marketing. Around 17% companies will depend on information disseminated from Governments to decide their marketing strategies. Besides, it was also shown that customers’ feedbacks, sale leads for suppliers / peers referrals, efforts and initiatives taken from headquarters or mother companies, information collected from seminar, exhibition and trade fair (which

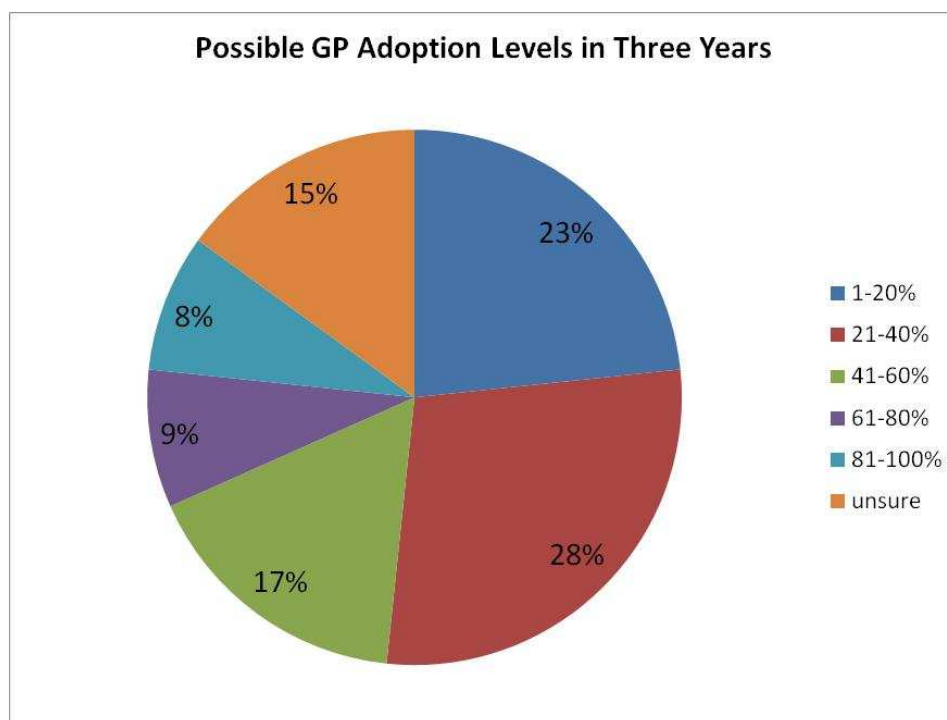
reflect local or international market trends) would affect their marketing decision as well).

(x) Possible GP adoption levels in certain business / industry sectors if GP gains broad interest and attention in next three years

Under the assumption that GP would become a significant issue of consideration / attention within the respondent's industry / business sector, it was estimated that about 28% of the respondents would practise GP by increasing the use of green products to 21-40% of the total expenditure. While some GP activists (about 17%) responded that the expenditure on green products would contribute to their total purchasing amount by up to 41-60% (Diagram 16).

**Diagram 16: Predictions of GP Adoption Levels in Three Years**

**If Green Purchasing Becomes a Significant Issue For Consideration and Attention**



(x) Initiatives to facilitate GP implementation

A general view expressed by the respondents was that they individually and on a single

company basis had minimal clout and influence with their suppliers in terms of encouraging and directing the provision of greener alternative products / services. Nevertheless, over 60% of the respondents identified that they had made efforts to encourage their suppliers to begin generally offering green product / service alternatives, and approximately 75% of this sub-group of respondents had actually tried to alter their product supply chains by incorporating product / service environmental preferable specifications in select requisition and purchasing processes. Regarding another initiative suggestion, 88% of the respondents expressed interest and willingness to formally network in order to share their information and experience and gain insight from others.

