Sustainable Consumption for a Better Future

消費者委員會
CONSUMER COUNCIL

Sustainable Consumption for a Better Future – A Study on Consumer Behaviour and Business Reporting

Table of Contents

ABBREVIATIONS

BEUC	Bureau Européen des Unions de Consommateurs (*European consumer organisation*)
CLCV	Consommation, logement et Cadre de Vie (*French consumer organisation*)
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSR	Corporate Social Responsibility
DCC	Danish Consumer Council
EMSD	Electrical and Mechanical Services Department
ESG	Environmental, Social and Governance
EU	European Union
FSC	Forestry Stewardship Council
GRI	Global Reporting Initiative
HSICS	Hang Seng Industry Classification Scheme
KPI	Key Performance Indicator
LED	Light Emitting Diode
MEELS	Mandatory Energy Efficiency Labelling Scheme
MSC	Marine Stewardship Council
NASDAQ	National Association of Securities Dealers Automated Quotations
NGOs	Non-governmental Organisations
OECD	Organisation for Economic Co-operation and Development
SC	Sustainable Consumption
SCI	Sustainable Consumption Index
SCP	Sustainable Consumption and Production
SSE	Sustainable Stock Exchanges Initiative
UN	United Nations
UNEP	United Nations Environment Programme

EXECUTIVE SUMMARY

The Sustainability Challenge

The Vision of the Hong Kong Consumer Council (the "Council") is: "To be the trusted voice in striving for consumer betterment towards safe and sustainable consumption in a fair and just market". Sustainable Consumption (SC) is one of the Council's priorities and in this report the Council publishes its introductory work on SC to provide the platform for future work and engagement with partner organisations.

Economic, population and consumption growth have caused immense and often negative impacts on the Earth's natural environment and resource base. Excessive extraction of natural resources, loss of habitats and change in the atmosphere have become very profound. East Asia is increasing its contribution to this global sustainability risk as a result of its economic success in recent years.

Over the past few decades Hong Kong has developed itself from a fisherman's port to become one of the ten wealthiest economies in the world, such rapid development also has transformed the lifestyles and consumption pattern of its people, giving rise to environmental impacts both at home and afar in the countries from which Hong Kong imports goods, foods and raw materials. For instance, on a per capita basis Hong Kong people are some of the world's largest consumers of sea-caught fish and of the highly polluting fossil fuel coal. Hong Kong could play an important role in illustrating how sustainability can be consistent with economic development. Because of its role as an East Asian economy with an Organisation for Economic Co-operation and Development (OECD) level of economic development, and as one of the world's premier international cities, Hong Kong provides inspiration and example for others.

Making the Hong Kong economy sustainable will require a partnership approach, with Government, business, consumers and other stakeholders all playing a part. The role played by Government includes providing infrastructure, such as public transport and recycling facilities, collecting and disclosing useful data, developing and enforcing effective regulations and fiscal regimes so that businesses are required or are incentivised to look after the environment. Businesses need to provide consumers with greener choices and also accurate and actionable information on products so that consumers can make well-informed decisions about what and how to consume. Consumer organisations and other non-government organisations (NGOs) can act as watchdogs, advocate consumers' concerns and provide public education to empower consumers towards the right behaviour.

Consumers have a major role to play in realising sustainability for the world. They need to recognise that they too have responsibilities and play an important role: the choices they make matter. Individual people decide what products to buy, whether to repair a good or dispose of it, to borrow a seldom used good from friends and neighbours, or whether to buy a new one hardly ever to be used. Consumers need to be open minded about learning the sustainability impacts of their choices and take responsibility for putting their beliefs into action by making purchasing decisions consistent with their concern for the environment.

The United Nations Environment Programme (UNEP) provides a definition of Sustainable Consumption and Production (SCP)[1]: "SCP is a holistic approach to minimizing the negative environmental impacts from consumption and production systems while promoting quality of life for all". In 2015, the UN 2030 Agenda for Sustainable Development was released, with specific targets were set under the SCP Goal. Hong Kong as one of the global citizens, shall play its part to support this important global agenda.

Consumer Survey of Attitude and Behaviour to Sustainable Consumption

The Council undertook a telephone survey of a thousand Hong Kong people to develop a baseline picture of consumers' awareness, behaviour and readiness towards SC. This is the first time such a survey has been undertaken in Hong Kong and the Council considers there is merit in repeating it in future years to assess how attitudes and behaviours develop over time.

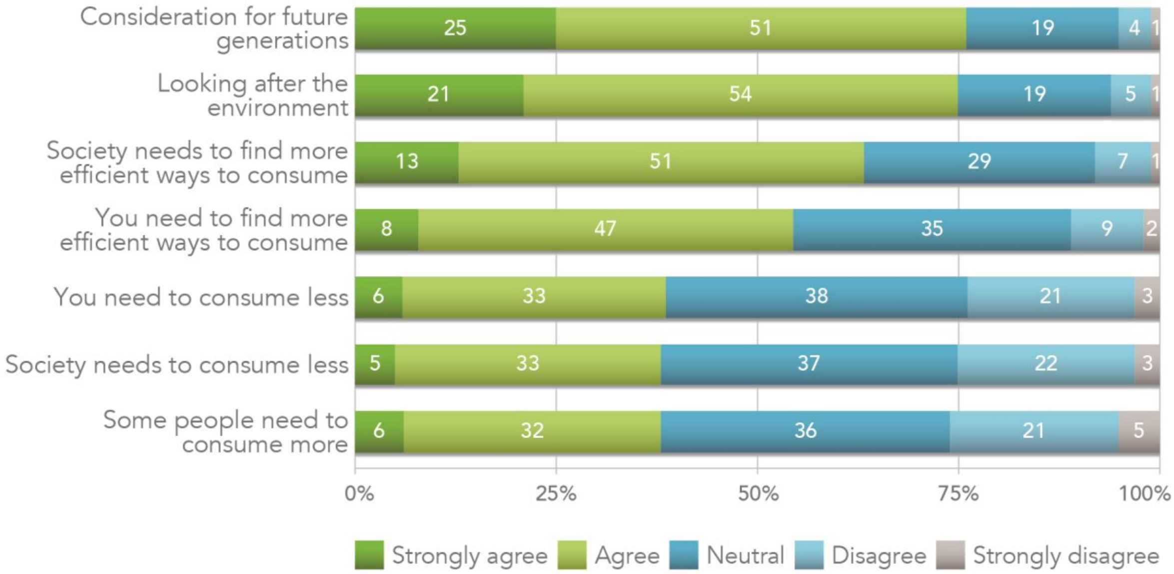
Consumers' Awareness

Findings from the survey show that close to 40% of people are concerned about the environment and considered their consumption had an impact on the environment. However, a sizeable minority, around 22% of Hong Kong consumers, showed little or no concern.

Hong Kong people's intuitive understanding of SC is close to UNEP's definition as seen in Figure I below. The top three issues consumers associate with SC are *thinking about the future generations* (76%), *looking after the environment* (75%), and *society having to consume more efficiently* (64%). Interesting, fewer people felt they should *consume less* (39%).

[1] Sustainable Consumption and Production (2015) "A Handbook For Policy Makers".

Figure I: What does "Sustainable Consumption" mean to you?



Remarks: The sum of the percentages may not equal to 100 due to rounding

Their top topics for inclusion - see Figure 4 in the main report - embraces ideas such as *reducing waste* (75%), *using energy efficiently* (70%), *avoiding using harmful substance and production method* (66%) and *protecting endangered species* (62%). More remote non-environmental ethical issues such as *fair trade* (52%) and *animal welfare* (51%) drew attention but were embraced less strongly.

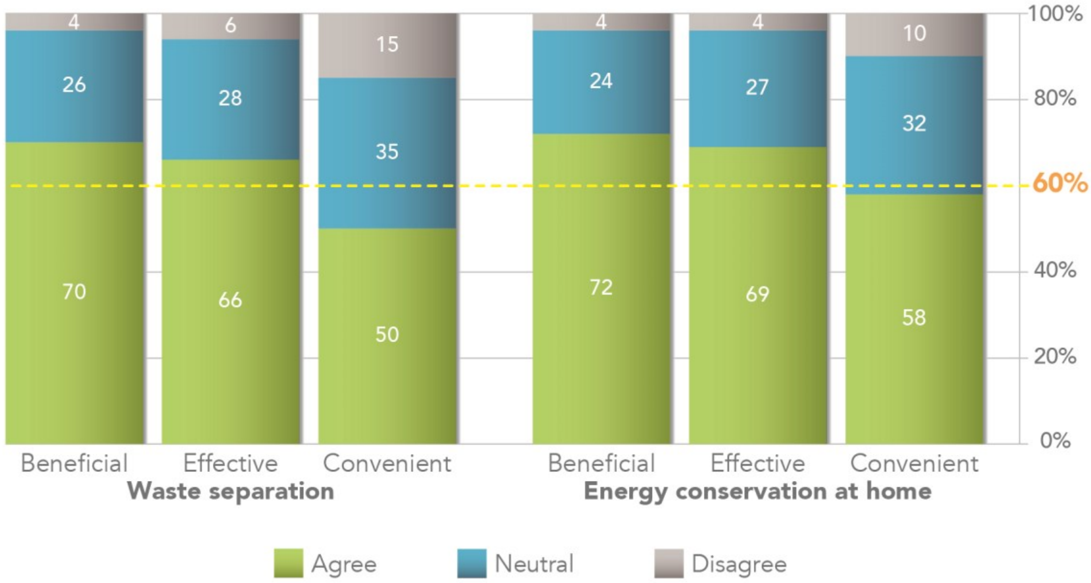
Consumers' Behaviour

People were asked - results are in Figures 7, 9 and 10 of the main report - the extent to which sustainability already influenced their purchases and behaviour. There were high levels of reported take-up of purchasing activities and behaviours which saved money and where there was a credible point of sale information (energy-efficient appliance, 78% *Strongly agree* or *Agree*) or which were simple to execute (turning lights off, 76% *Always* or *Usually*). Support was lower where the sustainable choice was more expensive (green labelled products, 35% *Strongly agree* or *Agree*), or where the behaviour change took more effort (using shades and blinds instead of air-conditioning, 58% *Always* or *Usually*) or a lifestyle change (reduce their flying, 35% *Strongly agree* or *Agree*).

There is still much room for Hong Kong people to enhance their SC behaviours to become an "always" habit rather than "usually" or "sometimes" when asked. Findings indicated that older people, perhaps because they developed more frugal lifestyles when they were younger, were more likely to recycle and pack uneaten food. In this respect, it would seem younger people could learn lessons from their elders.

As seen in Figure II there was a significant fall in percentage of people *believing there are benefits* from recycling and energy efficiency, the *perceived effectiveness* of taking action and the *reported convenience* of taking actions. People need to be helped to convert good intentions into action through education and better recycling infrastructure, and ensuring there is a range of suitable sustainable product choices e.g. more durable products.

Figure II: Attitudes towards energy conservation & waste separation



Consumers' Readiness

Our survey suggests there is a market for sustainable products and services with the majority of the population saying they are prepared to pay 5% (and some much more) for sustainable products and services. This is good news for firms seeking to capitalise on the 'green dollar' market. But success will require the establishment of trust between the producer and consumer so that there is confidence that the claimed SC character of a particular good really exists. Events like the recent scandal about a well-known car manufacturer's cheating on official air emission tests can shake consumer confidence in the veracity of business claims. There is however the possibility of creating a virtuous cycle, i.e., as sustainable products become main stream, their prices fall, thus widening the scope of the market. This has been experienced already with many green items such as LED lightbulbs. These have prospered through the provision of green choices and accurate information (that is easily accessible, credible and available at point of sale) by business and actions by Government to formulate the right regulation and infrastructure to galvanise this support.

A minority of consumers, about 25%, say they are NOT prepared to pay a price premium for more sustainable products, especially if they provide no greater safety or economy in-use. This was especially true for those consumers with no income (Figure 13 of main report).

Only about half of the respondents said they usually purchased sustainable products. Younger consumers and students claimed they would be prepared to pay more, but this did not translate into action, with only a minority of young people saying they usually purchased sustainable products. Factors holding them back were lack of suitable information, high prices or lack of suitable products (See Figure 16 of the main report). Factors that attracted people towards making sustainable purchases were: concern for the environment, energy conservation and particularly for retired people, consideration for the interests of the next generation (see Figure 15 of main report).

Sustainable Consumption Index (SCI)

The Council has constructed a set of summary statistics, the SCI, to combine responses to the survey into a set of figures that can be tracked over time. These statistics were grouped into three indexes making up the "awareness-behaviour-readiness" model used in the survey. Each of the three indexes was itself made up of three components – making a total of nine such components which are shown in Figure 18 of the main report. The highest component score was for: "Attitude towards energy conservation" and "Conservation behaviour" in aspects related to electricity, water, traffic and waste reduction. Scores were slightly lower for "Purchasing behaviour" (towards energy efficient products, food, endangered animals and fair trade) and current "Recycling behaviour". The lowest scores were recorded on the consumers' willingness to further change their purchases of products in consideration of sustainable consumption.

Overall the results suggest there is a high level of awareness of SC amongst Hong Kong people, with the majority of consumers saying they are concerned about SC issues. Nevertheless, people's support and action could be strengthened. The support is felt most strongly for issues they can directly experience such as reducing waste and energy conservation but felt less strongly for issues they do not directly control like fair trade and animal welfare. Education is therefore needed to enhance their understanding of SC issues and instil the belief that as consumers they can influence issues through their purchasing choices.

As shown already, there is also a gulf between people's intellectual agreement about a SC issue being important, and the extent to which they can take action as consumers and citizens. Action is greatest for simple behaviour such as switching off lights, but consumers also need to push themselves to undertake more difficult challenging actions such as recycling.

Reporting of Environmental Sustainability by Businesses

Consumers interested in sustainability issues, apart from selecting goods on the basis of their distinct characteristics, might also be interested in the SCP performance and behaviour of the enterprise that they purchase from. Business is no longer expected to only deliver goods and services, but to be responsive for a much wider public interest in protecting the environment and to an extent paying regard for social issues. This wider definition of the role of businesses is sometimes called the triple bottom line, i.e., businesses' contribution to the economic, ecological and social spheres. For businesses in the service sector this might include reporting direct and indirect (via purchases of electricity and consumables) emissions of greenhouse gas, use of resources, and also the safety and fair treatment of their workers.

It is evident from the survey results that consumers are interested in purchasing from businesses that make these sorts of efforts, and deliver the benefits. The Council undertook a study on the status and quality of a sample of businesses' public reporting of information related to SCP. It reviewed SCP reporting by 100 enterprises listed on the Stock Exchange of Hong Kong Ltd (the Exchange) of which 53 had business activity within Hong Kong.

As shown in Figure III below, of the 100 enterprises, 41 provided some sort of environmental statements either in their annual report or by other means (e.g. standalone report, website), but some of them gave a statement on what they do or had done. Even worse, 5 out of the 41 companies only made general remarks without making any specific reference to the policies or results.

Only a handful of these reports contained quantitative information, and fewer proposed targets on resources reduction and reported performance against these targets. The reported aspects are shown in the figure below.

Figure III: Aspects of environmental information reported

Reported Aspects	No. of Companies [a]
Have specific environmental policies / measures	30
Improvement plan / policy on energy or resources consumption, impact on environment of the company's operation	26
Waste management initiatives	13
Production / provision of environmental friendly products / services	12
Community involvement with environmental concerns	7
Data on environmental reduction results	7
Data on energy or resources consumption / greenhouse gas (GHG) emissions	7
Supply chain management in relation to environmental impact	6
Only gave general remarks but not reported on specific environmental policies / measures and not reported on production / provision of environmental friendly products / services	5
Production / provision of environmental friendly products / services but have no specific environmental policies / measures	5
Target on reduction of energy or resources consumption / GHG emissions	3
Use of GRI or the Exchange ESG Guide in reporting	3
Total number of companies	41

[a] Some companies report information under multiple aspects

There have been a number of international and domestic initiatives to standardise environmental reporting such as the Global Reporting Initiative (GRI) or the Exchange's reporting guidelines. Around the world the trend has been for either governments or the listing stock markets to recommend or require firms to undertake sustainability reporting. Mandatory reporting is fast becoming the norm around the world. In 2013, of 180 national reporting policies and initiatives in 45 countries, 72% was mandatory and 28% was voluntary. In the Exchange's recent public consultation, the Council in its response, supported the Exchange's proposal of amending the Listing Rules that issuers must disclose ESG information set out in the ESG Guide on an annual basis and the proposal of amending the ESG Guide to bring in the "comply or explain" approach on the general disclosures and key performance indicators (KPIs) in the "Environmental" subject area. The Council also recommended that all reports be held on an easily accessed platform so that stakeholders could review disclosure by companies in a transparent manner. A longer-term objective is that ESG reports should be seen as a useful strategic tool by business for the public to understand their ESG impacts.

Overseas Consumer Organisations' Initiatives on Sustainable Consumption

Internationally, there are many good examples of work being undertaken by other consumer organisations that the Council can learn from. Sister consumer organisations are, like the Council, using magazines, product tests and public policy advocacy to champion SC. Their experience indicated that there is no single silver bullet to delivering SC, but rather they have to adopt a customised approach according to local context and the resources available.

Consumer organisations see their role as providers of impartial information to enable consumers to make the right sustainable choices. They were broadly in favour of "choice editing", the removal from the market of products having poor environmental performance – but only if there were suitable and affordable substitutes available.

There are also some interesting ideas on new work areas including product durability, certification schemes and lobbying for energy efficiency. There is nevertheless a suspicion that manufacturers have no incentive to design products for long life, and instead knowingly using cheaper, shorter lived components. Promoting the logic of designing products to maximise durability, enhance the ability to repair and upgrade, rather than the prevailing logic to maintain a "produce-use-dispose" product cycle represents a dramatic challenge to manufacturing and could be an interesting area of future work for the Council and its international partners.

Energy efficiency, food sustainability and waste management could serve as the focuses for the Council in coming years.

The Way Forward

With this document the Council is taking the very first step in the strategic direction of advocating for SC. As SC is a very complex and global subject, it will evolve over time and the Council has to be very vigilant and diligent in pursuing its strategies and actions to maximise benefits of its efforts to consumers.

The Council looks forward to playing its role in the necessary partnership with the Government and businesses to make Hong Kong's consumption more sustainable. The Council can make an important contribution to facilitate efforts by consumers wishing to make more sustainable choices; to provide consumers with the practical tools and necessary information; and to advise the Government and businesses on ways to support consumers who seek to live more sustainably have the appropriate facilities and products at hand.

Consumers / Citizens

- Consumers have a responsibility as citizens to make themselves better informed of the impact their consumption has on the environment and other key themes
- They need to make purchases and take actions consistent with their beliefs. Businesses will only make more sustainable products available if consumers demand them.
- Consumers should not be satisfied with merely undertaking simple and minor changes to their lifestyles. They also need to push themselves to make more challenging changes.

The Consumer Council

Advocating for SC is to be one of the Council's major new themes of activity. It seeks to take this forward in four distinct ways.

- *Behaviour change*: The Council will use its communication channels to influence and educate the SC behaviour of consumers throughout its educational and information provision activities.
- *International coordination*: The Council will engage with other consumer organisations to monitor global measures that need to be taken and to facilitate meaningful collaboration.
- *Communicating the consumer viewpoint*: The Council will, resources permitting, use mechanisms like surveys, focus groups / interviews or online media to understand the consumer priorities and concerns with regard to sustainability issues and feed into Government, business or to the media.
- *Alignment*: The Council will adopt a partnership approach to realise the SCP goal. There are many good initiatives in Hong Kong that are being undertaken by different stakeholders, gaps in action or synergy in new activities shall be instigated. The Council will play a necessary role to partner with like-minded organisations to work jointly, or to support meaningful initiatives led by others.

Government

- There are also areas of sustainability that require close or even synchronised actions amongst different Bureaux and statutory bodies' areas of responsibility. An inter-departmental committee has been used to co-ordinate implementation of the Hong Kong Climate Change Report 2015. This might be a useful approach to SCP goal also.
- Scaling up effort in collecting, aggregating, analysing and disclosing useful data will be essential for effective planning and actions by the society. For example, the Government may consider undertaking a more systematic assessment of how Hong Kong consumption patterns (of water, foods, textiles, timber products) give rise to pressures on other countries' scarce resources and whether more can be done to reduce primary extraction and encourage more circular materials[2] use within the Hong Kong economy.

[2] Circular or circular economy is an economy where materials are regenerated from waste either through reuse, repair or recycling, rather than being made.

- The plastic bag levy and the concessionary duty rates on ultra low sulphur diesel show the power of carefully targeted product charges or subsidies in influencing consumer behaviour. These might be worth pursuing for to drive other SC choices too.

- Hong Kong faces significant challenges in terms of availability of landfill for waste disposal. More can be done to enable consumers to more easily deposit and arrange collection of recyclable waste.

- The setting of energy efficiency standards has now been tightened, but there is a need to further increase the types of appliances included in the energy efficient labelling scheme and also to drive and accelerate the purchase decisions towards more energy-efficient ones. The Government might consider incentivising take-up of the most energy-efficient products through special incentive or support schemes.

- Government might encourage even more experiential learning in the school curriculum as well as the provision of information about sustainable food, energy conservation or water efficiency.

Business

- Businesses need to provide high-quality, pertinent and trustworthy information about the sustainability performance of the products they sell, and at the point of sale. This may include use of sustainability certification schemes.