#### **(xi) Views and visions from professional purchasers**

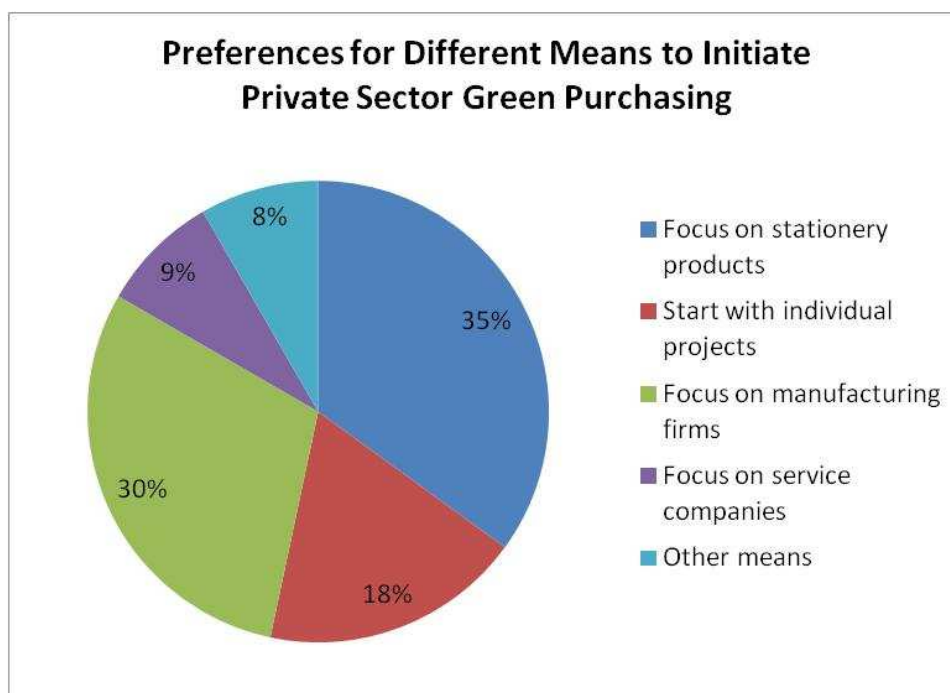
In the last section of the questionnaire, the respondents were requested to share their views and visions on six (6) issues relating to green purchasing implementation and advancement. This section highlights the opinions and suggestions forwarded by the survey participants.

#### **(A) Effective and Direct Ways to Initiate Green Purchasing (GP) Within the Private Sector**

In reaction to four strategy suggestions (and an invitation to offer additional suggestions), approximately 35% of the respondents advocated sector-wide but company-specific GP schemes focused initially upon office stationery supplies (i.e. commonly and frequently bought and high volume consumed products such as paper, etc.). Somewhat complementary, 18% saw greatest merit in taking a “project-by-project” and “expanding scope over time” approach rather than trying to embark on comprehensive and extensive full company implementation initiatives. In contrast, to the two sector-wide GP initiation strategy suggestions, about 30% recommended that greatest attention and focus be

given specifically to the product manufacturers [possibly as a strategy to simultaneously stimulate and begin facilitating both greener production and consumption] while 9% recommended special and initial attention and focus be directed and applied to service companies [possibly as a strategy to simultaneously stimulate and begin facilitating both greener services provision and consumption]. (Refer to *Diagram 17*).

**Diagram 17: Preferred Means to Initiate Private Sector Green Purchasing**



### **(B) Existing Challenges to GP Implementation**

Over 90% of the respondents expressed the view that GP adoption and implementation in the Hong Kong private sector had not been significant to date. Echoing views expressed and supported earlier in the Survey exercises (i.e. both Phase I and Phase II exercises), broad reasons offered for this situation included:

- cost concerns and questioning of potential benefits;
- insufficient interest and awareness both sector-wide and within individual companies;
- lack of easily identifiable, confirmed and sufficient alternative “greener product /

service” choices;

- absence of government incentives and / or leadership and guidance; and
- managerial and operational difficulties and resource requirements relating to internal GP implementation.

### **(C) Senior Management Efforts to Facilitate Corporate Green Purchasing Activities**

Notably and not unexpectedly, 93% of the respondents identified that senior management commitment plays a crucial role in GP implementation and proposed the following key management roles and functions:

- broad and significant decision-making, including making the critical decision to initiate green purchasing as well as determining and establishing the [re-]allocation of financial and personnel resources to properly entrench it;
- consideration, establishment and dissemination of policy direction and guidance;
- arrangement for and overseeing regular performance monitoring in order to potentially direct changes and enhancements;
- encouraging, directing and facilitating staff training;
- contemplating, organizing and possibly enabling knowledge sharing and awareness-raising schemes and initiatives; and
- devising and implementing an “award and penalty system” in order to trigger and foster staff support for and strong effort in GP implementation and delivery.

### **(D) Private Sector Initiatives To Increase Green Purchasing Activity and Levels in Hong Kong**

A common suggestion was that a broad “promote and demonstrate by example” strategy could be a major and effective way to encourage and guide increases in GP adoption and

activity levels in Hong Kong. To pursue and act upon this strategy, it was proposed that private sector officials and companies increase support for and get involved in existing and future “green” events and initiatives (e.g. green carnivals, knowledge sharing/awareness-raising and training workshops and seminars, etc.) at which green purchasing approaches, processes and reference materials could be presented and discussed.

#### **(E) Government Efforts to Support and Stimulate Green Purchasing in Hong Kong**

In this regard, the respondents provided the following three suggestions:

- Government authorities should formulate, legislate and offer tax deductions or subsidies for green product suppliers and / or purchasers / users;
- Government authorities could consider and potentially make green purchasing a legislative requirement;
- Government officials should commit resources and put greater efforts into green purchasing promotional, instructional and monitoring / assessment campaigns; and
- Government officials should increase promotional and awareness-raising efforts, support for, and application and facilitation of greener products and services recognition and labelling schemes (e.g. the Hong Kong Green Label Scheme<sup>49</sup>) as well as other environmental systems (e.g. Environmental Management System) and resources.

#### **(F) Recognition of Green Purchasing As “Basic Good Business Practice”**

Asked to support or refute this position, the respondents generally agreed with it and suggested that its implementation can help develop or enhance a company’s positive public image and provide long-term economic benefit through cost avoidance and savings.

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<sup>49</sup> Details of the Hong Kong Green Label Scheme can be found at [www.greenlabel.org.hk](http://www.greenlabel.org.hk).

## **5. Discussion**

As already identified in the introduction section of this Report, public sector green purchasing has become a formally recognized and acknowledged green initiative for the Government with application in the two public policy areas of environmental protection and environmental industry development and growth in Hong Kong. As emphasized in the Policy Address 2009/10, senior government officials are committed to playing a significant and lead role in the promotion and advancement of green purchasing. Further, specific intentions include:

- purchasing environmentally preferable products and services;
- expanding the green store procurement list; and
- developing and disseminating green purchasing guidelines and specifications.

However, based on the survey results, there are a number of prerequisites before the private sectors can follow practising GP locally, particularly the perception of an increase in expenditure with GP implementation, the inadequate market supply of “green” products and / or services limited the choices for purchasers and end-user. These contribute the major deterrents to GP implement such that many companies and organizations is difficult (without any practical guidance) and reluctant (especially when GP is a voluntary measures) to integrating green purchasing policies and preferences into pre-existing and sometimes core corporate / organizational policies for implementation<sup>50</sup>.

Many Asian countries have implemented various policy tools (e.g. government green purchasing (GGP) legislation) and programs (e.g. green purchasing networks, ecolabelling, etc.) used to promote GP. When compared with other Asian countries and regions, Hong Kong is definitely lagging behind the international trend. Even though there are many green initiatives and policies, such as the mandatory Building Energy Code<sup>51</sup> and the

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<sup>50</sup> Only 25 out of 206 respondents (12%) have established GP policies, procedures and activities.

<sup>51</sup> Details of the Building Energy Codes can be found at <http://www.emsd.gov.hk/emsd/eng/pee/eersb.shtml>.

Asia-Pacific Economic Cooperation (APEC) 25% energy reduction by 2030<sup>52</sup>.

### **5.1 Green Purchasing Benefits**

Based on the experiences from other countries (especially GP has become a normal practice for public procurement), GP is not only an effective tool to address and reduce the burden of environmental problems for society, but also plays a significant role in addressing and combating climate change, given that it can serve as a means to reduce carbon emissions through the demand for and adoption of preferable options and the application of pertinent carbon labels and / or carbon footprint schemes to identify and confirm such options. In fact, GP has also been recognized as capable of working smoothly with other standards and concepts of practice. For example, the promotion, selection and use of “ecolabelled products” (i.e. ISO Type I labels ) in parallel with the application of green purchasing within the framework of ISO 14000 environmental management guidance, can encourage and guide organizations to implement pollution prevention from the source and to educate the public to engage themselves in green consumption, thus leading to the attainment of both positive environmental and financial performance (especially a reduction of associated costs). The priorities to evaluating the GP performance are highly depending on the business nature of the companies. Generally, companies trend to put the energy and waste production as highest priority in evaluating the GP performance. That is because of energy saving can save cost, while waste production has been highly concerned by the public.