- Businesses should not just react to, but also anticipate that consumers will demand to consume more sustainably, and therefore proactively bring sustainable products to the local market.

- Businesses ESG reports obviously have much rooms to improve and the quality and level of disclosure should be in line with the reporting guidelines issues by the Exchange or equivalent bodies, to provide meaningful data on a business performance.

Chapter 1

The Sustainable Consumption Challenge

Chapter 1 The Sustainable Consumption Challenge

Key Points

Economic, population and consumption growth have caused immense and often negative impacts on the Earth's natural environment and resource base. East Asia is increasing its contribution to this global sustainability risk as a result of its economic success in recent years.

Hong Kong's economy grew by 170% in the past 30 years. The city's consumption has given rise to environmental impacts both at home and afar in the countries from which we import.

Managing global issues require global collaboration. The international community, with leadership from the UN, has released a set of 17 goals for Sustainable Development to be reached by 2030. Sustainable Consumption and Production is one of the goals.

Hong Kong, as a part of the world has to take immediate action to support these initiatives. Collaboration from different sections of society, i.e., policymakers setting the right framework and providing infrastructure; businesses providing an appropriate mix of sustainable products and information about their environmental attributes; and consumer organisations and other NGOs acting as a watchdog, advocating consumer concerns and providing public education; all contribute to the development of sustainability.

Consumers have a major role to play in the transformation but are often unaware of their power. New analytical approaches can reveal how different consumer choices on transport, food purchases, recycling and repair of goods can have profound effects on energy and resource use.

1.1 Introduction

It is hard for people with lifespans measured in decades to properly appreciate the extent to which humanity has already affected the world's environment over the last few hundred years. Geologists, who view history over hundreds of millions of years, have coined the term 'The Anthropocene' to signify the epoch during which the changes people are making to the planet, in terms of species extinction, creation of synthetic chemicals and novel nuclear materials, and changes in atmospheric composition will be detectable millions of years hence. Since the start of the industrial revolution in the eighteenth century fossil fuels: first coal, followed by oil and gas, have replaced biomass as the main source of energy. These dense energy sources have allowed people to leave the land and live in cities to develop sophisticated industrial economies which required extraction of biological and mineral resources.

As consumers in Asian countries begin to experience levels of affluence similar to those in North America and Europe the impact humanity has on the Earth will only become more intense, unless profound changes are made to the way we produce and consume. This is the nature of the Sustainable Consumption and Production (SCP) challenge. At the end of this chapter a table demonstrates the key demographic, economic and environmental data of Asian economies compared to the established affluent economies of Europe and North America.

A number of statistics can hopefully illustrate the scale of people's impact on the environment. Since 1750 the world's population has grown almost tenfold from 800 million to 7.3 billion[3]. One economist[4] estimated the world economy grew 600 fold from US$128 billion to US$78 trillion over the same period of time. Population is projected to continue growing up to 9 billion by 2050.

Our lifestyles already require the extraction and mobilisation of vast, almost unimaginable quantities of resources. Between 1970 and 2008 the world's use of biomass, fossil fuels, construction materials and ores grew from 25 billion to 70 billion tonnes[5]. In the Asia-Pacific region, the growth over the same period of time was 6.2 billion to 37.5 billion tonnes. These rates already greatly exceed the natural background flows of materials. The British Geological Survey[6] estimates that 57 billion tonnes of earth and rock is annually moved through construction activities, three times more than the mass of sediment moved by rivers and oceans. A number of scientists have independently estimated that a third of all photosynthesis in the world is appropriated by human leaving just two-thirds for natural ecosystem processes. Around 83% of the world's land surface is influenced by people within which 36% is dominated by human[7].

This huge expansion in the amount of human activity and consumption has meant that people are no longer incidental to natural processes but play the largest part in affecting it. There has been a well-documented rise in the greenhouse gas CO_2 concentration over the last 250 years from 280ppm to 400ppm – the highest level in the past 20 million years. The world is already experiencing climate change, for instance the atypically warm weather and unusual patterns of rainfall for the last two decades. On 30th December 2015 the temperature at the North Pole was +1°C rather than the long term average of -28°C (UK Met Office), a result of climate change and the El Niño flows of ocean water.

Consumers play a pivotal role in the necessary transformations to our economy, but are largely unaware of their influence. Many of the challenges are caused by the production, use and disposal of goods consumed by increasingly affluent consumers. A fundamental restructuring is required in the way production and consumption is organised, in order to mitigate the damages caused. Current economic processes are geared around a linear flow of materials through the economy. Mineral resources, biological resources and fossil fuels are extracted from the environment from which the manufacturing sector makes products. At the end of a product's life the waste materials are simply discarded. Many products, such as disposable cutlery and cigarette lighters, are supplied to the market as throwaway, short-term uses of materials which disregard the scarce resources that have been fed into the manufacture process.

[3] Population Reference Bureau http://www.prb.org.
[4] J Bradford DeLong (1998) "Estimating World GDP, One Million B.C. – Present". http://holtz.org/Library/Social%20Science/Economics/Estimating%20World%20GDP%20by%20DeLong/Estimating%20World%20GDP.htm.
[5] United Nation Environment Programme & Centre for Scientific IRO (2011), Resource Efficiency: Economics and Outlook for Asia and the Pacific, CSIRO Publishing, Canberra.
[6] http://www.bgs.ac.uk/anthropocene/LandscapeImpact.html.
[7] http://www.eoearth.org/view/article/153031/.

New analytic approaches such as life-cycle analysis reveal the profligate way we manufacture so many goods. Only a generation ago, goods such as watches, jewellery and some clothing items were handed from one generation to the next. Now many goods are bought and discarded from one season to the next. The making of a pair of jeans can consume 8,000 litres of water[8], as much water as an average person drinks over 11 years. The production of the gold in a pair of wedding rings requires the mining of between 4 and 100 tonnes of ore bearing rock[9].

Manufacturing does not have to be as wasteful as it is now, but equally importantly nor should consumption be as narrow in range or limited in quantity as it was in the past. What is needed is a new sort of economy in which products are designed to require less resource use during production and use, and be easier to maintain and repair. At the end of life the goods should be easy to disassemble so the materials can be redeployed in the economy. In Europe regulation like the End-of-Life Vehicles Directive oblige manufacturers to take responsibility for the disposal of a car. Manufacturers are incentivised to design products so that components and materials are easily recovered. Such smart regulations can save money and the environment.

Many consumers wish to play their part in making the world more fair; recycling waste or conserving energy as far as they can; improving the quality of air and animal welfare; and ensuring biological resources are sustainably harvested. Consumers are increasingly looking into whether their purchases contribute to these problems or help to alleviate them. However, to nurture a SC behaviour by consumers, they need to be educated by Government and equipped, with clear and reliable information from the firms they buy from. Not only on issues such as whether firms follow good sustainable practices in producing and marketing their products, but including issues that are more remote to consumers such as the social conditions of workers, the treatment of animals, and the sourcing of biological resources through the supply chain. Unfortunately, the voice of the consumer has often been muted in these debates. Few individual consumers with concerns for sustainability have the time or the technical knowledge to give voice to their desire for their purchases to make a difference. Moreover, for many unenlightened consumers the sustainability of the goods they buy is less important than the price, aesthetics or functionality. The Consumer Council (the "Council") sees it as an important duty to speak on behalf of all consumers to ensure that businesses and Government pay adequate regard to the SCP agenda in raising awareness and taking appropriate action.

[8] UNEP (2015) "Sustainable Consumption and Production – A Global Handbook for Policy Makers".
[9] Valdivia, S. and Ugaya, M.L.C. ,2012, "Life cycle inventories of gold artisanal and small-scale mining activities – towards indicators for South America", Journal of Industrial Ecology, Vol. 15, Issue 6, pp. 922–36.

1.2 Sustainable Consumption and Hong Kong

In 2014, Hong Kong was one of the ten wealthiest economies in the world[10]. The size of the economy has grown by 170% in the past 30 years – an average real rate of growth of 3.4%. The equivalent figures for USA and Japan, the two largest economies 30 years ago, were 2.6% and 1.4%, respectively. Hong Kong people's lives have been transformed within a generation.

But this rate of economic growth has had its environmental consequences. Consumption by Hong Kong people gives rise to environmental impacts both at home and afar in the countries from which they import goods, foods and raw materials. For example, Hong Kong is the world's seventh largest per capita consumer of fish[11]. Cities like Hong Kong depend on imported food. Excessive consumption results in approximately 3,648 tonnes of food waste produced in Hong Kong every day. The amount of food waste disposal from Commerce and Industry sectors has been increasing from 400 tonnes in 2002 to 1,003 tonnes in 2013[12]. Farms producing foods to meet the demand of cities like Hong Kong depend on chemical fertilisers and pesticides which wash into rivers damaging riverine ecosystems[13].

Effort also needs to be made to manage waste better. Hong Kong has traditionally relied heavily on landfill sites to dispose of its waste. Data published by the Environment Bureau[14] suggests a far higher proportion of Hong Kong waste goes into landfill (52% landfill / 48% recycling) than in comparably developed economies in Asia, e.g., Singapore (1% landfill, 48% recycling), Taiwan (2%, 52%) and South Korea (19% and 61%). There are also numerous impacts that go unreported in global datasets. The Government has recently reported on air quality in Hong Kong[15] and found that the quality is similar to some other high income countries in Asia such as Seoul and Taipei, but not as good as Singapore or major cities in Europe, North America and Australia.

No one country can address the social and environmental issues arising from inappropriate levels or types of economic activity by itself. As can be seen in Table 1 in the end of this chapter the world's centre of gravity for greenhouse gas emissions, and to a lesser extent economically, has shifted from Organisation for Economic Co-operation and Development (OECD) countries to Asia and specifically to East Asia. Already the region emits more carbon dioxide than all the OECD countries put together. In aggregate East Asian economic output (US$17.7 trillion) is similar in size to that of the European Union (US$18 trillion).

---

[10] World Bank. http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?order=wbapi_data_value_2014+wbapi_data_value+wbapi_data_value-last&sort=desc.
[11] Council for Sustainable Development Public Engagement on Promotion of Sustainable Use of Biological Resources.
[12] www.epd.gov.hk.
[13] Stockholm Resilience Centre carried out a Delphi survey asking expert scientists about which ecosystems are currently at risk of collapse. http://www.stockholmresilience.org/21/about.html.
[14] Environment Bureau (May 2013) HK Blueprint for Sustainable Use of Resources 2013-2022.
[15] Environment Bureau (March 2013) "A Clean Air Plan for Hong Kong" http://www.enb.gov.hk/en/files/New_Air_Plan_en.pdf.

It is neither credible nor appropriate anymore for sustainability to be considered just a market or region specific problem. While actions by a region the size of Hong Kong will not make a significant impact on the global environment, it is still important that Hong Kong plays its part. Though Hong Kong has less than one percent of the population of China, and China has less than one fifth of the population of the world, local actions could provide inspiration and example for others to act. Hong Kong is in an unusual position of being a city of the East but with per capita economic output and life expectancies similar to those of OECD countries. It is also an important regional financial hub, where many international or regional companies that are listed or head-quartered.

1.3 International Activities on Sustainable Consumption

In recognition of the need to work across national boundaries and respecting the fact that countries differ in their stage of development and hence the contribution they can make, many of the world's environmental challenges are being taken forward through internationally negotiated processes.

Sustainable development was famously described by the "Brundtland" Commission[16] as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Since Brundtland the international community has sought to implement the Commission's goals. In 1992 the UN held its Conference on Environment and Development (the "Rio Conference") in which it was agreed that SCP would be the overarching theme to link environment and development.

In the years since the early 1990s the United Nations Environment Programme (UNEP) and Consumers' International – an international organisation of which the Council is a member – have been responsible for facilitating a network of activities and regional SCP activities to encourage best practice.

Last year saw the publication of the UN 2030 Agenda for Sustainable Development[17]. This sets out the global community's agreed views on 17 goals for SD with accompanying targets. Goal 12 is to ensure SCP patterns. Goal 12 sets targets asking consumers, companies and governments to take action to reduce food waste and emissions of wastes, and recycle more – see the end of this chapter for the targets of Goal 12. There are also targets for companies to provide more environmental information and governments to promote sustainable procurement practices, and reduce market distortions that encourage fossil fuel use.

[16] Report of the World Commission on Environment and Development: Our Common Future (1987).
[17] UN (2015)" Transforming our world: the 2030 Agenda for Sustainable Development". https://sustainabledevelopment.un.org/post2015/transformingourworld.

Definitions of SCP

"The use of services and related products, which respond to basic needs and bring a better quality of life while minimising the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardise the needs of future generations".

Oslo Roundtable on SCP, 1994

"SCP is a holistic approach to minimizing the negative environmental impacts from consumption and production systems while promoting quality of life for all"

UNEP, 2011

Key Principles of SCP

1. Improving the quality of life without increasing environmental degradation and without compromising the resources needs of future generations.
2. Decoupling economic growth from environmental degradation by:
   - Reducing material/energy intensity of current economic activities and reducing emissions and waste from extraction, production , consumption and disposal.
   - Promoting a shift of consumption patterns towards groups of goods and services with lower energy and material intensity without compromising quality of life.
3. Applying life-cycle thinking which considers the impact from all life-cycle stages of the production and consumption process.
4. Guarding against the re-bound effect, where efficiency gains are cancelled out by resulting increases in consumption.

UNEP, 2011

So what do policymakers mean when they use the term SCP? Two common definitions and the key principles are shown above. The thinking behind both statements is that resource use and pollution arise both from the decisions made by businesses (e.g. choice of fuel to use in an industrial process, how to formulate a cleaning product), decisions made by households (e.g., which foods to buy, where to go on holiday, whether or not to recycle waste) and policies set by the Government. Solving environment and development issues needs an integrated framework with both demand-side and production-side actors playing their parts.

Sustainable consumption is not achieved by stopping consumption or consuming much less. It is about consuming more wisely and bearing in mind the interests of those that have not yet been born and who deserve the same breadth of products and consumption opportunities that we enjoy. SC challenges our current practices of using non-renewable resources like fossil fuels and rare earth metal, as well as renewable resources such as forest and marine products as though they could be consumed and mined forever. It also challenges current practices of polluting far away rivers and seas through badly regulated or unregulated industrial and household discharges. In many OECD countries the quality of air and water has improved markedly over the past few decades in part because they have shifted their production to Asia, but also because collaborative, stringent and effectively policed regulations, that have often been agreed amongst different jurisdictions have remedied some of the worst local problems.

Consumers can only make the best decisions that are in the ultimate interests of future generations if they are provided with better quality information and facilities to support their action. For example, clear disclosure of information about the products they buy and the kind that they can trust, as well as being provided with public infrastructure like recycling facilities or less polluting public transport options.

1.4 A Partnership Approach

In previous decades consumer groups have played an instrumental role in demanding that policymakers guarantee the safety of electrical appliances and road vehicles through careful research and testing, introducing regulations, and calling out bad practices. Achieving SC will similarly require consumers to come forward and add their voice to that of other stakeholder groups. SC is simply too large for Government, business or consumers to solve by acting alone. They have to act in concert. The Council recognises that the necessary transformation will only be achieved through joint efforts with others.

Government has the key role to play. Decisions about what topics to include and test in Hong Kong schools' syllabi and examinations help shape young people's concept and knowledge on the world. As seen later in this publication there are marked and regrettable differences in the priorities of the young and old, of males and females, and of those with more or less education. The Government's regulatory regime for the energy performance of buildings, and appliance labelling affects the energy efficiency of homes and electrical equipment. Moreover, investment decisions about whether to build sewage treatment works, public transport and recycling facilities shape households' decisions and action on waste disposal and transport.

Businesses that design, produce, distribute and retail goods determine the choice of products available to Hong Kong consumers. Businesses decide whether and what information about the product's environmental performance will be revealed to consumers. Some products might be independently certified by a trusted third party to ensure the products meet demanding standards. Some enterprises view sustainability as an important matter for their firm's reputation with consumers and investors, and therefore publish informative and honest accounts of their performance on social responsibility issues. There are indeed some examples of good practice, but as revealed later in this report there is still scope for significant improvement. Consumers would like to see best practice become common practice.

Figure 1: Partnership between Government, Business and Consumers in Promoting Sustainability

Figure 1 illustrates how consumers have an important part to play, alongside business and Government, in making Hong Kong people's consumption sustainable. Each of the three sectors of our economy has its own role and their actions can reinforce one another.

It is important to stress that SC and continued economic development are not in opposition to each other. It is not the agenda of consumer protection bodies to curtail economic growth to further the interests of SC. Ensuring the continued provision of high-quality, safe, affordable and varied goods and services to consumers will always remain a central objective for consumer protection bodies.

But it would be a mistake to think the SC agenda is simply business-as-usual with only slight modifications. If we want to tread more lightly on the Earth, we must learn to be rational consumers, to understand the undesirable side effects of our purchases, and to better articulate to the marketplace our desires to consume more sustainably.

This means ultimately people need to recognise that the choices they make as consumers matter as well. Individual people select what product to buy, whether to repair a broken item or throw it away, borrow a seldom-used good from friends and neighbours or buy a new one which is hardly ever to be used. Consumers choose whether to recycle their consumption waste or simply to throw it away. Many households in Hong Kong invest in firms that trade on the Hong Kong Stock Exchange (the Exchange), some of these households might wish to consider the triple-bottom-line of the stock they select.

SC is a global priority that requires global collaboration. The Council is fully aware that all parties, at the local or international level, have to play their part to achieve progress. The economic and resource flows implicit in world trade are now extraordinarily complex, which the supply chains that provide the goods and services used by consumers sometimes cause unsustainable practices elsewhere in the world. To make sense out of these interconnections the consumer and environmental movements are developing a cooperative approach, for example: the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement between Governments. All movements made from endangered species have to be authorised through a licensing system. It has the support of many consumer bodies.

Consumer groups in the consuming country, and consumer groups in the exporting industry also have a shared interest in ensuring firms do not use trade to hide unsustainable business practices. An example is the aftermath of forest fires in Sumatra in autumn 2015 which gave rise to massive increases in regional greenhouse gas emissions. Indonesia plantation owners believed there to be short-term profits to be made from producing agricultural and forest products from burning the cleared lands. However, reactive action taken by Singapore consumers made several wood importers cancel their contracts that sourced wood products from the firms that contributed to the haze[18].

A second reason why SC demands regional co-operation is that goods are no longer made for a national market but for regional or even global markets. An air-conditioning unit retailed in Hong Kong is quite probably the same model as the one sold in neighbouring areas like Shenzhen, Macau or Singapore. There is a synergy both for the business and the consumer in having common or at least mutually recognised standards of performance. Vehicles sold in Hong Kong adhere to Euro V emissions standards, a standard promulgated by the European Union,

[18] The Guardian (5 October 2015) Forest Fires in Indonesia choke much of Southeast Asia.
http://www.theguardian.com/environment/2015/oct/05/forest-fires-in-indonesia-choke-much-of-south-east-asia.

which has been highly successful at reducing the problem of emissions from diesel vehicles across a market of half a billion people. This standard is used by regulators outside Europe because it is well understood by car manufacturers and at the same time offers the choice of good green products to consumers.

1.5 Structure of this Report

In *chapter two* of this report the Council releases the results of the first behavioural survey of Hong Kong consumers on SC. The results provide valuable insights into local consumers' knowledge and priorities about SC, their current SC practices and also some indication of how consumers might change their SC behaviour if Government and business offer initiatives to facilitate that change. Results suggest that almost 40% are concerned or very concerned about the environment, and already understand their consumption patterns have an important impact on the environment. Even if they are not familiar with the term SC they understand the importance of current environmental challenges like climate change, air and sea-water quality. But they are not always able to exercise these desires to buy sustainable products because there is insufficient information; there is a lack of supply of sustainable products; and some are too expensive or simply difficult to acquire or are unsuited to their needs. Interestingly, three quarters of the consumers interviewed were prepared to pay a reasonable premium for SC.

Consumers are interested not just in the characteristics of the products they buy, but also the characteristics of the enterprises they buy from. Almost two thirds of consumers in our survey said they would prefer to purchase from firms that protect the environment, and would refuse to buy from firms that harm the environment.

In *chapter three* the Council publishes results from its review of environmental reporting by a hundred randomly selected businesses that sell to consumers and which are listed in the Exchange. A brief assessment of the quality of corporate reporting amongst Hong Kong businesses was undertaken. The best of these companies provide useful information on the firm's environmental performance. However most of the scope and content of the companies' reporting was far from meeting disclosure requirements referenced to international standards. It is important for businesses to improve the quality of information and their sustainability performance for the purpose of sustaining the trust and patronage from consumers.

In *chapter four* the Council looks at some activities that consumer protection bodies in other countries have undertaken. Consumer protection bodies can play an important role in educating consumers, and in providing product specific information about the environmental impacts of specific products through performance testing. They help businesses and governments design and implement certification schemes that provide consumers with high quality and reliable information about product's relative performance. Even though different consumer protection bodies in different countries have slightly different roles and different histories and different priorities, their experiences are a useful point of reference for Hong Kong.

The *final section* of the report sets out our proposed areas of work for the next three years. The Council's Vision: "To be the trusted voice in striving for consumer betterment towards safe and sustainable consumption in a fair and just market" already recognises the role the Council could play in making Hong Kong's consumption patterns consistent with environmental constraints. Indeed, one of its main duties is to promote SC. This report is an important step in this journey.

Table 1: Key Demographic, Economic and Environmental data for Asian and World Regions in 2011

	CO_2 emissions (million metric ton)	CO_2 emissions (metric ton / capita)	Fertility rate (births / woman)	GNI per capita, (US$)	Life expectancy at birth (years)	Population ('000s)
Hong Kong SAR, China	40	5.7	1.2	35,690	83	7,072
United States	5,306	17.0	1.9	50,450	79	311,722
China	9,020	6.7	1.7	5,000	75	1,344,130
Japan	1,188	9.3	1.4	45,190	83	127,817
Malaysia	226	7.9	2.0	8,890	75	28,573
Singapore	22	4.3	1.2	48,330	82	5,184
OECD members	12,377	9.9	1.8	37,232	80	1,249,249
European Union	3,574	7.1	1.6	35,622	80	505,545
East Asia & Pacific	13,003	5.9	1.8	7,980	75	2,219,079
South Asia	2,328	1.4	2.6	1,319	66	1,652,450
World	34,649	4.9	2.5	9,784	71	7,007,432

Source: World Bank Millennium Development Goals database. Data extracted on 10 December 2015.

UN 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

Goal 12. Ensure sustainable consumption and production patterns

12.1 Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

12.2 By 2030, achieve the sustainable management and efficient use of natural resources

12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products

12.c Rationalise inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

Chapter 2

Consumers’ Attitude to, and Behaviour towards Sustainable Consumption

Chapter 2 Consumers' Attitude to, and Behaviour towards Sustainable Consumption

Key Points

A set of Sustainable Consumption Indexes was constructed to gauge the "awareness-behaviour-readiness" of Hong Kong consumers on sustainable consumption. The index of awareness (73.54), behaviour (69.23) and readiness (65.23), indicate consumers are fairly concerned and aware about the issues and understand how their consumption has an impact on the environment. However, consumers have to motivate themselves to take further action, especially in their recycling practices that also need better support on critical infrastructure. The relative low score on readiness demonstrated different degree of readiness from different segments in the population.

Consumers' Awareness

Close to 40% of people are concerned about the environment, and consider that their consumption pattern has an impact on the environment. However, a sizeable minority of 22% showed little or no concern. Younger, better educated and higher earning people tended to be the most concerned.

Hong Kong people's intuitive understanding of SC is close to the UN's official definition. They agreed with the idea that SC implied stewardship of the earth. Their top three issues they associate with SC are thinking about future generations, looking after the environment, and society having to consume more efficiently. Interestingly, few people felt they should consume less.

They most strongly embrace SC ideas related to their own daily experiences, such as waste reduction / recycling, energy conservation; and almost as strongly with ideas such as avoid using harmful substance and production method and in protecting endangered species. More remote issues such as animal welfare and fair trade are least embraced.

While people believe in the benefits and effectiveness of recycling and energy conservation, real actions on these issues significantly dropped off. People therefore need to be helped through education, better recycling infrastructure and by ensuring there is a range of suitable sustainable product choices to assist them translate belief into action.

Consumers' Behaviour

Impact of sustainability on consumers' purchases and behaviour varied. There were high levels of reported take-up of SC purchasing / behaviour that saved money and where there was credible information available (energy-efficient appliance) or which were simple to execute (turning lights off). Support was lower where the sustainable choice was more expensive (green labelled products), or where the behaviour change took more effort (using shades and blinds instead of air-conditioning) or even a lifestyle change (flying less).

There is still much room for Hong Kong people to enhance their SC behaviours to become an "always" habit rather than "usually" or "sometimes". Older people, although they are less concerned about the environment, were more likely to support SC behaviour such as recycling goods or to packing uneaten foods as compared with the youth, perhaps because they developed more frugal lifestyles when they were younger.

Consumers' Readiness

The large majority, around 75%, of consumers say they are prepared to pay a price premium for more sustainable products, especially if they provide greater safety, or economy in-use. The higher income group, the more educated, and families with children are more inclined to purchase sustainable products.

However, only half of the respondents said they usually purchased sustainable products. Younger consumers and students claimed they would be prepared to pay more but this did not translate into action. Factors holding them back are lack of suitable information and products, and concern over affordability. Provision of more choices and accurate information by stakeholders (that is easily accessible, credible and available at point sale) and actions by Government to formulate the right regulations and infrastructure are necessary to galvanise this support.

2.1 Objectives of the Study

This chapter publishes summary results from a knowledge and behavioural survey of Hong Kong consumers on SC led by the Council.

The objectives of the Study were to develop a baseline picture of Hong Kong consumers' awareness of and priorities for different aspects of sustainability. The SC survey covered the following:

- Consumers' awareness, understanding and relative concern for different sustainability issues;
- Consumers' current attitudes and behaviour in relation to sustainability; and
- Consumers' readiness towards SC (e.g. the extent to which consumers are ready to purchase more sustainable products or services).

There is merit in conducting the same study in future years. Information on how attitudes and behaviours change over time could be a useful means of tracking the state of mind and behaviour of Hong Kong consumers on SC and also the effectiveness of actions to promote SC.

2.2 Methodology of the Consumer Survey

The Council commissioned a research company to support the study. The first part was a telephone survey (questionnaire in Annex 1) of a thousand Cantonese-speaking Hong Kong people aged between 15 and 64, with results from the sample weighted in line with the population of Hong Kong. The interviews took place between 14 August and 13 September 2015. In designing the survey reference was made to several similar studies undertaken in Australia, UK and the Mainland.

Most of the questions asked people to express their agreement to statements on a 1 to 5 scale. Analysis of the responses allowed the Council to judge the relative priorities consumers gave to different statements.

The analysis shown below excludes non-responses to a question. The sum of the percentages for questions might not be equal to 100, due to rounding issues.

The second part of the study consisted of three focus groups to gain an in-depth qualitative understanding of consumers' views about SC:

- Group 1: full-time students aged 15 to 24;
- Group 2: employed people aged 25 to 44; and
- Group 3: non-workers (home-makers, retired and unemployed) aged 15 to 64.

The survey also developed a set of Sustainable Consumption Indexes that integrated answers from several questions into a set of figures that could be compared over time and hopefully between markets if the same survey is pursued.

2.3 Consumers' Awareness

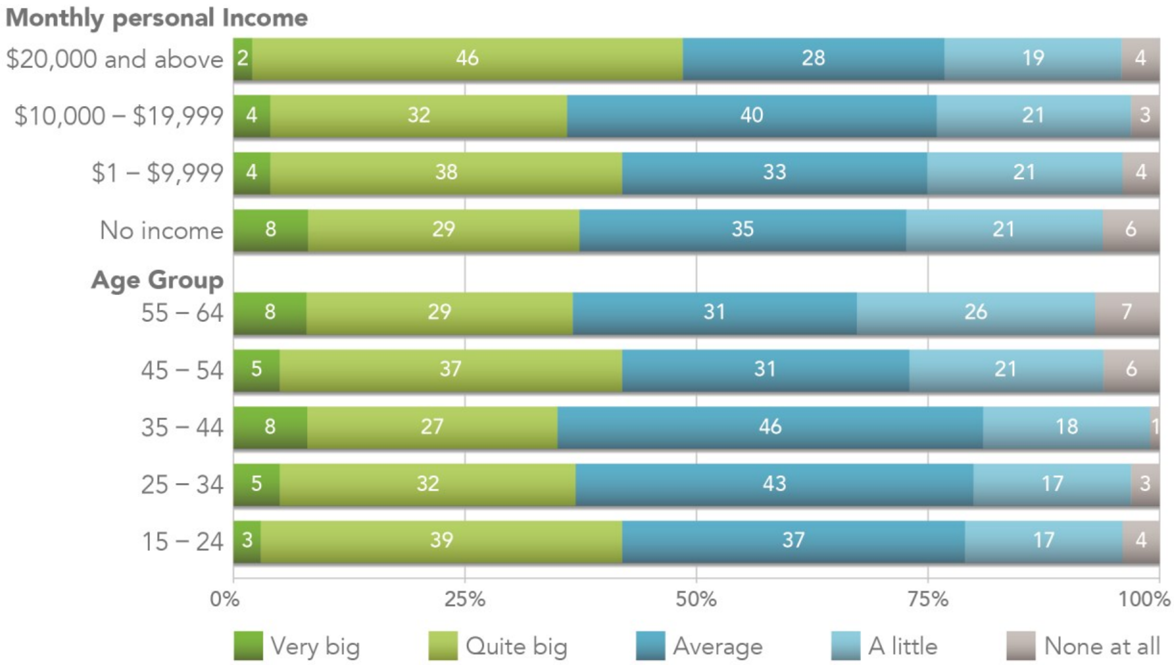
Two questions were asked to assess consumers' attitude towards environmental protection[19]: firstly, respondents rated their general level of concern about the environment, and secondly and more specifically the impact of *their* consumption patterns on the environment.

Close to 40% of consumers are either *very concerned* (5%) or *concerned* (33%) about the environment. But more than one fifth of the respondents stated that they were *only a little concerned* (18%) or *not concerned at all* (4%). The balance of 39% was neutral. *Younger, better educated and higher earning people tended to be more concerned.*

Broadly similar proportions of respondents considered their consumption pattern had an impact upon the environment. Under 40% of consumers thought their consumption had a *very big* (6%) or *quite big* (33%) impact upon the environment and almost a quarter thought their consumption had *little* (20%) or *no impact* (4%) on the environment. 38% were neutral[20].

Figure 2 considers consumers' views on their impact upon the environment by their age and income. It shows 48% of people earning $20,000 or more a month thought their consumption had a *very big* (2%) or *quite big* (46%) impact on the environment, however 23% of high earners also thought their consumption had *little* (19%) or *no impact* (4%). Relatively, the younger age group (15–24) and medium age group (45–54) are more concerned about the impacts of their consumption on the environment with over 40% saying they had a *quite* or *very big impact*. Older age consumers did not believe their consumption had an impact.

Figure 2: The Impact of your consumption on the environment by personal income and age



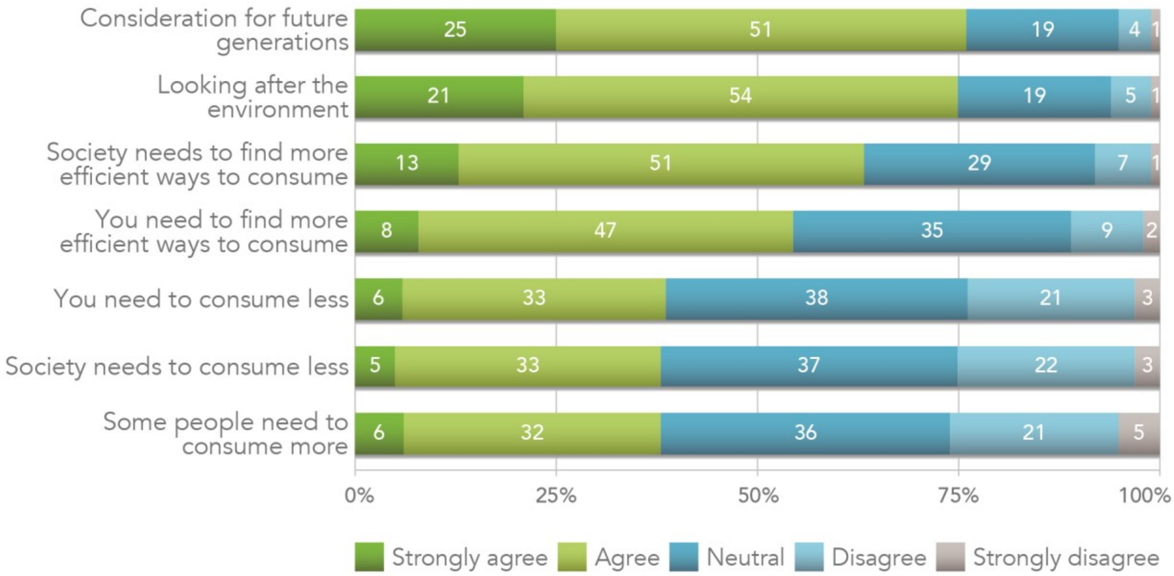
Remarks: The sum of the percentages may not equal to 100 due to rounding

[19] The question items are adopted with the reference from "The Sustainable Consumption: Young Australians as Agents of Change, The National Youth Affairs Research Scheme (NYARS), November 2004, p.112 (Q1 & Q4)".

[20] The sum of the percentages may not equal to 100 due to rounding.

Figure 3 shows results on how people interpret SC. The good news is Hong Kong consumers broadly agreed with the idea that SC implied stewardship of the Earth either *thinking about future generations* (76%), *looking after the environment* (75%) or *society consuming more efficiently* (64%). This maps closely onto the official definitions of SC described in the introductory chapter. There was also support, albeit less strongly felt, for the idea that they personally should consume more efficiently (55% *agree* or *strongly agree*).

Figure 3: What does "Sustainable Consumption" mean to you?



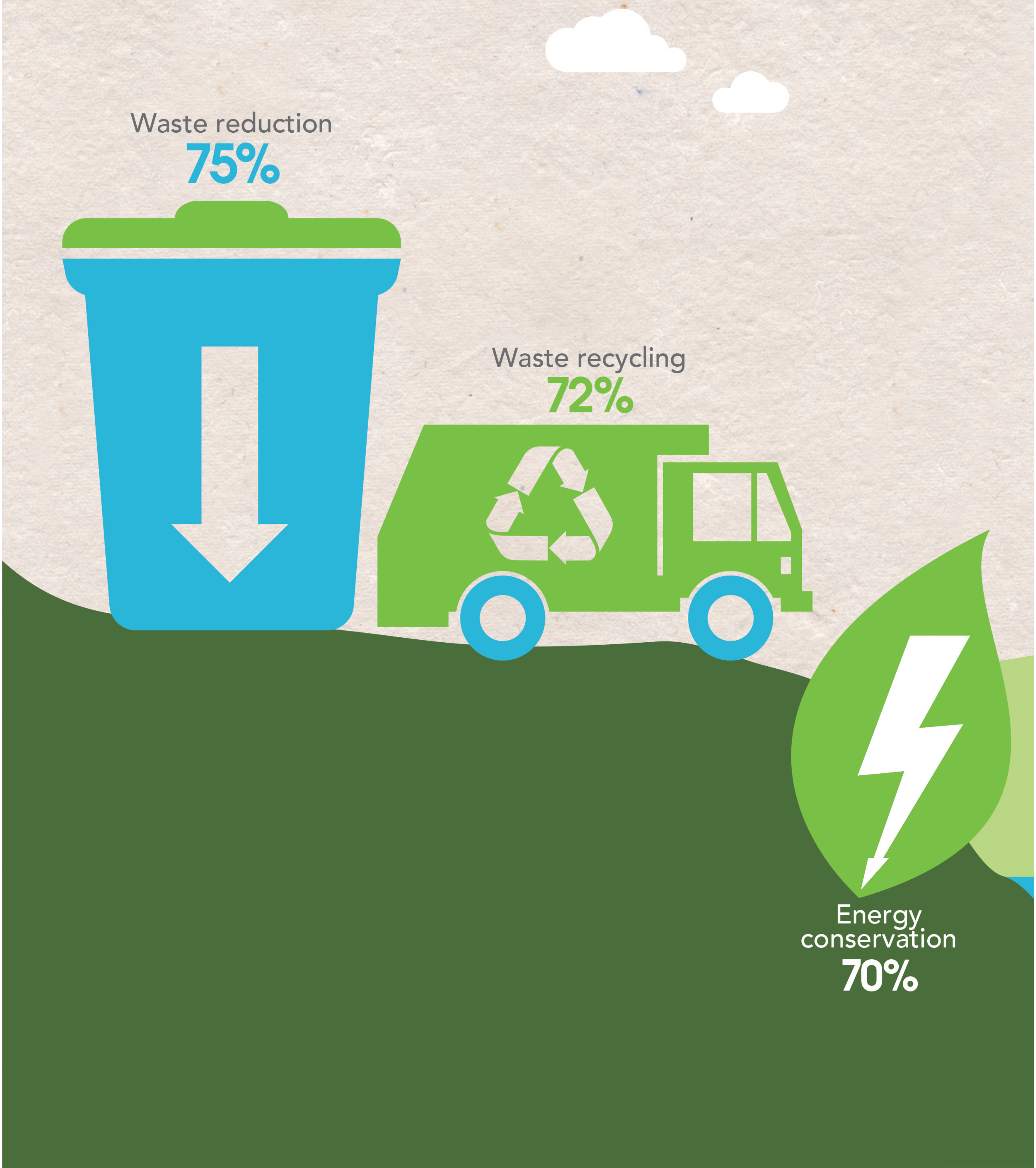
Remarks: The sum of the percentages may not equal to 100 due to rounding

The concept of *consuming less* rather than *consuming more efficiently* still commanded some support. Respondents were not persuaded that SC means either *they* (39% for, 24% against) or *society as a whole* (38% for, 25% against) should consume less. This suggests consumers would prefer that environmental issues be addressed by more efficient consumption, rather than less consumption.

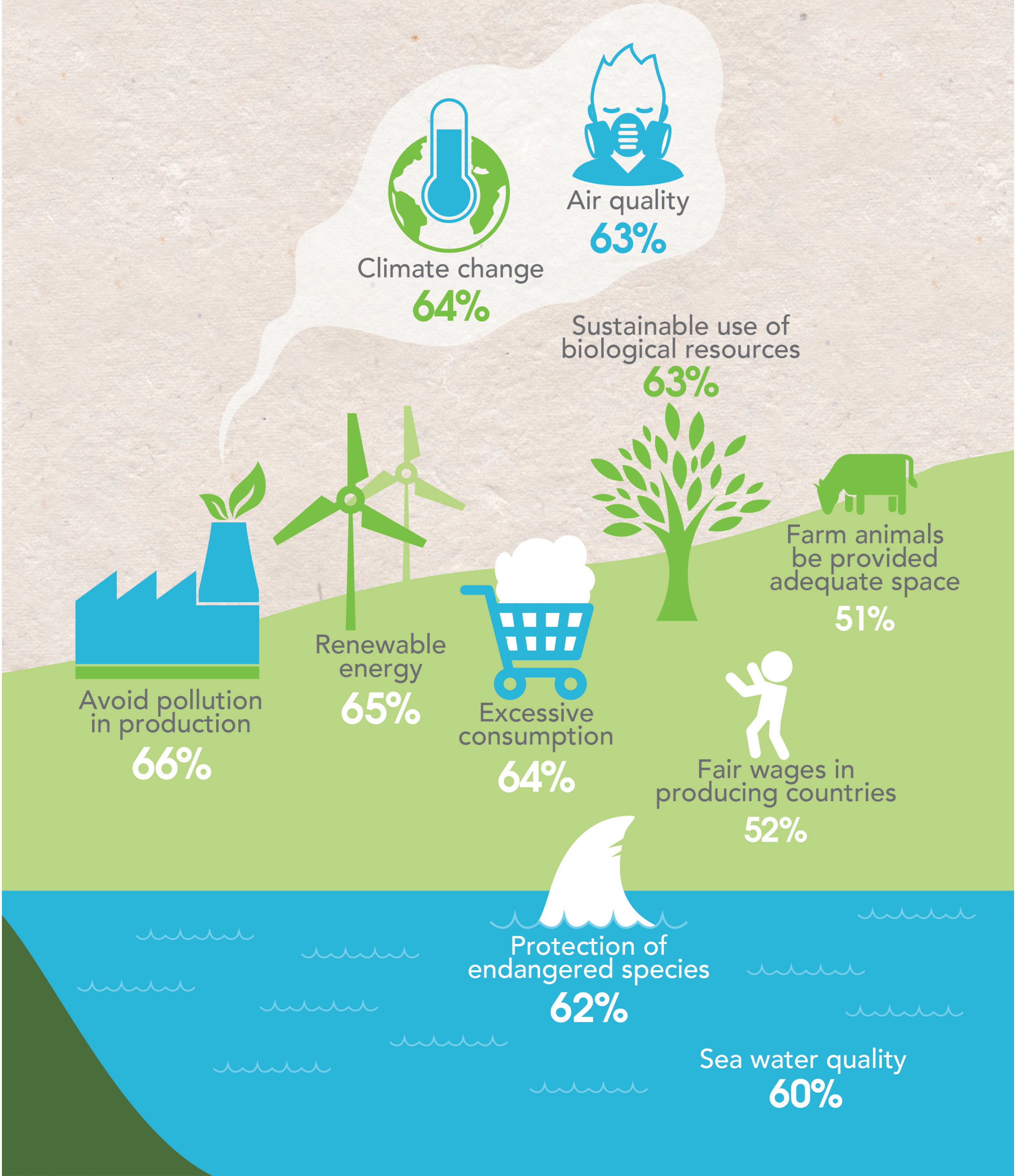
One 25 to 44 year old participant of the focus group discussion commented: "*「其實我有了小孩後，最關注的將來的環境會是如何...因為我在十年前或二十年前所看到的香港跟現在已經有很大的不同，我不希望我的小朋友會是這樣，我覺得這是我能夠教育小朋友以及在我的能力範圍幫到他的」 – Now that I have children, I am more concerned about the future because the environment is worse now than ten or twenty years ago. I don't want my children to live in such an environment. I will educate my children and this is what I can do for them.*"

Consumers were asked about whether SC was associated with various environmental, animal welfare or social fairness themes. Their responses are shown in Figure 4.

Figure 4:
Do you think that "Sustainable Consumption" is



related to the following issues?



Consumers associated SC strongly to those environmental issues that they had concern for and had been educated about like *waste reduction* (75%), *waste recycling* (72%) and *energy conservation* (70%). Other environmental impacts like *avoiding pollutions in production* (66%), *climate change* (64%) and *air quality* (63%), arising indirectly from their consumption, via manufacturing and electricity generation, were slightly less strongly associated with SC.