The potential of supply chain drivers can also be used as an incentive to promote a corporate social responsibility (CSR) agenda to small and medium-sized enterprises (SMEs),

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<sup>52</sup> APEC, 2007. Sydney APEC Leaders’ Declaration on Climate Change, Energy Security and Clean Development. Retrieved from [http://www.apec.org/etc/medialib/apec\\_media\\_library/downloads/news\\_uploads/2007aelm.Par.0001.File.tmp/07\\_aelm\\_ClimateChangeEnergySec.pdf](http://www.apec.org/etc/medialib/apec_media_library/downloads/news_uploads/2007aelm.Par.0001.File.tmp/07_aelm_ClimateChangeEnergySec.pdf) on 4th January 2010.

notably by drawing attention to potential improvements and corresponding benefits regarding supply chain networks, transaction costs, emissions and risks<sup>53</sup>. Organizational green purchasing practice does not only affect management and operational aspects, but also promotes and demonstrates to staff recycling and / or reuse behaviours and consumption practices (such as purchasing recycled produced and re-work)<sup>54</sup>.

Moreover, GP can bring along with economic benefits such as improve of company's public image, business opportunities as well as enhance of collaboration within companies. Furthermore, GP can also facilitate the company to gather market information on green products and helping to dissemble their green requirements.

Another important finding is that almost all companies found that implement of GP can raise staff awareness on the related green policy(ies). Generally speaking, not only the staff's awareness on environment-related issued can be raised but also the implementation of the green policy(ies) would be facilitated which in turn enhance the company's environmental performance and competitiveness.

Owing to its quantifiable status in nature, GP is a very effective tool to reporting the company's environmental performance and thus improving its corporate image which tends to attract international investors for investment.

## **5.2 Green Purchasing Development Trends**

International trends and market / industry shifts make it inevitable that GP will become a significant issue of consideration and / or attention within the Hong Kong industrial and business sectors. While senior management's understanding of environmental and CSR benefits brought by GP is crucial, the green product availability, environmental performance and quality of the products and ease on collecting information also foster GP

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<sup>53</sup> Cruz, J.M. and Wakolbinger, T., 2008. Multiperiod effects of corporate social responsibility on supply chain networks, transaction costs, emissions, and risk. *International Journal of Production Economics*, 116: 61-74.

<sup>54</sup> Flapper, S.D.P. and Teunter, R.H. 2004. Logistic planning of rework with deteriorating work-in-process. *International Journal of Production Economics*, 88(1): 51-59.

implementation during the purchasing procedure. For local companies who are / going to be GP practitioners, they should investigate the following three (3) aspects: (1) how to encourage the suppliers to provide “green” products and / or services; (2) how to alter the suppliers to modify the product’s specifications to fit their needs; and (3) share their information and experience among other GP practitioners for effective GP implementation. At this moment, the way to facilitate the green product markets is including the environmental products specifications, terms and conditions during the tendering process. In addition, the Government requirement and top management commitment have a cause-and-result relationship. In the absence of mandatory legal requirements and role model on GP implementation performed by the Government, the top management will have very low or no motivation for practising GP because (1) it is not a must; and (2) comparatively higher cost to start buying green products when comparing with conventional products.

On global scale, the governments are increasingly playing an important role as “greening” agents and influencers in the market economy by participating in the market as purchasers while at the same time regulating it through the use of its purchasing power to advance social and environment objectives. As a driving force for formation of a regional GP trend, the Government has the responsibility to take an active role on exerting certain kind of measures (e.g. legislation, provision of “know-how” guidelines, incentives for green suppliers, etc) to enhance the private sector to practise GP. Take the medical and construction sectors as examples, GP is not a usual practice within the operations of such energy-intensive waste-producing industries because of the inadequate economic incentive, legislative requirement, awareness on environmental protection, and the low market availability of green alternatives (e.g. lighting retrofit, paint, "Heating, Ventilating, and Air

Conditioning [HVAC] system, etc)<sup>55</sup>.

In many countries, the government green procurement / purchasing (GGP) [sometimes also identified as green public procurement / purchasing (GPP)] accounts for the largest single promoter and contributor to GP while also sometimes serving as an information and guidance source (i.e. a “role model”) for business and individual consumers to learn from and follow in terms of GP. In this regard, there is a prevalent view that “public authorities must act as ‘leaders’ in the process of changes in consumption towards greener products”<sup>56</sup>.

Actually, a strong correlation has been shown factually between green product and GP from the other countries statistics. For instance, as of the promulgation of “Act on the Promotion of the Purchase of Eco-Products” in all government departments in Korea since 2004, there had been a significant increase of ecolabelled products up to 2,855 products in 2005<sup>57</sup>. In China, the number of green products had been dramatically augmented since the implementation of government green procurement (GGP) in 2002. As a result, Government involvements (e.g. setting up and deployment of GP-related ordinance, establishment of green specifications for products / services for implementation, etc) are crucial in promoting and practising GP.