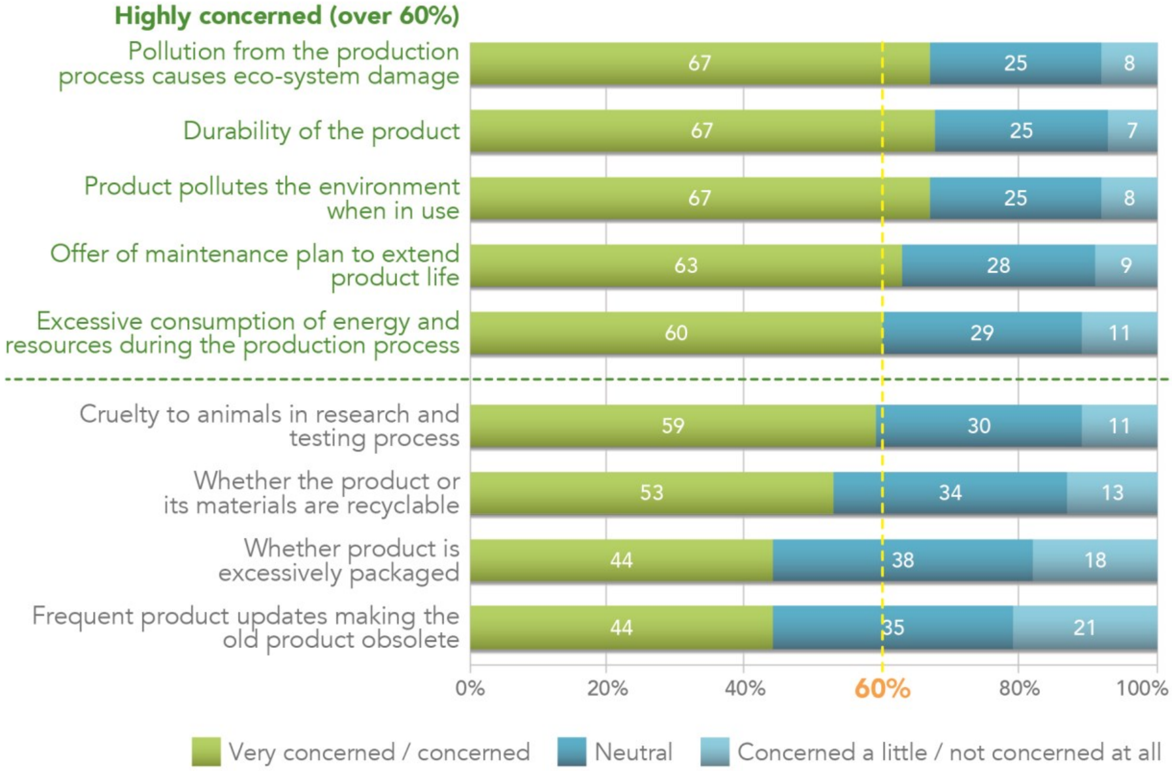
Non-environmental themes like *fair trade* (52%) and *space for farm animals* (51%) were associated with SC by fewer than 60% of respondents. Around a sixth of people said there was *an insignificant* relationship between these non-environmental issues and SC.

Generally people tend to link SC to environmental themes that they have more control over, through their own actions like waste and recycling rather than ones like seawater quality which is not under their direct control and which they do not see as their responsibility.

The results indicate a high share of Hong Kong consumers apply a definition of SC that embraces environmental themes. Topics like species protection and ethical issues like fair trade and animal welfare are not at present so strongly associated with SC. These are also important SC issues and merit greater attention by the public.

Respondents were asked about whether they are concerned about product level information on different SC themes. Figure 5 shows the results from this question.

Figure 5: How much are you concerned about product information on the following?

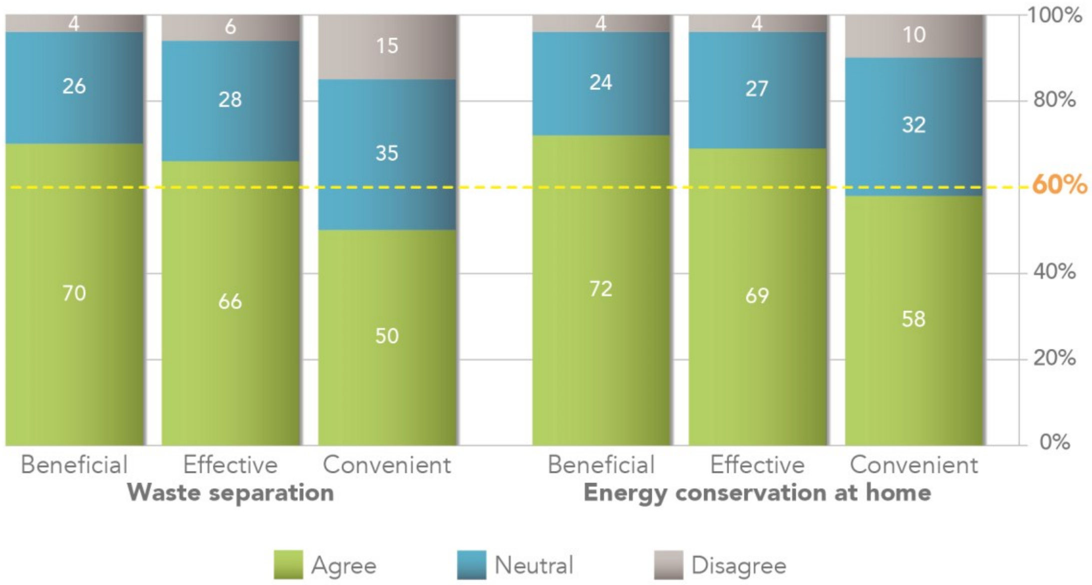


Remarks: The sum of the percentages may not equal to 100 due to rounding

Around two-thirds of consumers said they are concerned about information related to *environmental damage caused in production* (67%), *product durability* (67%), and *pollution during usage* (67%). A significant proportion of people also care about *reparability* (63%) and *resource consumption in production* (60%). Consumers appear keen to know more about their hidden attributes, like pollution during production and durability and less interested in information about excessive packaging and frequency of updates where can observed by themselves.

These characteristics are hidden attributes of the product, and are not apparent by simply looking at its appearance. Issues about how much pollution is caused during a product's manufacture and use and for how long it will last, directly map onto issues of pollution and resource implications that consumers are aware of.

Figure 6: Attitudes towards energy conservation & waste separation



Respondents (Figure 6) were asked the extent to which they thought *energy conservation at home* and *waste separation* were "beneficial", "effective" at protecting the environment and "convenient" to act upon – any differences between the scores exposed a gap between belief, confidence and ease of taking action.

Results were typically higher for energy conservation than waste separation. The vast majority understood the theoretical benefit in action: *energy conservation* (72%), *waste separation* (70%). A significant proportion of people also view action taken "effectively" to address the issue: *energy conservation* (69%), *waste separation* (66%). But there was a big drop in agreement when asked whether the action was "convenient". *Energy conservation* dropped to (58%) and *waste separation* to (50%). This suggests there is a substantial gap in driving people to act despite their belief in the effectiveness of acting. To counter this gap, policies need to be made more conducive towards directing consumers to behave sustainably. Improving convenience of action and providing consumer education in behaviour change should also be considered.

Interestingly a significantly higher proportion of older people (consumers aged 45–64) said they found *energy efficiency* (65%) and *waste separation* (55%) convenient compared to younger people (consumers aged 15–29). The former saying they found energy efficiency (51%) and waste separation (46%) convenient. It would be interesting to understand if this reflects differences factors such as free time or attitudes between older and younger people.

Later results will show the extent to which consumers overcome this perceived lack of convenience, and successfully engage in recycling. One 15–24 year old in the discussion group commented on the inconvenience of waste separation being an obstacle: *"「如可以用一個垃圾筒分類垃圾的話，就能節省時間」 – To save my time, I need to be able to throw away all my waste without separation".*

This reluctance to overcome inconvenience was found elsewhere in the discussion group when one unemployed commented that effective sustainability had to strike a balance with other matters like comfort: "*「現在 30 多度溫度，不開空調睡覺的話會不夠舒適。」 – At around 30°C , I cannot sleep comfortably without turning on the air-conditioner"*.

2.4 Consumers' Behaviour

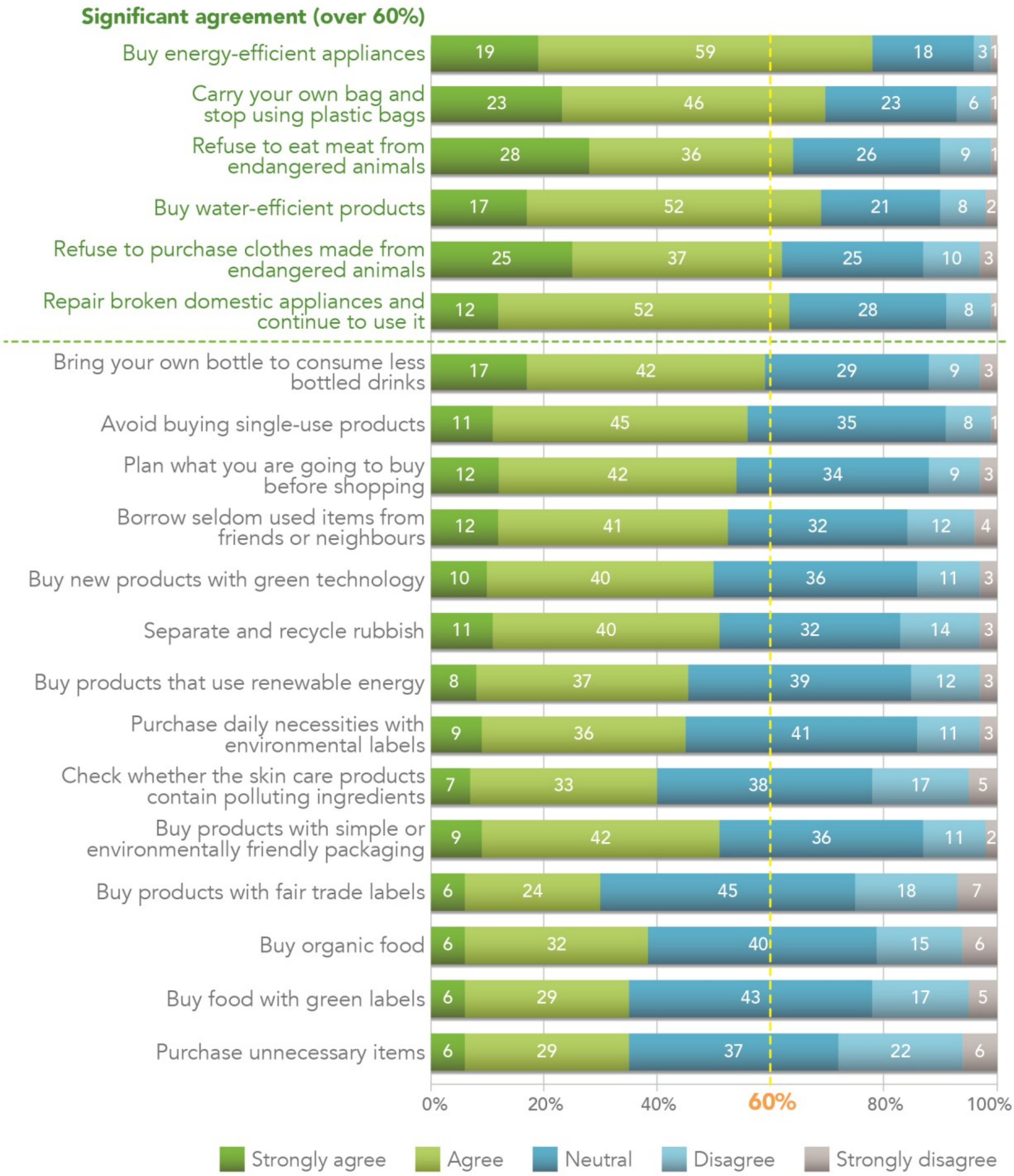
In this section respondents were asked what actions they personally took. Figure 7 shows results about whether they agreed or disagreed with different environmental / ethical purchase behaviours. Results vary from strong agreement (5 point) for the statement to strong disagreement (1 point). The rows are ranked according to the average score across the population. The yellow line shows the 60th percentile of the population.

In only six of the purchasing behaviours did more than 60% of respondents *strongly agree* or *agree* to the proposition: *buy energy-efficient appliances* (78%), *bringing own bag* (69%)[21], *buy water-efficient product* (69%), *refusing to eat* (64%) or *purchase clothes produced by endangered species* (62%) and *continue to use the domestic appliances after repairing* (64%). Most of these six actions can be undertaken at no extra cost (products made from non-endangered species are often cheaper), or have easy to understand information at the point of sale (energy and water efficient appliances). In other words, these actions require consumers to make little sacrifice by way of time or money, and they can act promptly and achieve tangible benefits.

Interestingly a high share of people that *refuse to eat* (28% out of 64%) or *purchase clothes from* (25% out of 62%) endangered animals *strongly* agree rather than just *agree* suggesting a high share of consumers are passionate about this issue, although many may not necessarily associate the issue with SC.

[21] *Carry your own bag* is interesting because it has been the subject of a significant Government education campaign and an environmental levy.

Figure 7: To what extent do you agree with the following statements about your purchasing behaviour?

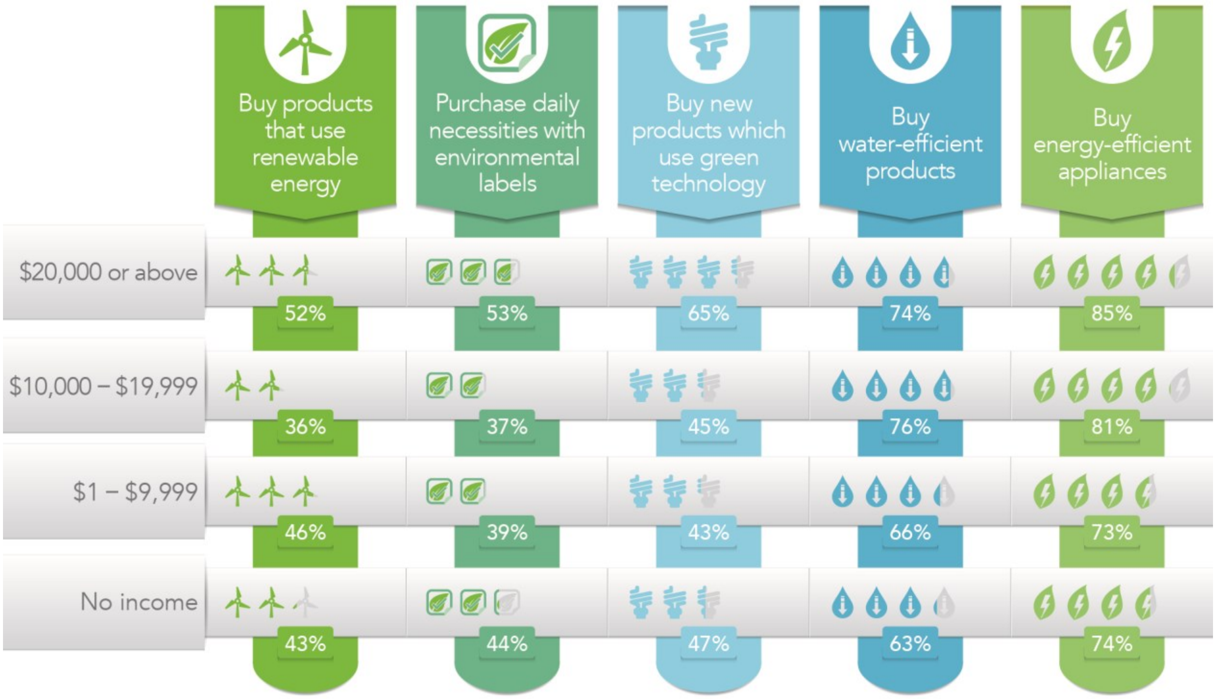


Remarks: The sum of the percentages may not equal to 100 due to rounding

Furthermore, even though the respondents found waste separation beneficial and effective at protecting the environment, they were honest enough to admit they did not necessarily separate and recycle their waste.

Figure 8 shows a strong correlation between purchasing behaviour and personal earnings. Respondents with relatively higher personal monthly income (monthly earnings of $20,000 or above) were most likely to purchase energy-efficient appliances, water-efficient products, new products with newly invented green technology, products using renewable energy and daily necessities with "Environmental Labelling" among different income groups.

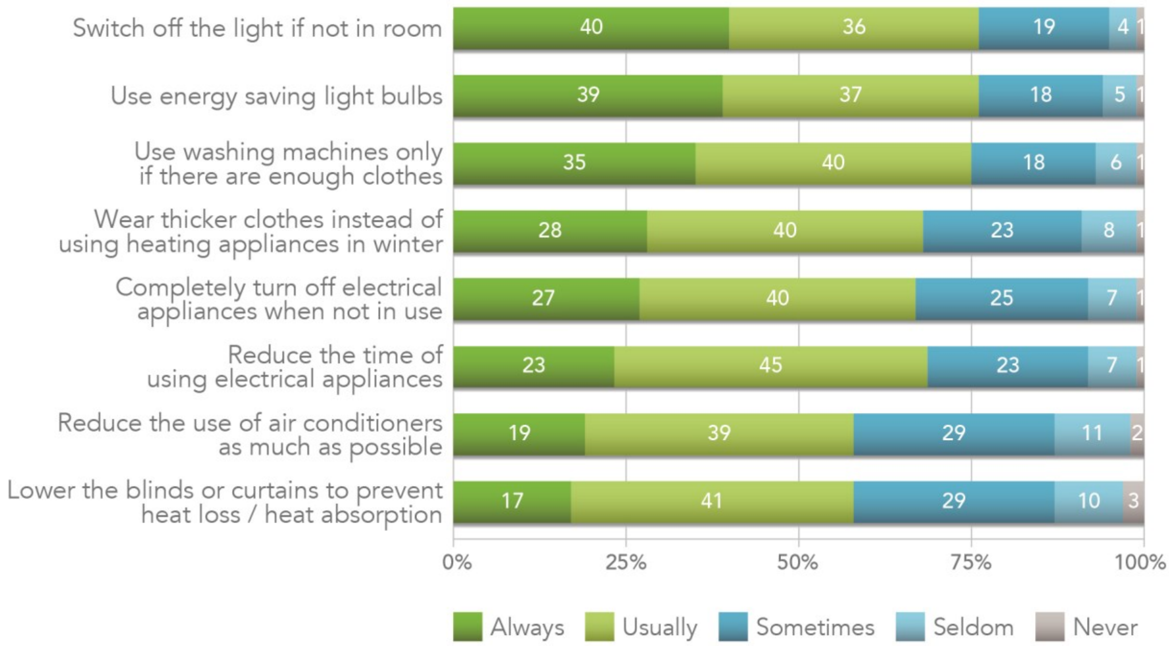
Figure 8: Selected purchasing behaviour – by income groups (monthly personal income)



Respondents in the earnings band $10,000 – $19,999 adopt a more focused approach to green purchasing, with a high-level of money saving sustainable choices (energy-efficient appliances & water-saving products).

Figure 9 shows the results where people were asked which environmental behaviours they already performed. In none of the questions did more than 50% of respondents say they "always" practiced pro-environmental behaviour, "Usually" was for all but two questions the most frequent response. Respondents say they practice very high levels of environmental behaviour that takes only minimal effort such as: *switching off lights* (40% always and 36% usually), *using energy-saving bulbs* (39% always and 37% usually), only *using washing machine when enough clothes* (35% always and 40% usually). Behaviours that give rise to some discomfort or require effort are lower. The findings on *reducing the use of air conditioners* (19% always and 39% usually) and *lowering blinds to regulate temperatures* (17% always and 41% usually) prompts the question whether the driver for these behaviours is the low cost of electricity in Hong Kong or the inadequate self-motivation to act. Obviously the results indicate there is still much room to change their behaviour to better support SC objectives.

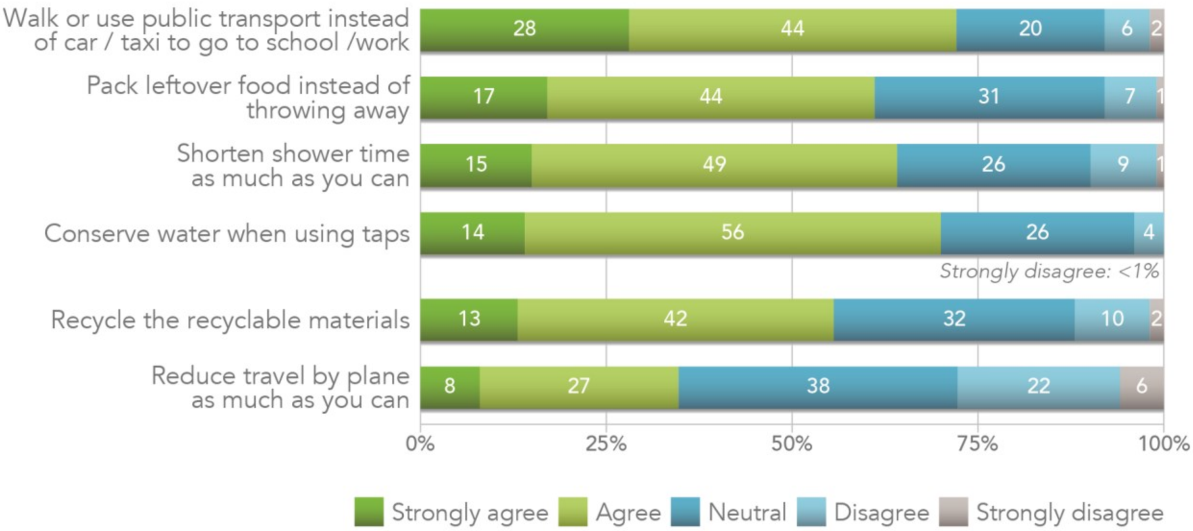
Figure 9: Do you usually practice the following habits?



Remarks: The sum of the percentages may not equal to 100 due to rounding

Figure 10 shows respondents' behaviours towards transportation, water conservation and waste reduction. Respondents said they practised other resource saving behaviours that saved them money or were convenient like *water saving* (70% agree or strongly agree), *packing uneaten food* (61%), *shorter use of shower* (64%). Recycling which takes more effort, and requires access to appropriate and nearby facilities had lower support (55%). Further analysis of respondents' answers by age (not shown in the figure) suggested that older consumers (aged 45 – 64) tended to practice water conservation more than other segments of the population. They were significantly more likely to practice *packing food for eating later* (71%) and *recycling and instead of disposing* (63%). This might be due to the persistence of habits formed when they were younger and needed to be more frugal. The younger generation have not lived through those less affluent decades and have not learnt these practices. It seems the younger generation would therefore need to learn from and adopt these behaviours more vigorously if they wish to build a greener world for themselves and their children.

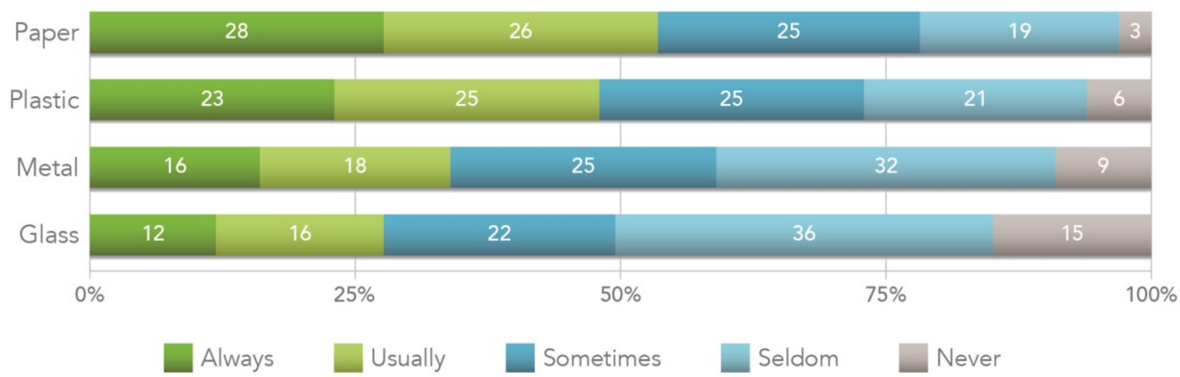
Figure 10: Water, traffic / waste reduction habits



Remarks: The sum of the percentages may not equal to 100 due to rounding

The frequency of consumer's efforts to recycle their waste is shown in Figure 11. Consumers say they most frequently recycle *paper* (28% always and 26% usually) and *plastic* (23% always and 25% usually). There are more limited locations to recycle glass and metals other than aluminium cans in Hong Kong so rates are correspondingly lower. In the *Hong Kong Blueprint for the Sustainable Use of Resources 2013 – 22*[22] the Government has outlined its plans to reduce the amount of municipal waste going to landfill. Key planks of the policy are the introduction of Municipal Solid Waste charging and Producer Responsibility Schemes (on glass beverage bottles and waste electronics) and investment in new waste handling infrastructure (Community Green Stations with places to deposit glass bottles and waste electronic goods).

Figure 11: Do you recycle the following materials?



Remarks: The sum of the percentages may not equal to 100 due to rounding

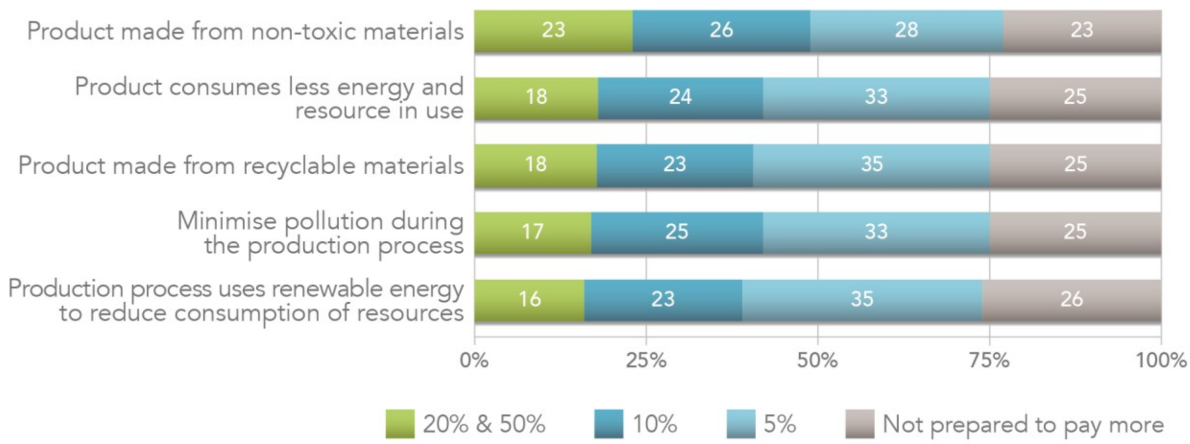
2.5 Consumers' Readiness

In this section of the questionnaire, consumers were asked about their preparedness to adopt more SC practices. Figure 12 shows the results where consumers were asked whether and how much, extra they would be prepared to pay for sustainable products. The positive finding was that around three quarters of people said they are willing to pay more for sustainably produced products. In terms of different sustainability attributes people's preparedness to pay a premium was highest for *human safety* (23% prepared to pay a 20% or 50% price premium, and 26% for a 10% price premium), *energy efficiency* (18% for a 20% or 50% price premium and 24% for 10% price premium) and *products made with recyclable materials* (18% for a 20% or 50% price premium and 23% for a 10% price premium).

[22] The document is available on the Environment Bureau website at http://www.enb.gov.hk/en/files/WastePlan-E.pdf.

People's preparedness to pay a premium for products made with the lowest level of pollution was lower (17% for a 20% or 50% price premium and 25% for a 10% price premium). This contrasts with the results shown in Figure 5 where people said they were more interested in seeing *information about pollution caused during production*, than information about *environmental pollution in use*, or the *recyclability of the materials*. It seems that people want to know about the pollution caused during the production of their purchases, but are less inclined to pay a premium for more environmental friendly production. Perhaps they see this as a fundamental responsibility of the producer and not something they should be asked to pay extra for.

Figure 12: If the SC alternative has the same performance, how much more would you be prepared to pay for the following products?



Remarks: The sum of the percentages may not equal to 100 due to rounding

Figure 13 explores the market for and types of sustainable products and looks at the proportion of people who are not willing to pay extra for sustainable products by income group. The highest earners ($20,000 and above monthly earnings) had the lowest levels of unwillingness (ranging between 14% *products safe to human bodies* and 18% *renewable energy*) and the no income group displayed the most unwillingness with over 25% unwilling to pay a price premium. Among the earning groups, the group earning $10,000 – $19,999 are probably people who are highly budget constrained on daily necessities, and as expected would have a large share of consumers unwilling to pay a price premium.

Figure 13: Respondents who were NOT willing to pay more for sustainable products by monthly income (%)

Willingness to pay premium prices for sustainable products was also analysed by other demographic categories (Shown in Table 2 at the end of this chapter). These showed that a high proportion of retired individuals were unwilling to pay a premium for sustainable products. This might reflect this demographic groups concern about affordability due to their low levels of current and future disposable income.

The groups most prepared to pay the large price premium of 20% or 50% for sustainable products were those aged 15 to 24 (22.3% willing to pay 20% premium or 9% willing to pay 50% premium for *products made from non-toxic materials*), students (22.5% prepared to pay 20% premium and 5.4% a 50% premium for *goods made from recycled materials*), and respondents without children (between 20.4% prepared to pay 20% premium and 7.2% a 50% premium *products made from non-toxic material*). If traders take a prudent approach to designing and marketing sustainable products, business potential exists in targeting the green dollar market especially the young professional market, many of whom have high earnings power.

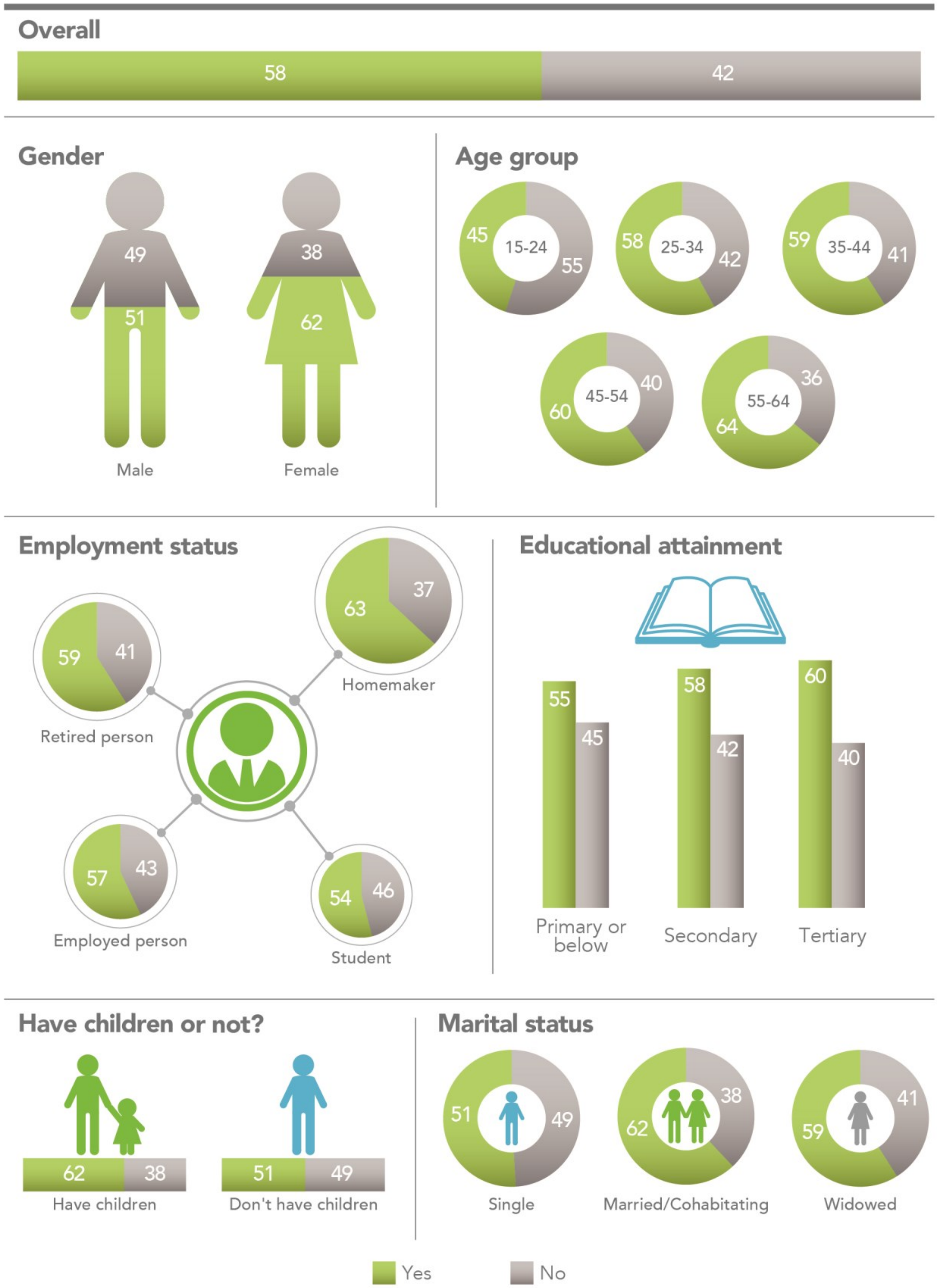
Hong Kong's overall median monthly household income was $22,000 (in 2012 there were 50% of Hong Kong households with a household income larger than $22,000)[23]. Over 80% of 50% of households, whose income was above $22,000, meaning 40% of households are content to pay at least a 5% premium on sustainable products especially those that can demonstrate high levels of safety or that save money in usage by saving energy or other resources.

Respondents were asked if they usually purchased goods and services produced in an environmentally friendly or sustainable way: 58% answered *Yes* and 42% answered *No*. Figure 14 reports the proportions answering *Yes* and *No* by demographic variables. It shows that female and more highly educated respondents were significantly more likely to answer *Yes*. Of these, people aged 35 or above were significantly more likely than people aged 15 – 24. Only young people between the ages of 15 and 24 gave a net negative response, implying they were more inclined to not buy sustainable products than to buy. This is in contrast to the answers this group gave to the earlier question about whether they were prepared to pay a price premium of 10%, 20% or 50% for *goods produced with a low level of pollution*. This seems to indicate this group are prepared to pay a premium for the products, but that this does not translate into regular choice, due perhaps to affordability or earnings power which is yet to develop. Further research would need to be undertaken to monitor this apparent inconsistency.

Interestingly, people who had children (62%) were statistically more likely to answer *yes* than people who did not have children (51%).

[23] Source: Census and Statistics Department.

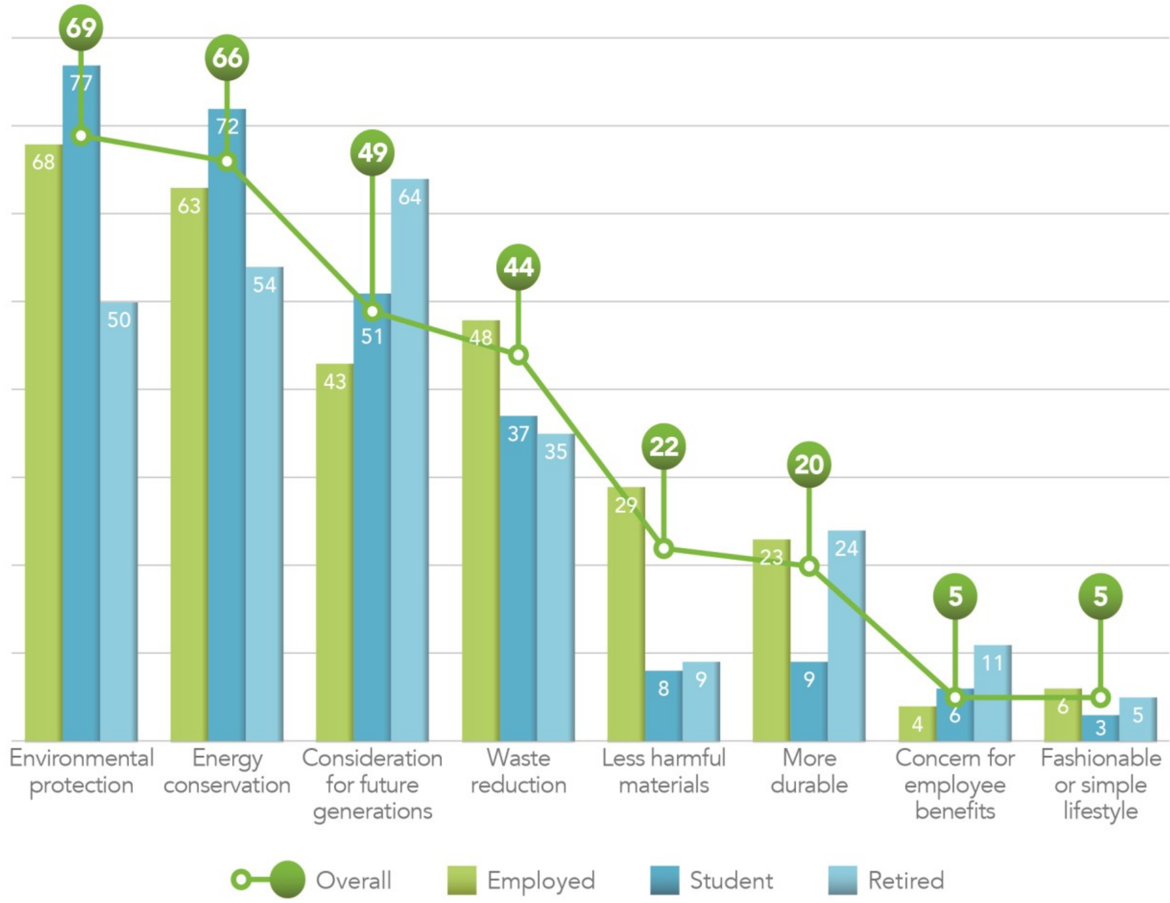
Figure 14: Whether the respondents usually purchase products or services that are produced in an environmentally friendly or sustainable way (%)



Respondents who answered *Yes* and *No* to usually purchasing sustainable products were then separately asked to select three reasons for their choice, out of different options as shown in Figures 15 and 16. The eight options are ordered in terms of frequency for the entire population. The three lines shows how frequently different reasons were given, segmented by economic status. The most frequent reason for buying SC products is *Environmental protection* (69%), and *Energy conservation* (66%). *Lifestyle* and *Concern for labour benefits* were only selected by around 5% of people as one of their three most important reasons. Students are most motivated by protecting the environment and saving energy, employed people were also motivated by waste reduction. Retired people gave *consideration for the next generation* as their most important driver.

A very small proportion of people choose to usually purchase sustainable products because of a desire for simplicity or as a lifestyle choice. The motivations of the vast majority green purchasers are much more pragmatic: the purchase must deliver a tangible benefit. This has important connotations for marketing and education. An appeal to *go green* has to be complimented with more objective benefits in order to realise sales.

Figure 15: Reasons given by respondents who usually make environmental or sustainable purchases (%)



Of the people that do not usually make environmental or sustainable purchases, *Lack of information* (56%), *Too expensive* (44%), *Not easy to acquire* (43%) are the most oft-cited reasons. These suggest that these people are not opposed or uninterested in sustainable products but that there are obstacles in their way. Such obstacles could be overcome by appropriate facilitation by the Government and businesses. More worrying is a proportion of people who cite a lack of intent or demand as their reason for not buying: *Do not think it necessary* (24%), *Does not suit my needs* (36%) or *Never think about it* (42%). Furthermore 8% of people said their reason not purchasing was because they found the topic *too boring*. This suggests a few people are disengaged from the issue and effort by the wider community is needed to influence them.

One 15 – 24 year aged participant in the discussion group commented: "*「(燒烤後)很明顯知道大家玩完後很疲倦，都不想帶走一些東西(餐具)，大家都不會以環保為首要考慮因素(選用即棄餐具)」 – After barbecueing, we are obviously too tired to bring things (utensils) tablewares home. In this case, environmental protection will not be our first priority (and bring disposable tablewares instead)*".