### **5.3 Potential Future Green Purchasing Developments**

Though GP has increasingly been recognized as an effective means of addressing and reducing negative environmental impacts related to product production and consumption around the world, due to the perception of local companies (or even the Government) that GP is not directly relevant to their operations (especially under the condition that GP is not a legal requirement) and will become a burden on the operation cost, GP is normally not

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<sup>55</sup> The survey result indicated that less than 40% of these two industries had adopted GP.

<sup>56</sup> Kunzlik, P., 2003. Case law analysis-marking the market work for the environment: acceptance of (some) “green” contract award criteria in public procurement. *Journal of Environmental Law*, 15(2): 175-201.

<sup>57</sup> Im, H.J., 2006. International Green Purchasing Network (IGPN) Conference in China. Retrieved from [http://www.igpn.org/workshop/pdf/Presentation%20by%20HJ%20Im%20\(English\).pdf](http://www.igpn.org/workshop/pdf/Presentation%20by%20HJ%20Im%20(English).pdf) on 23-24 March 2006.

considered for adoption.

In fact, based on overseas experiences, GP is proven to be applicable to every industry and even at individually level. People often think that GP shall relate to manufacture only as they are the only one producing products. However, GP is a kind of responsible purchasing practice to the environment. That is nothing to do with the business nature or industries sector of a company. Therefore, more education and promotion shall be done for the right GP concept.

## **6. Recommendations**

Based upon the outcomes and findings of this study, and for the benefit of appropriate policy-makers, private and public sector procurement and purchasing managers and officials, and other stakeholders and interested parties, the following recommendations are offered on how to proceed with strengthening promotion and implementation and significantly advancing green purchasing.

### ***6.1 Recommendations For Companies / Organizations***

Listed below are fourteen (14) recommendations to guide and assist companies and organizations in the private sector to launch and advance green purchasing initiatives and efforts:

- Join and actively participate in the Hong Kong Green Purchasing Charter (and any other emerging or future green purchasing networks) in order to increase knowledge and awareness, gain guidance from other practitioners, and seek allies to cooperate and collaborate in this regard;
- Combine with other companies to increase total demand and collectively exert pressure and influence on common suppliers to supply “greener” products and / or

services;

- Implement and enhance GP efforts in a systematic manner that includes establishment and regular review of core policies, objectives, procedures, guidelines, and monitoring and audit measures; the monitoring and audit measures are essential for ensuring green products quality and performance, and can guide any appropriate procedural revisions, additions and enhancements;
- Require and insure sufficient management and operational staff time and resources are applied to GP knowledge acquisition and awareness-raising to enable effective adoption and implementation of green purchasing processes and procedures;
- Possibly establish an internal GP task force comprising of senior management and other key company officials in order to secure their commitment and facilitate their direction and involvement in GP-related initiatives;
- Recognize the merits and take advantage of local, regional, national and international ecolabelling schemes' environmental performance leadership criteria and ecolabelled products lists and databases when formulating purchasing specifications and / or seeking credible third-party recognition and certification of "greener" products and services;
- Arrange, schedule and conduct regular GP training workshops and other initiatives in order to establish and increase staff knowledge, awareness and competency in the GP field;
- Alternatively and / or additionally, encourage and arrange for company personnel to participate in pertinent workshops, seminars and other information transfer and training initiatives and activities organized and staged by other public and private sector entities;
- When and as appropriate, employ qualified and recognized professional

- organizations and experts to providing consultancy services on GP;
- Consider implementing and maintaining an “*Award and Penalty*” scheme to motivate the staff to consider and act “green”;
  - Encourage and support non-profit organizations’ and / or green groups’ initiatives and activities targeted at promoting and supporting environmental protection and sustainable development;
  - To the greatest extent possible, seek out and incorporate green specifications into the company’s tendering “*terms and conditions*” to encourage staff to partake in green purchasing and suppliers to provide green products and / or services;
  - In launching an internal GP scheme, consider implementing it on a sequential and expanding basis – e.g. starting from individual project to application in a single department to eventual full company application; and
  - As necessary or deemed appropriate, commit and provide extra resources (e.g. financial and possibly personnel time) in order to strengthen specific divisions / departments (e.g. purchasing and environment departments) involved in guiding and taking a lead role in GP implementation.