Figure 16: Reasons given by respondents who do not usually make environmental or sustainable purchases (%)

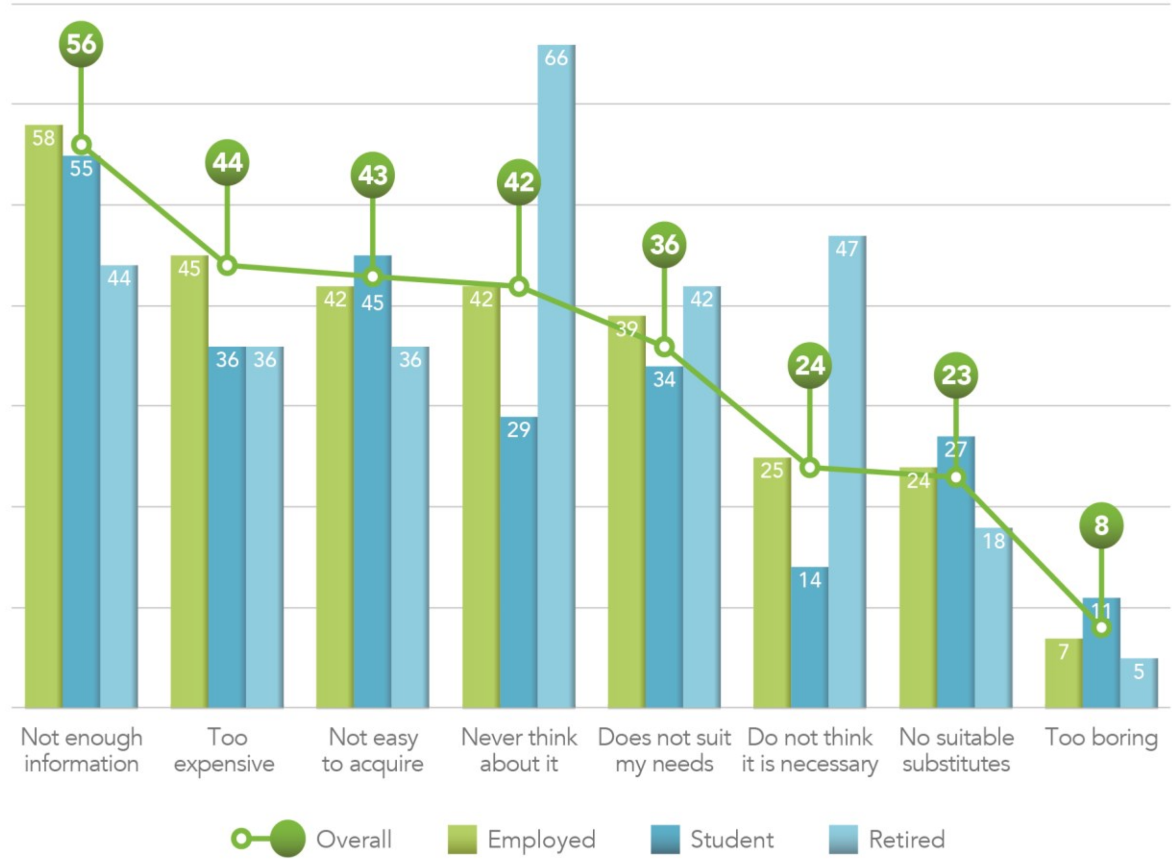


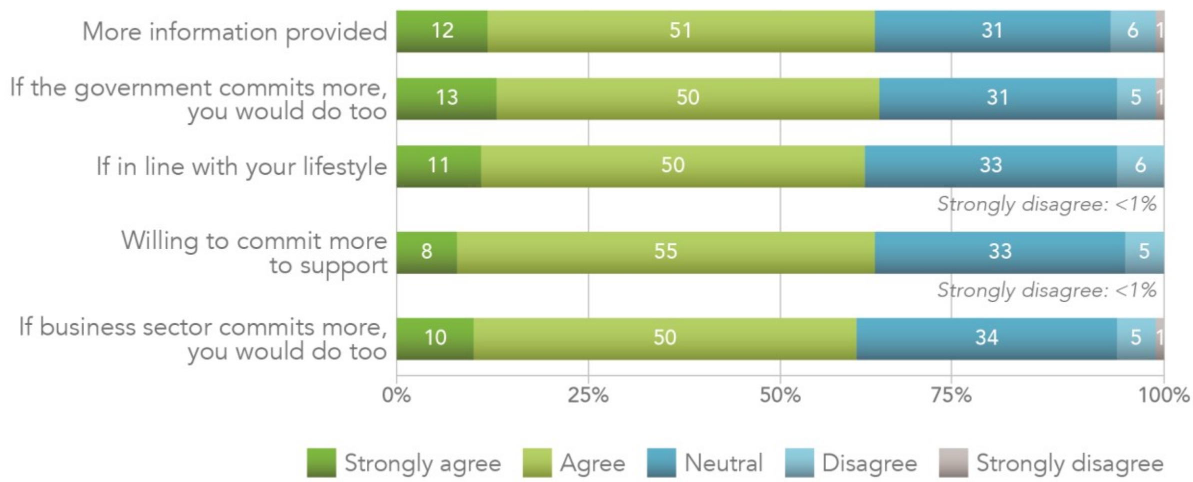
Figure 17 shows responses from people when were asked about what other factors might influence them into committing to more SC behaviour. There was little difference between the different questions with most people either neutral (between 31% and 34%) or agreeing (between 60% and 63%) to the different propositions. Interestingly while 55% of people said they *agreed* they were *willing to commit more to support* (the highest proportion of simple agreement, this enthusiasm for acting alone was lukewarm with only 8% saying they *strongly agreed* (the lowest proportion), reflecting a more prudent or wait-and-see attitude before making stronger commitments.

Responses to the question have been sorted from the most influential factor (*more information* & *Government commits more* average score of 3.67) to the least influential (*business commits more*, 3.62). Respondents seemed to be the least responsive to taking action from *business committing more*, possibly believing a firm's actions are driven by commercial interests. Having said this, businesses are often best placed to supply more information about product sustainability – which was the most important motivator for action. The business sector therefore needs to work hard to show the public its commitment to the agenda, for instance through the disclosure of genuinely informative information in its corporate social responsibility reports. Another interpretation of these results is that in order to motivate people's support to develop from a position of simply *agreement* to *strong agreement,* and provision of *more information* i.e. consumer education and *Government committing more* are all necessary to galvanise action.

One 15 – 24 participant in the discussion group expanded on this point: "*「如果要去做的話，就需要大家一起去做。只得 1，2 個人去做的話，是沒有什麼大作用的」 – If we have to do it (sustainable consumption), we have to do it together. It's not effective if only one to two of us do so."*

In Figure 17, one can also observe that consumers support SC more firmly if the Government and business does more. It should be noted that 61% of people agreed or strongly agreed to provide their support if any changes were in line with their lifestyles. People appear to be prepared to change, but probably in a progressive way to evolve from their existing style of living.

Figure 17: Under what circumstances you are willing to do more to support sustainable consumption

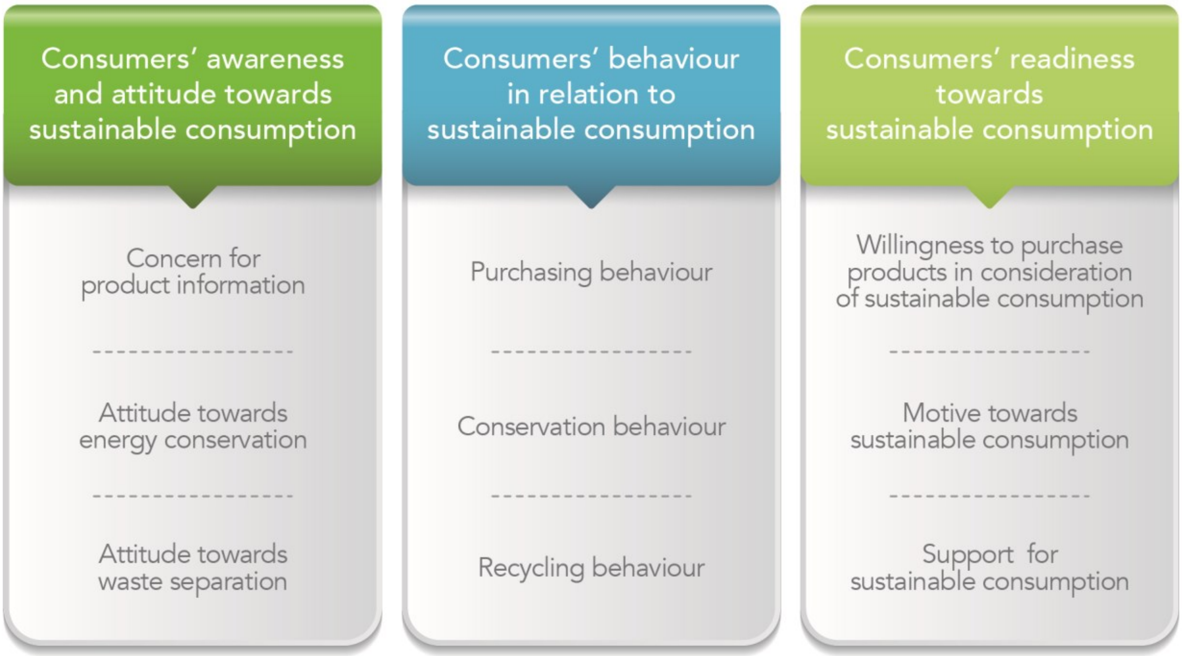


Remarks: The sum of the percentages may not equal to 100 due to rounding

2.6 Sustainable Consumption Index (SCI)

The Council has constructed a set of summary statistics, the SCI, to combine responses to the survey into a set of figures that can be tracked over time. In the survey the numbers of questions on different sustainability themes varied. The Council has constructed a set of three indexes or indicators from nine constituent parts adopted from the framework of the questionnaire, which was "awareness-behaviour-readiness", shown in Figure 18. Each of these nine components was created from taking the average scores across the population for each question and rescaling these scores from a 1 to 5 range to a 1 to 100 range, averaging for different questions that feed into one of the nine constituent parts.

Figure 18: Structure of the Sustainable Consumption Index (SCI)



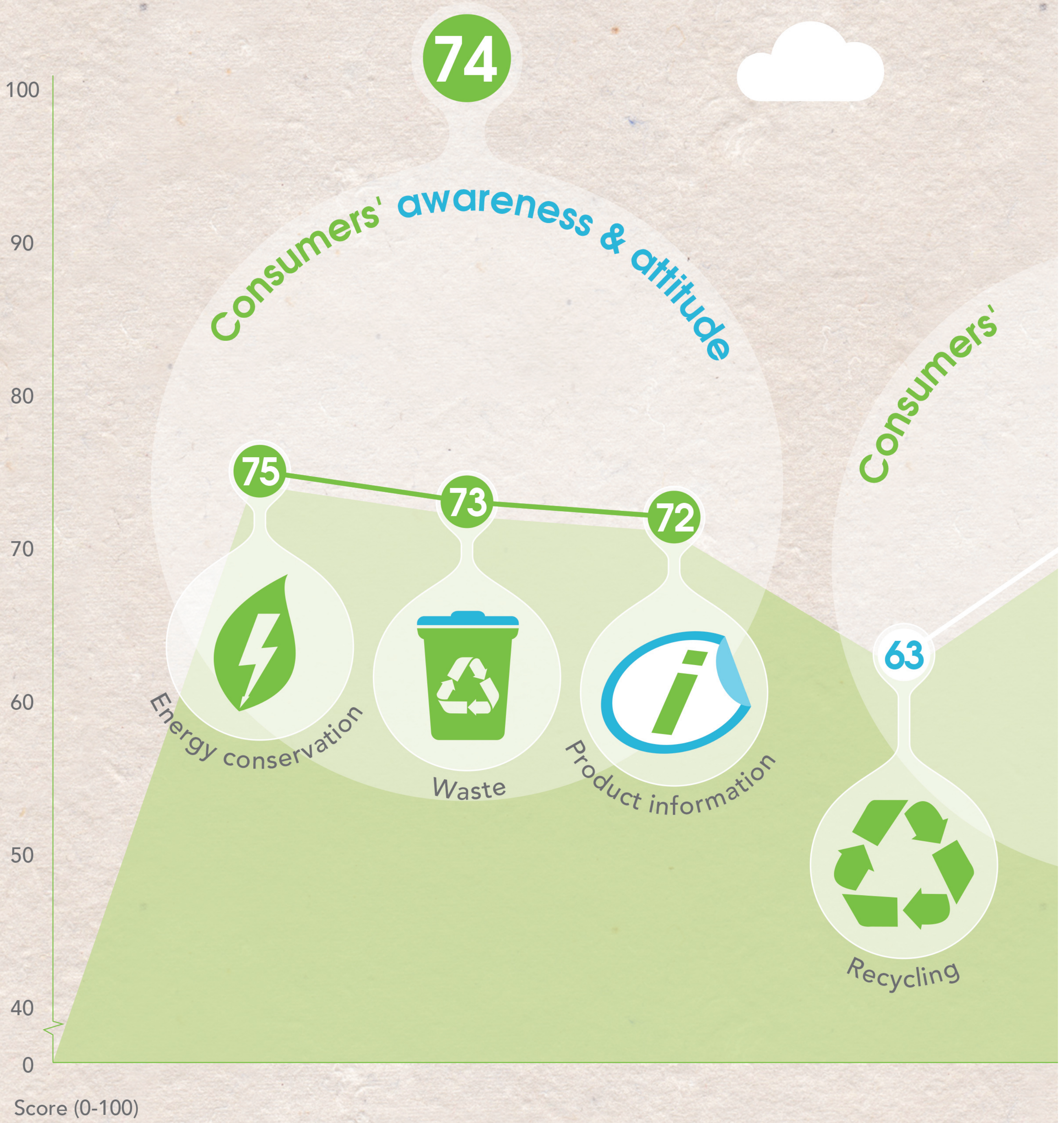
Regarding the first index: "Consumers' awareness and attitude towards sustainable consumption", the high score recorded for concern about product information means that the average respondent understands the concept of SC well and is willing to do more to support SC. Scores on attitudes to energy conservation and waste separation are correlated with respondents' positive views about the effectiveness, benefit and convenience for the environment respectively. However, as described before, consumers need to motivate themselves to take action, in particular on waste separation. These three constituents represent different ways to interpret the degree of awareness of and attitudes towards SC. One can use them individually or average them to give an overall picture.

Regarding the second index: "Consumers' behaviour in relation to sustainable consumption". This was constructed from fourteen SC behavioural questions based on purchases of products such as energy conservation products, green labelled food, products made from endangered species, goods labelled fair trade and others. The score for purchasing behaviour can be viewed as the consumers' intention when they go shopping, based on their understanding of the concept of SC and their willingness to support. Respondent's purchasing of energy efficient products and their recycling practices were used to calculate the scores for conservation and recycling behaviour. Relatively low scores for recycling behaviour could reflect difficulties consumers face in recycling arising either from limitations in space at home preventing them separately storing materials for recycling at home, or from the existence of adequate facilities to support recycling in their immediate neighbourhood.

Regarding the third index on "Consumers' readiness towards sustainable consumption", the score of consumers' willingness to purchase products on consideration of SC could be viewed as a measure of the likely support for SC after actions are taken to educate and inform a consumer about SC. A relatively low score (48) for willingness to purchase SC products, compared to the high scores for consumer support towards SC (73) and on consumers' motivation towards SC (74), means there is a gap between action and expectation of consumers. As described earlier, different segments of the population demonstrated a different degree of readiness to purchase sustainable products at different price points. Some segments, in particular the youth market, exhibited high interest in SC products but appeared to be too financially constrained to pay premium prices. This leads to the apparently contradictory position where their attitudes differs from their actual purchases. Having said that, more information and greater maturity in the SC market would reduce price premiums and could allow this segment to better participate in the market.

Figure 19 shows that Hong Kong consumers had fairly good scores for most sub-indexes. However, the findings show that around a quarter of the public are not ready to act on SC in future years. Educational effort is needed to motivate everyone in the community to play their part in delivering the sustainability goals for Hong Kong as well as the world. Unless one has prior understanding of the relevance of different types of SC behaviour, it is not recommended to use a single index to represent the SC behaviour of the average consumer.

Figure 19:
Sustainable Consumption Index (SCI) and



Sub-index Score of Hong Kong

Table 2: Respondents preparedness to pay a price premium for various SC variables by different segments of the population

	Price premium	Overall	Age group					Employment status				Have children or not?		Monthly personal income			
			15-24	25-34	35-44	45-54	55-64	Employed person	Student	Home maker	Retired person	Yes	No	No income	$1-$9,999	$10,000-$19.999	> $20,000
Production process uses renewable energy to reduce consumption of resources	None	25.8	18.5	24.1	30.7	25.5	28.6	24.3	24.1	22.5	35.0	25.7	24.1	28.2	19.1	25.3	17.7
	5% or 10%	58.2	56.1	56.0	58.1	60.4	59.5	61.7	48.9	63.3	56.0	61.4	56.8	52.5	64.2	65.1	65.1
	20% or 50%	16.0	25.4	20.0	11.2	14.0	11.9	14.0	27.0	14.2	9.0	12.8	19.0	19.2	16.7	9.6	17.3
Minimise pollution during the production process	None	24.7	17.1	25.9	27.2	24.8	26.6	23.0	24.0	21.5	31.5	23.7	23.6	27.1	18.5	24.1	16.8
	5% or 10%	58.3	61.1	55.1	58.4	61.0	56.2	61.3	53.3	62.0	54.0	62.4	57.1	53.9	63.2	63.4	66.7
	20% or 50%	17.0	21.8	19.0	14.4	14.3	17.1	15.8	22.7	16.6	14.4	13.9	19.3	19.0	18.3	12.5	16.5
Product made from recyclable materials	None	25.1	19.6	25.7	25.3	24.6	29.2	22.6	25.4	22.9	35.2	24.6	24.0	28.3	19.1	24.6	17.3
	5% or 10%	57.3	55.0	53.9	58.8	59.9	58.0	61.8	46.7	61.5	51.3	61.6	55.1	51.3	62.6	63.1	66.3
	20% or 50%	17.6	25.4	20.5	15.9	15.4	12.8	15.6	27.9	15.6	13.5	13.8	20.9	20.5	18.3	12.2	16.4
Product made from non-toxic materials	None	23.3	16.1	26.2	23.2	23.1	26.2	21.0	24.0	18.6	33.9	22.4	22.8	25.6	18.5	22.9	13.7
	5% or 10%	53.7	52.6	48.3	50.6	57.1	59.7	55.5	47.2	64.1	48.9	60.1	49.7	52.3	51.8	57.0	61.7
	20% or 50%	23.0	31.3	25.5	26.2	19.8	14.1	23.6	28.8	17.4	17.2	17.5	27.6	22.1	29.7	20.1	24.5
Product consumes less energy and resource in use	None	24.7	19.6	26.5	23.9	23.9	28.5	21.5	27.8	21.8	34.2	24.3	23.6	28.8	18.8	22.1	15.8
	5% or 10%	56.9	56.6	50.0	61.6	58.5	57.6	60.7	47.7	61.7	56.0	59.9	56.2	51.8	63.9	61.3	66.1
	20% or 50%	18.4	23.8	23.5	14.5	17.7	13.9	17.8	24.5	16.5	9.8	15.9	20.2	19.4	17.2	16.6	18.0

Remarks: The sum of the percentages may not equal to 100 due to rounding

Chapter 3

Reporting of Environmental Sustainability by Businesses

Chapter 3 Reporting of Environmental Sustainability by Businesses

Key Points

Consumers are also interested in the SCP characteristics and behaviour of the enterprise that they purchase from. Businesses are expected to respond to a much wider public interest in serving the environmental and social aspirations of the community. Transparent reporting on strategies and results are now expected, with a number of international and domestic initiatives like the Global Reporting Initiative (GRI) or the Exchange's reporting guidelines available to standardise environmental reporting.

The Council undertook a review of the SCP initiatives of 100 enterprises listed on the Exchange, with specific focus on the status and quality of their disclosure on SC related information, in particular to environmental sustainability. Of the sample, 41 provided some sort of environmental statements either in their annual report or in a standalone report but some only gave a broad statement on what they would do or had done.

Five out of the 41 companies only made general remarks without making any specific reference to the policies or results. Only a handful of these reports contained quantitative measurements like targets and results for public assessment.

In response to the Exchange's recent consultation, the Council supported the Exchange's proposal of bringing in the "comply or explain" approach in its environmental, social and governance (ESG) Guide and it is pleased to see that the proposal has been adopted by the Exchange with part of the requirements will be effective for issuers' financial years commencing on or after 1 January 2016. The Council opined that data on environmental reporting be held on an easy-to-access platform so that stakeholders can review enterprise level data in a transparent manner. A longer-term objective is that ESG reports should be seen as a useful strategic tool by business in order for the public to understand businesses' environmental impacts.

3.1 Corporate Environmental Reporting

There have been several initiatives both in Hong Kong and internationally to standardise the information that is reported by businesses about their sustainability performance. The terminology used by business is different to that used by the UN in its discussion about SCP. Businesses often publish information under the rubric of corporate social responsibility (CSR) or environmental reporting in their annual reports. The first takes a wider view of the material under review: it may include information about environmental performance, workplace health and safety issues, worker participation in decision-making and community action (volunteering or fund raising for charities). Environmental Reports tend to focus on environmental issues only.

Companies also sometimes use the term environmental, social and governance (ESG) reporting. ESG is a generic term used in capital markets and used by investors to evaluate corporate behaviour and to determine the future financial performance of companies. The European Federation of Financial Analysts Societies has defined topic areas for the reporting of ESG issues, and developed key performance indicators (KPIs) for use in financial analysis of corporate performance[24]. The Association of British Insurers, in its guidelines to institutional investors, expects that a company's annual report should include information on ESG-related risks and opportunities that may significantly affect the company's short and long term value, and how such risks and opportunities might impact on the future of the business. The annual report should also set out how the board fulfils its responsibilities for ESG policies, procedures and verification[25]. The meaning of "governance" also refers to the degree of predictability, openness and accountability of decision-making of the enterprise, acting in furtherance of the rule of law, transparent processes, and a strong stakeholder engagement in the process.

The Council undertook a short exercise to obtain an overview of the contents of businesses' reporting on information related to environmental sustainability that is taking place in Hong Kong. Details are given in the box below.

3.2 Environmental Goods and Services

Of the sampled companies 18 produced or provided environmentally friendly goods or services, with some directly selling to the public or other companies. The study found that 5 of these (28% of the 18 companies) did not provide any information related to environmental sustainability, other than their production or the provision of the claimed environmental friendly products or services, in their annual reports or through other means. It was good for these companies to provide environmental friendly options to customers. However, it was expected that these companies could be much more transparent, for instance, reporting on the actual policies or measures that they would undertake to reduce their impacts on the environment during operation or in manufacturing processes.

[24] Source: Céline Louche, assistant professor of corporate responsibility, Vlerick Leuven Gent Management School, Belgium.
[25] Source: Mike J. Thompson, professor of management practice, Ceibs.

Methodology of the business environmental sustainability reporting exercise

The study looked into companies listed on the Exchange from two sectors, namely consumer goods and consumer services, according to Hang Seng Industry Classification System (HSICS), which were considered to have a close relationship with consumers.

Amongst 656 companies (i.e. about one third of the total numbers of listed companies in Hong Kong as of July 2015) a sample of one hundred listed companies were chosen. Of the hundred companies, 69 and 31 companies were sampled from the categories of "consumer goods" and "consumer services" respectively.

A stratified random sampling approach was adopted with respect to the size of market capitalisation. The sampled companies were classified into groups of very large cap (larger than $10 billion), large cap (between $10 billion and $5 billion), medium cap ($5 billion and $1 billion) and small cap (less than $1 billion). A representative number of companies of each size were randomly sampled from amongst the 656 companies. Not all firms listing in Hong Kong necessarily have substantial operations in Hong Kong. Of the 100 companies surveyed, only 53 had business activities in Hong Kong.

The following Table 3 shows the number of sampled companies by scale of market capitalisation.

Table 3: Number of sampled companies by industry and scale of market capitalisation

	Selected Industry (based on Hang Seng Industry Classification System, HSICS)	Scale of Market Capitalisation (HK$)				
		Very Large	Large	Medium	Small	Total
Goods	• Agricultural products • Automobiles • Food & beverages • Healthcare • Household goods & electronics • Textiles, clothing & personal care	12	7	26	24	69
Services	• Hotels, casinos, restaurants & leisure facilities • Media & entertainment • Retailers • Support services • Transportation	4	3	14	10	31
	Total	16	10	40	34	100

For each of the hundred companies desk based research was undertaken to examine:

- Whether the enterprise supplied environmental friendly goods or services;
- Whether companies reported sustainability information in annual reports or through other means;
- Means of reporting (stand-alone report, website, chapter within annual report); and
- Scope and information content being reported.

Table 4: Concrete Sustainable Actions of Companies in the Sample

Sector (Number of sampled companies, % of sampled companies taking concrete action within the sector)	Concrete Action: Introducing Environmental Friendly Products or Taking Sustainability Measures in Services	General Remark [1]	Specific Policy [2]	Report Reduction in either Resources Use or Emissions
Consumer Goods				
Agricultural Products (2, 50%)	Production of biofuel	●	●	●
Automobiles (10, 40%)	Fuel efficient and environmentally friendly powertrain system	○	○	○
	Production of innovative and environmentally friendly automotive lighting and automotive electronic power products	○	○	○
	Development of new energy automobiles	○	○	○
	Distribute high-end and high quality mass market vehicles which are advances in reducing emissions and developing clean engine technology	○	●	○
Food and Beverage (10, 10%)	Bottles use high quality polyethylene terephthalate, which is a 100% recyclable material	●	●	○
Household Goods & Electronics (16, 44%)	Energy-saving control business, smart energy innovations, smart home business	●	●	○
	Sales of energy-efficient air-conditioner, with subsidies for each purchased	○	○	○
	Provide green products such as water saving taps and eco-sensor water saving taps	●	●	○
	Air-conditioner business persisted in product development towards the direction of energy-saving	○	●	○
	Provide high quality energy saving products and solutions	○	○	○
	Investment in R&D for developing smart, energy saving, healthy and quality products with multiple functions	●	●	○
	Suppliers of primary and rechargeable batteries	●	○	○
Textiles, Clothing & Personal Care (23, 4%)	Environmental-friendly organic cotton without polluting the environment	○	●	○

Table 4: Concrete Sustainable Actions of Companies in the Sample

Sector (Number of sampled companies, % of sampled companies taking concrete action within the sector)	Concrete Action: Introducing Environmental Friendly Products or Taking Sustainability Measures in Services	General Remark [1]	Specific Policy [2]	Report Reduction in either Resources Use or Emissions
Consumer Services				
Hotels, Casinos, Restaurants & Leisure Facilities (12, 8%)	Purchase more products from organic and / or sustainably managed sources, environmentally superior products	○	●	○
Support Services (2, 50%)	Provision of cleaning and related services for waste management and disposal solutions e.g. sales of recyclable waste such as paper, metal and plastic waste collected during operations	○	●	○
Transportation (3, 67%)	(with line of business involved in property management) Provide waste recycling bins to separate waste for recycling at all common areas of its managed properties, reduce food waste generated by customers in shopping malls and residential developments	●	●	●
	(airline) Catering offers sustainably sourced seafood, switching from plastic to corn starch and cellulose in manufacturing the toothbrushes	●	●	●

Remarks:

●: Yes ○: No

Above rows sum to less than 100 as no sampled company took a concrete sustainable action in some sectors. These sectors were Healthcare (8 companies), Media and entertainment (12) and Retailers (2).

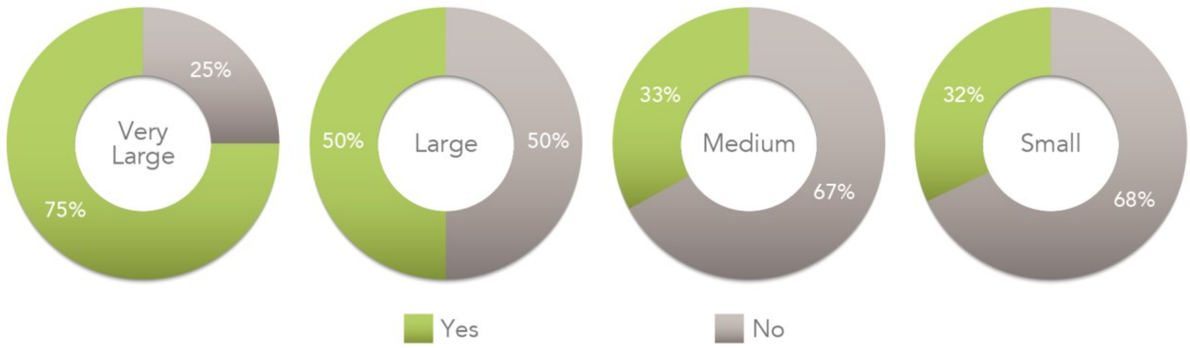
[1] General remark: Companies gave broad statement related to environmental sustainability.

[2] Specific policy: Companies provided specific information regarding their environmental policies or measures or community involvement.

3.3 Environmental Reporting of the Sampled Companies

Of the hundred companies, 41 provided some sort of environmental statements. Of these companies, 24 had business activities in Hong Kong. The propensity of companies to report such information was associated with their size. Three quarters of the very large companies, half of the large, a third of the medium and 32% of the small companies reported such information. Three of the sampled companies (all very large companies) published stand-alone CSR or sustainability reports. 15 companies included a chapter on CSR or ESG (or similarly titled chapters) in their annual reports.

Figure 20: Percentage of Sampled Companies with Environmental Information by Size



The information reported was highly variable, ranging from general remarks to reporting detailed and specific information like data on resource or emissions reductions; from only touching on the environment in a subsection of the annual report, to publication of standalone CSR or sustainability reports. Of the 41 companies the following information was included:

Table 5: Aspects of environmental information reported

Reported Aspects	No. of Companies [a]
Have specific environmental policies / measures	30
Improvement plan / policy on energy or resources consumption, impact on environment of the company's operation	26
Waste management initiatives	13
Production / provision of environmental friendly products / services	12
Community involvement with environmental concerns	7
Data on environmental reduction results	7
Data on energy or resources consumption / greenhouse gas (GHG) emissions	7
Supply chain management in relation to environmental impact	6
Only gave general remarks but not reported on specific environmental policies / measures and not reported on production / provision of environmental friendly products / services	5
Production / provision of environmental friendly products / services but have no specific environmental policies / measures	5
Target on reduction of energy or resources consumption / GHG emissions	3
Use of GRI or the Exchange ESG Guide in reporting	3
Total number of companies	41

[a] Some companies reported information under multiple aspects

Out of the 41 companies identified, 30 reported specific environmental policies or measures. However, they only gave a broad statement on what they would do or had done, including information on policy implemented to minimise the company's impact on the environment and natural resources, and their involvement in community related to environmental protection.

It is worth noting that 5 of the 41 companies only made general remarks without referring to specific environmental policies or measures and did not report on production or provision of environmental friendly products and services at all. For instance, 26 companies reported improvement plans or policies on energy or resources consumption, or impact on the environment of the company's operation, 13 companies reported on their waste management initiatives. Only some companies reported the figures of their consumption of energy or other resources or GHG emissions, or mentioned their targets on reduction of energy consumption or emissions. There were some companies that reported their policy on supply chain management in relation to environmental impact.

Altogether 7 companies reported on supporting community involvement in sustainable development, with some reporting on specific environmental activities they were involved with, and some on the financial resources they contributed to the community. One of them cited provision of recycling facilities for the public on its managed premises as an environmental initiative. None gave a breakdown of financial support for particular events, nor provided any measure on the impact of the company's involvement.

Three of the companies, all in the very large category, followed the GRI guidelines in their CSR reporting. However, the quality of companies' reporting remained variable. In one example of a *more comprehensive* stand-alone sustainability report a company had considered the range of different issues that were relevant to report, provided KPIs on greenhouse gas emissions, energy or resources consumed, reduction in energy or resources, etc. It also provided comparative data stretching back several years.

3.4 Reporting Guidelines and Means of Reporting

There are different reporting formats for CSR and ESG reports. These seek to standardise the sorts of information companies should publish, and develop methodological guidelines for ensuring comparability in results over time and between companies. Methodologies for reporting guidelines are necessarily complex – for instance when reporting greenhouse gas emissions issues such as *should emission arising from generation of purchased electricity be included and what is the appropriate emissions factor* need to be thought through and ideally standardised. Similarly, when comparing pay between employees, issues such as *should the mean or median be the appropriate definition of the "average" pay* is important.

Around the world there has been a trend for governments and stock markets to recommend or require companies to undertake sustainability reporting. The 2013 edition of *Carrots and Sticks – Sustainability reporting policies worldwide – today's best practice, tomorrow's trends*[26] reports that of the 180 national reporting policies and initiatives identified in the 45 reviewed countries and regions, 72% are mandatory and 28% are voluntary. Table 6 below summarises the growth in mandatory sustainability reporting between 2006 and 2013.

[26] Report issued jointly by GRI, KPMG, UNEP and the Centre for Corporate Governance in Africa.

Table 6: Trends in mandatory and voluntary sustainability reporting

Initiatives	2006		2010		2013	
Mandatory	35	58%	94	62%	134	72%
Voluntary	25	42%	57	38%	53	28%
Total	60	100%	151	100%	180	100%
Countries & Regions	19		32		45	

Even countries where reporting is still “voluntary” some ask issuing businesses to either "report" or "explain". There is also a tendency for requirements to mandate larger companies to report but leave it optional for SMEs.

The UN created the Sustainable Stock Exchanges Initiative (SSE Initiative) bringing together stock exchanges, regulators, investors and other key stakeholders to promote improved disclosure on ESG. National Association of Securities Dealers Automated Quotations (NASDAQ) joined the SSE Initiative as a “Partner Exchange” and made a formal commitment to promote sustainable investment and improved ESG disclosure and performance among its listed companies.

The Exchange has been promulgating a standard approach to ESG reporting since 2011[27] which it encourages companies that list on the Exchange to adopt. This builds on pre-existing international standards such as the GRI's or the NGO Carbon Disclosure Project's templates to encourage companies to disclose their environmental impacts with specific disclosure on greenhouse gas emissions, deforestation and water use. Within Hong Kong the Environment Bureau launched the Carbon Footprint Repository[28] and encouraged companies listed in Hong Kong to submit data on their greenhouse gas emissions.

The Exchange issued a consultation document in 2015 asking stakeholders about their views on switching ESG reporting from a purely voluntary basis to a "comply or explain" basis. In December 2015 it reported on the conclusions of its consultation and stated it will require companies listing on the Exchange to "comply or explain", with part of the requirements be effective for the financial year commencing from 1st January 2016.

The Council found in its study that in Hong Kong there was a lack of a single platform which provided information on companies’ reporting of ESG, CSR or sustainability. At present, the public needs to search various sources and publications for companies’ policies or performances on environment or social responsibility. Should an organisation be informed, that creates a single platform that warehouses such information, it will need to have credibility with the public; have adequate resources to maintain the datasets; and provide a high quality front-end to search for information. Furthermore it would be even more beneficial if the host organisation could ensure the reports meet an acceptable standard for inclusion. The Exchange might be well placed to perform such a role, though not

[27] The Exchange issued guidance document and also arranged training workshops which several hundred companies listed https://www.hkex.com.hk/eng/newsconsul/mktconsul/Documents/cp201112.pdf.

[28] Press notice launching the repository in December 2014. http://www.info.gov.hk/gia/general/201412/15/P201412150407.htm.

all of Hong Kong's largest companies are listed on the Exchange. The Council considers that the Exchange rules should require companies to reveal their sustainability risks or explain why they have not, as is the case for companies listed on the Australian Stock Exchange.

3.5 The Future of Environmental, Social and Governance Reporting

ESG reporting is not an end in itself. The information published in the report is intended to assist stakeholders, i.e., consumer groups, investors, academics and also employees and managers within the companies, to use a broad set of metrics to understand how the company is performing on issues that are crucial to society's well-being. Arguably the most important ambition of a good ESG report is for the company to set itself KPIs that internalise the challenges of sustainability and customer service within its own strategic framework.

Business commentators[29] have developed this general line of thought and argued that modern companies should broaden the scope of their duties beyond ensuring the short-term shareholder interest, towards a much broader regard for the interests of workers, suppliers and the environment. The motivation for this would not be altruism but because such an approach makes business sense. These commentators argue that companies which enhance the way they use resources like energy and water can also improve their bottom line. Innovations that produce cleaner or greener products may command a price premium or expand the size of the market. Companies might also benefit from choosing to work closely with their suppliers in a collaborative and supportive fashion to stimulate joint innovation, and longer term relationships that work to mutual advantage rather than simply trying to squeeze costs.

The Council is keen to see an improvement in the quality and usability of corporate sustainability reporting in Hong Kong. To achieve this and in common with many other countries there should be a more stringent requirement by the Exchange to require reporting of environmental information of listed companies, under a common framework. The Council believes in the long run, that reporting on the performance of sustainability KPIs should be done on a mandatory basis to further protect consumers and investors.

The Council also sees the importance of having a single user-friendly platform which comprises the ESG, CSR and sustainability reports of companies, or at least hyperlinks to companies' websites where these reports or information are made easily accessible to stakeholders in order for them to search for up-to-date information. This could be set up by the Exchange or other stakeholders designated to promote ESG.

[29] Porter M. E. & Kramer M. R "Creating Shared Value – How to Reinvent Capitalism and Unleash a Wave of Innovation and Growth" Harvard Business Review Jan-Feb 2011.

Chapter 4

Overseas Consumer Organisations' Initiatives on Sustainable Consumption

Chapter 4 Overseas Consumer Organisations' Initiatives on Sustainable Consumption

Key Points

Consumer organisations in different markets have taken SC into account in their advocacy and education work. Overseas experience indicated that there is no single silver bullet to deliver SC, but rather it is necessary to adopt a customised approach according to local context and resources available.

Integrated sustainability policy and synchronised action plans by policymakers and stakeholders are essential to achieve progress.

Consumer organisations see their role as impartial information provider to enable consumers to make the right sustainable choices. They are broadly in favour of "choice editing", i.e., the removal from the market of products having poor environmental performance – but only if there are suitable and affordable substitutes available.

Energy efficiency, food sustainability and waste management could serve as the focus for the Council's work in coming years.

4.1 Introduction

Sustainable consumption and production (SCP) cuts across the whole economy. If consumers are to make more sustainable choices this requires a holistic approach and a close collaboration between all stakeholders. The consumer movement has been asked by the UN to help steer the global drive towards achieving SC. In 2014, Consumers International, the international federation of consumer protection bodies, joined with UNEP to deliver the Consumer Information Programme[30]. The objective is to improve the availability and quality of consumer information, to enhance comparability of information issued by government and business and to enhance communication in order to drive behavioural change.

In recent years, consumer protection bodies in different markets have also taken SC into account in pursuing their consumer protection advocacy and other daily activities. In order for the Council to realise its vision of fostering SC in Hong Kong, it conducted a desk research exercise to search for experiences in, and successes from activities conducted by consumer protection bodies in 18 different overseas markets.

The Council found that many of the activities pursued in other countries reflected local consumer concerns and priorities, funding opportunities, and factors peculiar to the relevant markets. It was concluded that there is no single silver bullet that will deliver SC; rather consumer bodies will have to customise their approach to the local policy framework, and to channel their resources to high priority areas as identified and agreed upon by the relevant societies.

[30] http://www.unep.org/10yfp/Programmes/ProgrammeConsultationandCurrentStatus/Consumerinformation/tabid/106265/language/en-US/Default.aspx#.UpMhcGRgalo.

In Hong Kong, government bureaux and departments, together with different advisory bodies and NGOs are all actively playing their part to support sustainable development. In fact, sustainable development represents a cross-bureaux and department agenda. For example, the Environment Bureau takes the lead on promoting environmental sustainability; the Education Bureau drives education on sustainability and consumption behaviour; the Food and Health Bureau steers policies on good health and well-being, and the Commerce and Economic Bureau develops policies on sustainable economic growth. Therefore, an integrated sustainability policy and synchronised action plan is essential for Hong Kong to achieve progress on sustainability.

Advisory bodies such as the Advisory Council on the Environment, Council for Sustainable Development, and non-profit making organisations such as green groups in policy advocacy and public education, together with specialised bodies established for certification of green initiatives, have all contributed to sustainable development in Hong Kong and the world generally. A summary list of the relevant major government units and organisations in both the public sector and civil society involved in this regard is appended as Annex 2.

4.2 Activities by Consumer Organisations in Other Countries

At the beginning of 2015, the Council undertook a desk-based review, supplemented with written questionnaires and phone interviews with respondents in English speaking markets[31], from a total of 18 consumer organisations in Europe, Asia, the United States and Australia, many of which are known for undertaking noteworthy work on SC. The numbers in brackets are the number of organisations reviewed for each region. Owing to translation difficulty, projects that only reported in the local language and were hard to translate were excluded. Table 7 shows the spread of SC topics considered by the sampled organisations.

[31] Text from the interviews has been anonymised in this chapter on request from the interviewees.

Table 7: Subject matter of the campaigns from different consumer organisations

Topics	Europe (10)	Asia (6)	USA / Australia (2)
Building energy efficiency	2	1	
Decentralised energy & microgeneration	1		
Appliance energy efficiency and lighting	3	1	1
Transport choices including vehicle energy efficiency	1		
Food: ethical* & environmental aspects	4	3	1
Waste and recycling	3	1	1
Finance & Savings	2		
Voluntary eco-labelling schemes	3	1	1
Green Products	3		1
Product durability	1		
Green lifestyles	2	3	1

* "Food ethical" means projects that were concerned with issues that were not strictly about environmental sustainability like Fairtrade, Animal welfare

4.3 Sustainable Consumption and Consumer Organisations' Strategy

Of the organisations reviewed, quite a number covered the subject of the environment or of sustainability in their Mission, Vision and Strategies statements. However, some major markets such as Australia, UK, USA, Singapore and France did not include SC in their corporate statements. Nevertheless, some indicated their intention was to review this situation given the importance of SC as an important global agenda that affects the long term interests of consumers. Examples for those that have already included SC in their corporate statements were as follows:

- In Denmark – the 2011–2013 strategy states: "The Danish Consumer Council (DCC) promotes sustainable and socially responsible consumption and efficient markets."
- The European consumer organisation BEUC – similarly states: "The concept of sustainability underpins all our campaigns and is also reflected in the day-to-day running of the Secretariat." Sustainability was taken to mean not just protecting the environment but also "reduction of negative social and economic impacts, while improving well-being for all, without compromising the needs of our children's grand-children. This means that vulnerable groups, such as children, the elderly and low income consumers, are taken into account when designing policy."

- In Mainland China the law on consumer rights and protection states: "Consumer associations shall perform the following functions: provide consumers with consumer information and consultation services, increase consumers' ability to protect their own lawful rights and interests, and bring about civilised, healthy consumerism that conserves resources and protects the environment."

All the sampled organisations worked on energy and environmental issues, even if SC was absent from their corporate statements, they provided consumers with extensive information about the environmental impacts of their purchases and practical information on how to reduce these impacts. However, certain touchstone issues that highly affect the current lifestyle of consumers, through campaigns such as advocating for flying less or eating much less meat, which could be seen as harder for consumer organisations to pursue, were as a result less likely to be found.

Consumer organisations, unlike environmental NGOs, did not see their role as telling consumers what they should or should not buy, rather their role was to provide impartial and accurate information about the environmental impacts and allow consumers to make better informed decisions.

The organisations were broadly in favour of "choice editing", i.e., the removal from the market of products having poor environmental performance, but only if there were suitable and affordable substitutes available. The position was different from that taken by environmental organisations which advocated outright bans of goods or services that posed risks to the environment.

Two European groups considered issues like Fairtrade, organic farming, sustainable fishing and animal welfare as legitimate issues for inclusion within SC. One Asian group was possibly the most staunchly environmental running several bottom-up campaigns on localised food production, bicycling and campaigning against nuclear energy. One of the organisations was active in the international process for defining the list of criteria to be used in ISO26000, a new international "guidance" document for businesses seeking accreditation on their social responsibility reporting.

4.4 Key Activities Pursued

Building Energy Efficiency and Appliance Energy Efficiency and Lighting

Scrutinising and promoting energy efficiency of buildings and appliances are popular topics for consumer groups, in part as a response to the numerous government policies aimed at improving energy efficiency and achieving climate change targets. For example, many countries in Europe and States in the USA have implemented Energy Efficiency Obligations on their energy suppliers mandating them to install energy efficiency appliances in customers' homes[32]. Consumer groups have also intervened to ensure that elderly people's safety is ensured from rogue installers or aggressive sales tactics. There has also been policy work to encourage the Government to fund part of the programme through taxation.