## **6.2 Recommendations For Government**

Listed below are eight (8) recommendations to guide and assist government authorities and officials to consider and formulate strategies, initiatives and actions that could aid the private sector in launching and advancing green purchasing initiatives and efforts:

- Possibly legislating green purchasing considerations and practices in order to facilitate and accelerate the adoption of green production and consumption in the private sector;
- Provide tax deductions and / or subsidies for companies who supply green products / services and / or select, purchase and use green products/services;

- Establish a government-wide directive and mechanism to guide and enable government purchasers to give consideration and preference to green products and services, even if such products and services have slightly higher initial costs [with these higher initial costs likely offset by lower life cycle operating and disposal costs];
- Provide “know-how” guidance to local private sector GP practitioners and other interested parties, including making readily available public sector green specifications and outlines of public sector green purchasing processes, procedures and other initiatives;
- Increasing and enhancing public and private sector as well as general public promotional and educational efforts regarding green purchasing;
- “Lead by example” in order to create and sustain sufficient market demand that suppliers / distributors / manufacturers are motivated to offer greener products and services, while also providing strong guidance and proven results for the private sector purchasing community;
- Provide more substantial and formal promotion and support of existing environmental performance recognition and labeling (i.e. “ecolabelling”) schemes and systems, like the Hong Kong Green Label Scheme, and consider developing and introducing complementary environmental labeling schemes as well as other guides and tools to assist in green purchasing initiatives and activities; and
- Formally recognize the environmental preference of, reference, and encourage the selection, purchase and use of credibly ecolabelled products and services in public and private sector green purchasing activities and materials.

## **7. Concluding Remarks**

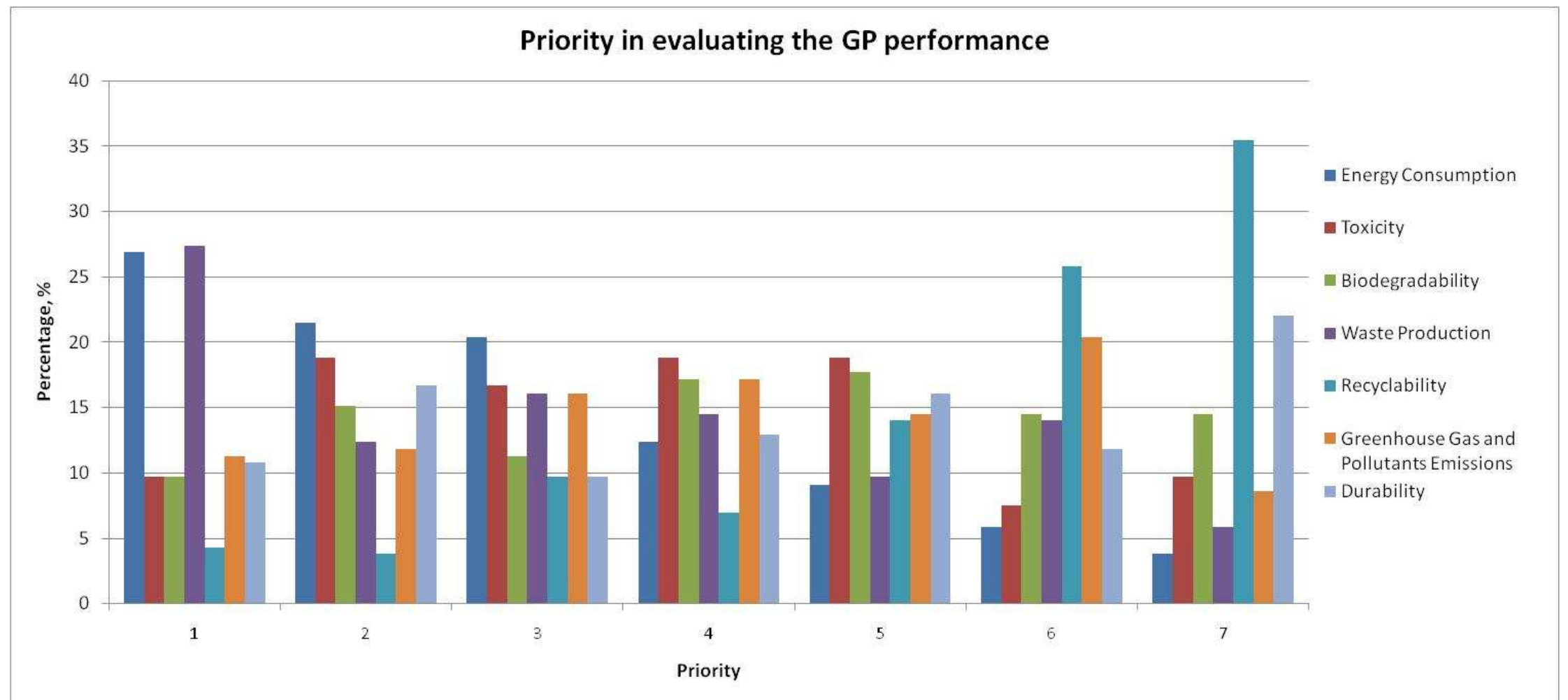
This Report has been prepared to provide background to, and present the findings of, the 2009 Hong Kong Private Sector Green Purchasing Survey Exercise conducted by Green Council officials. As well, the report contains and highlights opinions and recommendations amassed from the Survey participants regarding potential private and public sector considerations, initiatives and actions that could lead to greater private sector interest in and uptake of green purchasing.

It is important to acknowledge that the relatively short and basic nature of the questionnaires applied in the Phase I and Phase II survey exercises – nine and nineteen questions, respectively – and the relatively low participation levels in the two Phases – 206 and 60 respondents – prevent conclusive points to be drawn. The Survey Exercise was devised and conducted with the intention of simply providing a baseline “snapshot” of green purchasing consideration, conditions and initiatives in the private sector.

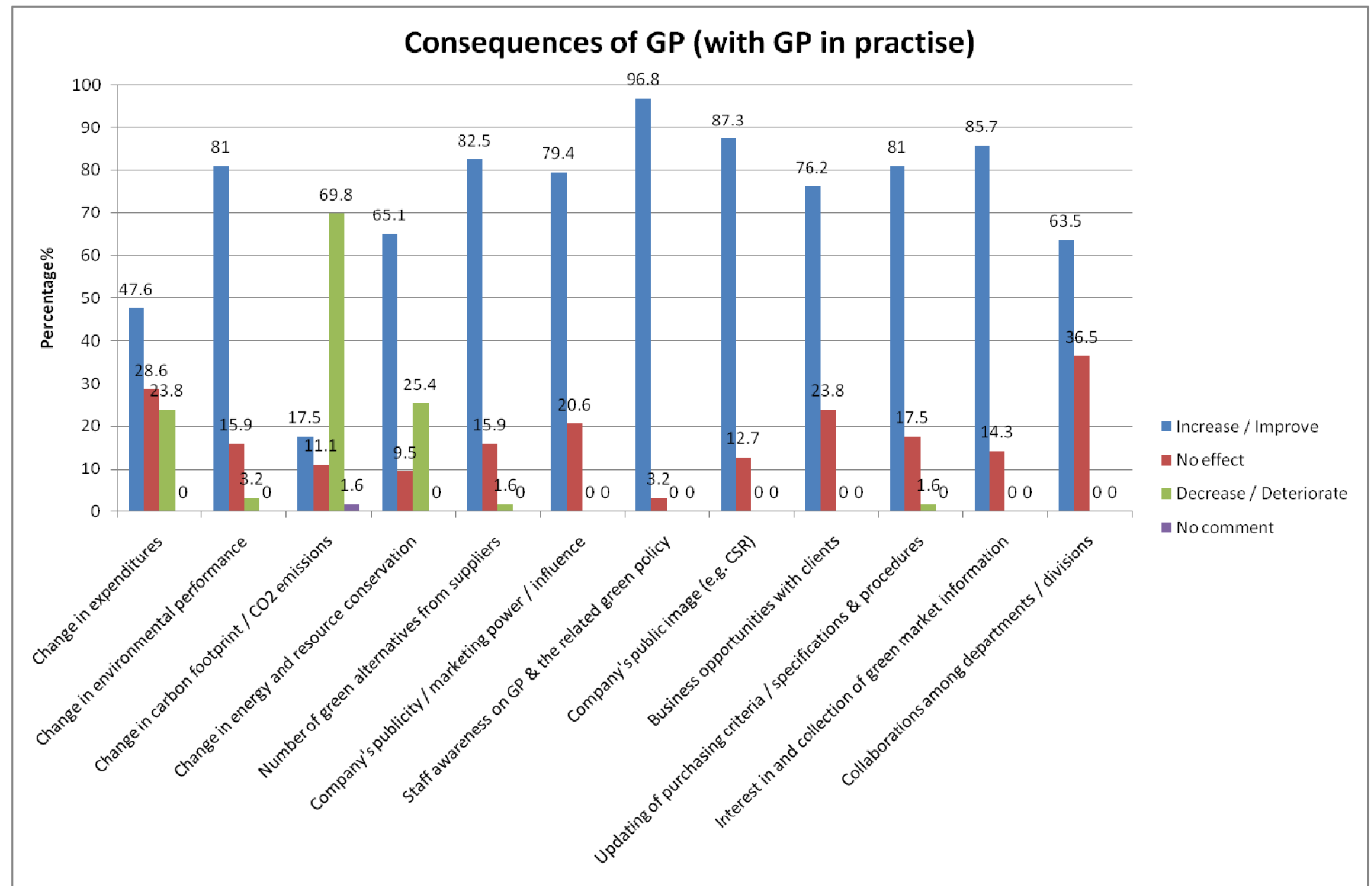
While useful information and insight was obtained through the “simple survey” and is provided in this Report, a final recommendation is that a more elaborate, comprehensive and extensive survey be devised and conducted in perhaps twelve to twenty-four months to more thoroughly assess green purchasing developments, directions and actual conditions in the Hong Kong private sector.

### 8. Figures

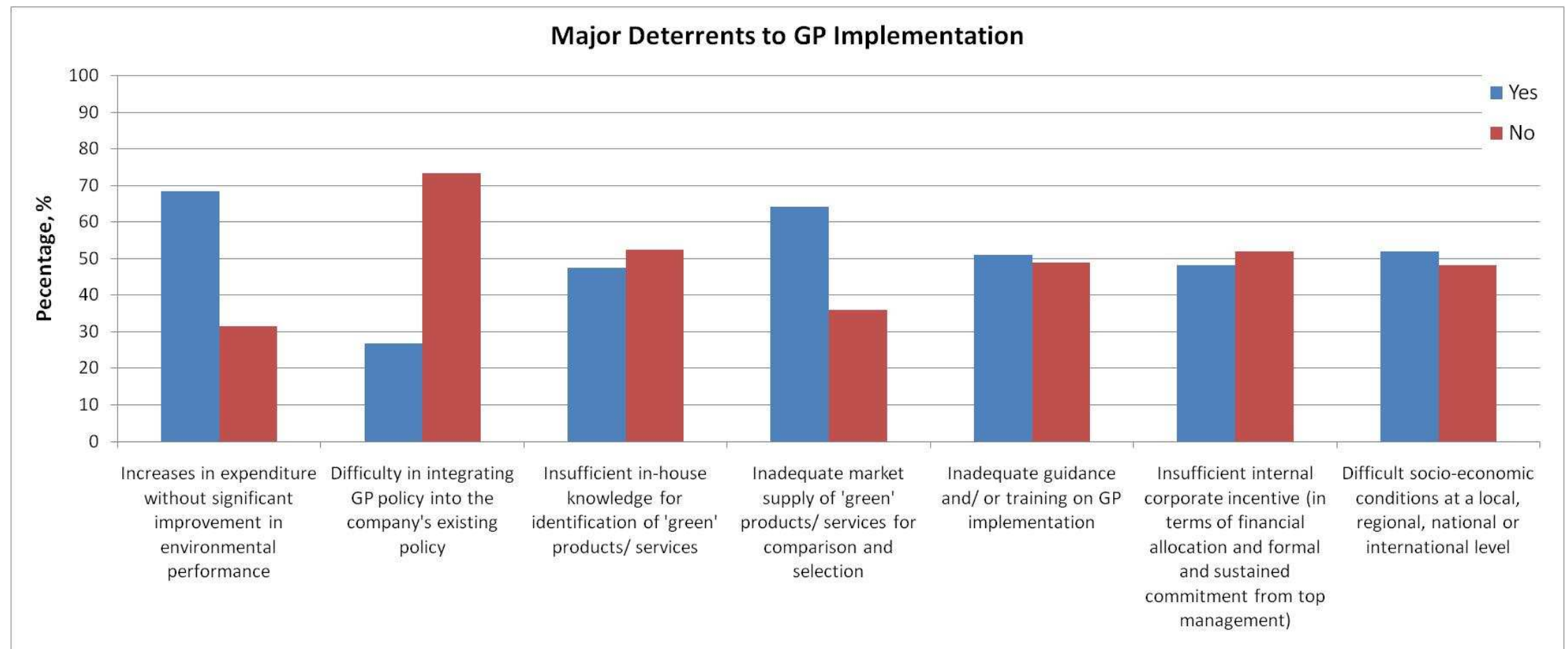
**Figure 1: Priority Ratings for Various Environmental Performance Aspects**



**Figure 2: Impacts of Green Purchasing Implementation**



**Figure 3: Major Deterrents to Green Purchasing Implementation**



**Figure 4: Green Purchasing Appropriateness in Different Industry/Business Sectors**