Work on improved electricity energy efficiency has also focused on labelling of appliances to ensure that the labels are understood by consumers and the banding of energy efficiency performance is up to date. This is to ensure consumers can use the labels to discriminate between current good and bad performance levels of appliances in the market place.

However, advocacy of these issues in different markets is not always a smooth path. In Europe, the calibration of EU's A – G scale reflected levels of appliance attainment in the mid-1970s but it has not kept up with technological improvements over the last 40 years. Rather than rebasing the A – G scale, appliance manufacturers persuaded the EU Commission to introduce new categories A+, A++ and A+++ to discriminate within the A band. Consumer groups have lobbied unsuccessfully to revise the bands to reflect the ranges of performance by appliances that are currently available for purchase. The French consumer organisation CLCV teamed up with WWF-France to produce a list of top ten products in terms of energy efficiency, and this information is being shared internationally e.g. with Switzerland. Another aspect of the work has been to broaden the range of attributes on labels. For instance, labelling of air conditioners and vacuum cleaners to include noise; and washing machine labels to include water use.

Sustainability of Food

Sustainability of food is also a common topic for consumer advocacy. Here the main driver has not been government policy but the introduction, by the retail sector and food producers, of various voluntary labelling schemes, covering organic, Fairtrade, sustainably caught / grown, non-GM, animal welfare friendly or locally produced foods. Consumer groups' work has chiefly been to help consumers understand the labels and to differentiate between competing schemes on the same topic. For instance, there are nine organic certification schemes in the UK – the Soil Association being the most stringent, while others have less demanding criteria for accreditation.

Recycle and Waste

There have been a number of projects on the topic of *waste*. These have often been about recycling, for instance, practical examples about the sorts of waste that can be recycled; campaigns to reduce the amount of packaging; or efforts to support re-use of products.

[32] RAP (June 2012) "Best Practices in Designing and Implementing Energy Efficiency Obligation Schemes", report for IEA http://www.raponline.org/document/download/id/5003.

There has also been some interesting work looking at product durability within Europe with a recent area of focus on the topic by consumer bodies in Europe[33]. This was motivated by consumer concerns that washing machines and vacuum cleaners breakdown shortly after their warranty expires. The suspicion was that manufacturers have no incentive to design their products for long life, and instead knowingly use cheaper and shorter lived components. Consumer groups have made use of the EU's Ecodesign legislation – covering 40 different product groups – to lobby for better energy efficiency in product design in order to allow the broader "circular economy" to exist so as to ease the recovery of materials from end of life products. However, lobbying by some manufacturers hostile to greater product durability and repairability have prevented these legislative initiatives from being enacted.

The logic of designing products to maximise durability, repairability and upgradability rather than the prevailing produce-use-dispose product cycle represents a dramatic challenge to manufacturing. The question to be answered is how should companies commercialise product cycles in which products last years, maybe even decades? The car industry is at the forefront of this debate and has moved up-stream into car leasing and lift-sharing as a means of obtaining enduring sources of revenue in the event that the number of cars sold every year starts to fall[34]. Similar "new or sharing economy" activities may come to pervade different sectors and drive forward better environmental resource use and efficiency.

Green Lifestyles

A number of consumer organisations undertook work on *green lifestyles projects*. These encompass many different types of projects, for instance involvement in *national sustainable development week*, where the organisation undertakes activities to raise awareness of sustainability issues; and posting tips and advice on their websites to reduce consumers' impact on the environment. Many consumer organisations publish articles on green living in their magazines, sometimes featuring material to which their readership or outside academics have contributed. One interesting article was on readers' stories about highly durable products. There was also experimentation on using third party media other than magazines for educating and informing the readership, such as use of the organisational website.

Environmental Certification

A common area of work has been ensuring the robustness of voluntary (either entirely business led or supported by Government) *environmental certification schemes*. Consumer groups have played a major role in ensuring these schemes genuinely enhance the environment and are not watered down by industry. Most such schemes involve businesses paying a central certification body that awards a logo that can be used for marketing purposes.

[33] A position paper on product durability by the EU's consumer body BEUC can be found at http://www.beuc.eu/publications/beuc-x-2015-069_sma_upa_beuc_position_paper_durable_goods_and_better_legal_guarantees.pdf.
[34] Report by PWC on the shift from ownership to leasing models for cars in China.
http://www.pwccn.com/webmedia/doc/635570221864005413_auto_shift_ownership_access_jan2015.pdf.

One consumer body was active in the establishment and management of the Nordic ecolabel scheme (http://www.nordic-ecolabel.org/). This was established in 1992 and encompasses 67 product groups. The label has its own full time secretariat and the Nordic nations' consumer bodies sit on the product boards. The ecolabel is self-financing obtaining revenue from the companies that are awarded and make use of the label. The chair of the scheme is keen to extend the ecolabel to other territories.

It is common for consumer bodies to *extend the testing of products* to include energy consumption and water consumption. The Council already released results for such tests in product reviews in *Choice* magazine. This is particularly pertinent for fuel use in motor cars and electricity use in appliances. One country has tested for residues of pesticides in a food product. Their controversial findings led to a new pesticide residue standard being introduced to the relevant food standards. However such work is expensive and needs specific new resources from governments.

4.5 Lessons Learnt and Opportunities

Consumer groups have been most active in energy efficiency of buildings and appliances, food and waste and recycling.

There has been significant success in such energy related work in most economies, Hong Kong included, because governments have introduced policies to enhance energy efficiency, and these policies have a strong consumer acceptability / behaviour change component drawn from consumer experience. Key topics for consideration are, whether consumers are being provided with accurate and relevant information; and whether the standards are up to date. The Council is by far active in promoting energy efficiency, as the topic was an important feature in the Council's submission on the future of the electricity market and it is active in conducting product tests on electrical appliances, together with works with the EMSD on energy labelling issues.

Consumer groups have aspired to develop similarly rigorous and scientifically approved ways of measuring and communicating food sustainability, or lobbying businesses and governments on consumer preferences about the sustainability of food. However the subject matter is very complex in its nature and it would take persistent effort to steer it forward. From the perspective of consumers, they are looking towards consumer groups to help them clarify and make sense of which aspects of this complex range of issues *really matter*. The most successful role played by consumer groups has probably been on ensuring that retailers provide trustworthy and relevant SC information on food labels and educating consumers about some of the trade-offs between issues. Given the relatively high interest, Hong Kong people place on food and their high awareness of food quality the sustainability of food production would appear to be an interesting and important area of work for the Council’s future focus.

Waste and recycling is also an important area of work. Often Government has played a leading role because governments worldwide are responsible for finding space for waste disposal.

Consumer groups have included SC issues as part of their role in protecting consumers in terms of product testing, and mystery shopping (for instance to verify manufacturers' green claims or the behaviour of installers of green products). Such work requires new financial resources and in some cases these can be substantial. Where resources have been made available the projects can be highly effective injecting the consumer perspective into debates on product standards, certification schemes etc.

In their role of informing consumers all the consumer groups surveyed publish articles with SC subject matter in their magazines. In some cases significant resource and thought was given on how to make the SC issue real to the consumer, with articles focusing on real life product / consumer experiences. Consumer groups also frequently publish tips / factsheets about SC. These can be cheap and easy to produce, but sophisticated information on particular products or certain product groups could be more demanding.

One important limitation on SC work in Hong Kong is that both the local manufacturing and agricultural sectors are very small. Nearly all consumption in these markets is of imported product. Also, Hong Kong is a relatively small market compared to many other Asian countries so there is only limited scope for local products to be developed to furnish purely local consumer demand. This perhaps suggests that the Council shall engage into strategic partnership with relevant organisations in the region to develop a regional consumer voice. However, considerable effort needs to be put in place before commencement of work, with regard to approaching the right organisations; finding the right topics; and at the right operational level, so as to ensure all parties are equally committed to the goal.

Chapter 5

The Way Forward

Chapter 5 The Way Forward

Key Points

Consumers have a responsibility as citizens to make themselves better informed about the environmental impact of their consumption. They need to make purchases and take actions consistent with their beliefs, as businesses will generally only make more sustainable products available if consumers demand them. Consumers should now take further steps to change their lifestyles to advance the principles of sustainability. While Hong Kong consumers have currently undertaken certain simple and worthy behaviours, now is the time for them to push themselves towards making more complex and challenging changes to their behaviour.

SC is to be one of the Council's major new future themes of activity. The Council seeks to take this forward in several distinct ways – guiding and advising consumers to change their behaviour; working with international partners to monitor global movements in SC; exploring meaningful collaborations; being the voice of consumers through surveying their needs; and participating actively in Hong Kong SC initiatives to strive towards a synergy in relevant activities.

To meet the UN 2030 SCP Goal is a challenge to the world, the Government as the policymaker needs to play a leadership and facilitation role in designing the suitable policy framework and infrastructure to enable the desired behavioural change in its jurisdictions.

Through action and initiatives undertaken by different Bureaux, departments, advisory bodies and other stakeholders, a more holistic, strategic and systematic approach to achieving progress on SC needs to be realised. Better collection and disclosure of information is needed on Hong Kong consumers' pattern of resource use. Greater use of novel incentives like the successful plastic bag levy and financial support to help homeowners purchase more energy efficient appliances would incentivise consumers to adopt SC purchases. The school curriculum might also include experiential learning to help young people better understand more sustainable ways of living.

Businesses should provide high-quality, pertinent and trustworthy information about the sustainability performance of the products they sell, especially with credible certifications, and provided at the point of sale. Business should not just react to, but also anticipate consumer demand for more sustainably efficient products by bringing these sustainable products into the local market. It is clear that their current ESG reports have much room to improve. Their quality should be in line with the reporting guidelines issued by the Exchange or equivalent bodies in other jurisdictions, to provide meaningful data on the performance of their enterprises in this regard.

5.1 Challenges for Hong Kong Consumers

Over the past few decades Hong Kong has become one of the most affluent regions in the world, enjoying products and services that make use of natural capital from all over the world. SC represents a shift in this paradigm of global individualistic consumerism to that of global citizenship which means being aware and responding to the implications of this scale and style of purchasing.

The Council's consumer survey suggests that SC is an important issue for a high proportion of Hong Kong people. Almost two fifths of people thought their consumption had a *very big* or a *quite big* impact upon the environment, but a notable quarter of people were less or not concerned. While most people lacked confidence in their understanding of the term SC, their intuitive understanding was highly consistent with the UN's official definition. People use terms like *thinking about future generations* (76%), *looking after the environment* (75%) or *society consuming more efficiently* (64%). These chime well with traditional Chinese virtues of concern for the family, not wasting resources and saving money for future needs. Having said that certain portion of consumers, also consider that sustainability encompasses non-environmental issues like working conditions in countries that export to Hong Kong (52%) and farm-animal welfare (51%).

To achieve SC it is important to see that consumers translate their sentiments expressed in the Council's survey, into action. They have to exert their influence on the market by conveying these views through their purchases. This means taking the time to understand some of the environmental consequences of their actual consumption choices, to actively purchase sustainable products and call for businesses to offer suitable options if none are available. Consumers can be a potent force for change, because through their purchasing behaviour, they speak the same language as commerce. However, there can be obstacles to making SC purchases, such as: unreasonable prices, limited choice, unfamiliar and confusing labels and complicated standards. Business should look for consumers' SC needs proactively in order to establish a triple win outcome for consumers, business and the environment.

It is also critical to note that consumers are far from alike. In the Council's survey, it is noteworthy that 24% of people thought their consumption had *little* or *no impact* on the environment. Older people and retired people held these views more commonly than younger people. It is important for the Government, businesses and the stakeholder groups including the Council to join hands in educating and embracing the less informed or unconcerned groups to follow more favourable SC behaviours. It is also important for society to show their disapproval and to correct any dissenting minorities that attempt to slow down necessary action through demanding a right to promote clearly erroneous views. A classic example of this dilemma, shared by some Western countries, is the tolerance to allow climate change deniers a right to disseminate specious arguments and manipulate facts to prevent the taking of effective actions in reducing reliance on fossil fuels.

Many Hong Kong people say they already practice certain pro-sustainability behaviours. The majority of consumers say they switch off the lights when they leave a room; look at an appliance's energy efficiency before making a purchase; and avoid disposable plastic shopping bags. These are all commendable. However, to achieve more noticeable results on the environment the current level of behaviours is inadequate to meet the needs of Hong Kong and the world. The uncomfortable truth is that more substantial action is needed to make consumption sustainable. Some actions take more effort and planning; some mean consuming different goods; and some mean avoiding activities that are particularly damaging to the environment. Consumers differ in their capacity and their desire to makes these changes. These differences need to be recognised and respected. However, with concerted actions on the part of all, more could be achieved. From the Council's survey it is clear that such pro-sustainability behaviour is yet to become part of our regular Hong Kong lifestyles. Making sustainable choices is more expensive if green labelled products are limited. Some behavioural change take more effort, such as using curtains / shades instead of air-conditioning; or sharing certain resources instead of individually purchasing goods. An even more radical act is to reassess travelling styles to reduce the carbon footprint associated with flights. This means flying either less frequently or choosing closer destinations.

It is inevitably challenging to change certain behaviours, and consumers have to make the conscious effort to change over a period of time. Overseas experience proves that in some circumstances it can be done with the right policy, infrastructure, logistics and support. For example, it is true that taking time to sort waste and to use recycling facilities correctly takes time. But once learnt it becomes second nature. There is some evidence from the Council's survey that older people, perhaps because they have experienced less affluence than young people in their formative years, are more likely to recycle and pack uneaten food. There are useful lessons about conservation and waste recycling that the younger generation should understand as core values of our society, and that there have been good sustainable practices developed over the past decades.

Some sustainable products are more expensive than their non-sustainable equivalents. The large majority, 75%, of consumers say they are prepared to pay a price premium for more sustainable products, especially if they provide greater safety, or economy in-use. This was most true for the consumers earning more than $20,000 per month, and least true of older and retired consumers. However, the proportion of people saying they actually purchase items like daily necessities with appropriate environmental labels is less than half. This means there is significant room for the market to innovate and to develop.

Younger consumers and students in particular claimed they would be prepared to pay more. But this did not translate into action, with young people being the least likely group to usually purchase sustainable products. Conclusive reasons cannot be drawn from this survey about why this might be that being brought up in affluence and with many more consumption choices than earlier generations it is harder for them to imagine a different pattern of consuming.

It is important that consumers support sustainable products to encourage the SC market to develop and mature. As an example, the Marine Stewardship Council certification scheme with regard to fish consumption has improved as it has matured. In the six years since the scheme's introduction to Hong Kong, a broader range of certified fish has become available and the price differential between labelled and non-labelled fish has fallen[35].

[35] Verbal data presented by WWF at the Sustainable Seafood Seminar December 2, 2015.

The Council's survey asked people who do not usually make environmental purchases their reasons for not doing so. The majority of people were held back by supply-side factors: *not enough information* (56%), *goods were too expensive* (44%), *not easy to acquire* (43%). Different demographic groups were inhibited for different reasons: retired people *didn't think about it or they didn't think it was necessary*, students: *not easy to acquire or does not suit my needs*. Affordability due to purchasing power could also be a hidden reason. Marketing SC means that sculpting the concept and supplying products according to the target market segments is essential. Retired people still need to be persuaded, younger people need products to better conform to their tastes and fashions.

The issue of price also needs to be discussed. The perception is that sustainable means more expensive. The truth is much more complex. Some sustainable products are still niche and are expensive, as they do not have the economies of scale of more established competing products or because green certification schemes need to verify the green claims made by the producers. But it also true that buying more sustainable products could potentially save money. Taking home uneaten food; consuming abundant rather than endangered fish species; buying energy-efficient appliances; and increasing the durability of goods, ultimately saves money and saves the environment. The good news is that as more consumers adopt greener consumption patterns the market will adapt and reduce the premium prices that some sustainable products currently command.

There is much in the results in the survey to be optimistic about. Overall these results suggest that many consumers are ready to consume more sustainably, but that there are obstacles that prevent them doing as much as they might wish. Some of these can be remedied through providing more education as well as infrastructure put in place by the Government; and the provision of trustworthy information by business about their products' environmental performance. However, there is also much that consumers need to do to make themselves better informed; to make purchases consistent with their stated beliefs; and to modify their behaviour and lifestyle to become more sustainable. Being a sustainable consumer is a position of great responsibility. Continuing as we are now without any change is irresponsible and will ultimately be much more expensive for individuals and for society as a whole.

5.2 Challenges for the Council

The Council's mission statement: "To be the trusted voice in striving for consumer betterment towards safe and sustainable consumption in a fair and just market" already incorporates consideration of sustainability. That said the Council, like most consumer groups, has at least in the public imagination and in the press been best known for the emphasis it has placed on ensuring goods are safe; are priced fairly; are provide value-for-money; that consumers have effective redress against bad commercial practice; and that marketing information about products is honest and easy to understand.

The Council remains committed to all these activities and will continue doing this valuable work. But it also has to broaden its message across its product testing, consumer communications and policy advocacy work, so that it looks below the surface and into the environmental and social sustainability of the products and enterprises it interacts with. One of the targets set in the UN 2030 Agenda for Sustainable Development is by 2030 to ensure that people have relevant information and awareness to implement lifestyles in harmony with nature. This is a major ask for the consumer movement and other stakeholders. This might require some surprising and more nuanced positions to be taken in its advocacy work. For instance, prices of sustainably produced goods are sometimes more expensive than their polluting equivalents. It can be argued on a simple cost benefit basis that electricity from power stations incorporating flue-gas desulphurisation and cars with end-of-pipe technologies to reduce air pollution are more expensive than their polluting equivalents. The Council may reasonably argue on the contrary that consumers could well save money in the long-run through reduced medical treatments for respiratory diseases and through enjoying a healthier and cleaner life in their local environment.

SC means that the consumer is not just paying for the product itself but also for the co-produced environmental or social benefit, e.g., be it a better environmental outcome; fairer wages to the producer in the developing country; or the revitalised coral reef spared from the fishing trawler. While SC can be more expensive to buy because resources are transferred from the consumer to the producer of the environmental or social good, and can look like a cost imposition; it is really an investment in our children's future.

It is important to make clear that SC is not an excuse for producers to take advantage of consumers' good intentions. Accordingly, the Council will remain vigilant to ensure that consumers are treated fairly when buying sustainable products or services. For example, in its response to the consultation on the electricity market reform and in the Forum it co-organised with the Competition Commission, the Council drew attention to policies implemented in other countries to promote energy efficiency using funds collected from electricity customers to cross-subsidise improved energy efficiency. In such policies it is important to ensure that the energy efficiency supplier is spending money on energy efficiency effectively, and consumers are not asked to pay more than necessary. Similarly, consumers in the Council’s survey said they valued product durability. If consumers are asked to pay more for more durable goods, the Council as the consumer watchdog will spare no efforts in looking into the veracity of such claims on the end price consumers will be forced to pay.

Going forward there are four distinct roles the Council sees itself playing in relation to SC:

- *Behaviour change*: the Council will use its communication channels to influence and educate the SC behaviour of consumers throughout its educational and information provision activities;

- *International Coordination*: The Council will engage with other consumer organisations to monitor global measures that need to be taken and to facilitate meaningful collaboration;
- *Communicating the consumer viewpoint*: The Council will, resources permitting, use mechanisms like surveys, focus groups / interviews or online media to understand the consumer priorities and concerns with regard to sustainability issues and feed into Government, business or to the media.; and
- *Alignment*: The Council will adopt a partnership approach to realise the SCP goal. There are many good initiatives in Hong Kong that are being undertaken by different stakeholders, gaps in action or synergy in new activities shall be instigated. The Council will play a necessary role to partner with like-minded organisations to work jointly, or to support meaningful initiatives led by others.

Later in this chapter the Council will report on activities that seek to implement the above four directions.

5.3 Challenges for the Government

Our analysis of the actions by the Government and NGOs suggests there are some constructive and useful initiatives already in play worldwide. However, findings from the survey indicated a need for the Government to take a more strategic and action-orientated approach to influencing consumer purchase decisions and enable pro-sustainable behavioural change.

Like many countries in the world, far more still needs to be done to make decisive change in people's consumption habits, and to make Hong Kong's consumers' purchases and behaviours consistent with sustainability constraints.

Meeting the 2030 SCP Goal as listed in chapter 1 will be a challenge for all countries, further nations differ are in their state of development and capabilities. One pre-requisite to support policy / planning and effective execution is the availability of useful data to act upon. The Government, as the policymaker and the key provider in public services, is in the best position to collect, aggregate, analyse and release the required information, to review and close the policy gaps in sustainable issues, and to monitor and report work progress regularly to the public. For instance, while it is recognised that food consumption has important impacts on emissions of greenhouse gases, water quality, water use, sustaining fish consumption and protection of endangered species from the producer countries, there is little effective policy to promote more sustainable food consumption choices. Two of the SCP targets in the UN 2030 Agenda for Sustainable Development are to halve food waste and to achieve sustainable management and efficient use of natural resources by 2030. To equip business and other stakeholders to achieve this better information about resource flows is needed. The Council recommends that Government undertake a more systematic assessment of how Hong Kong consumption patterns (of water, food, textiles, timber products) gives rise to pressure in other countries' scarce resources, and whether more can be done to reduce primary extraction and encourage more circular materials use within the Hong Kong economy.

There are also areas of sustainability that require close or even synchronised actions across different Bureaux and statutory bodies' areas of responsibility. For example, while the Environment Bureau has policy responsibility for waste, policy responsibilities for transport, land use, planning and trade are led by other Bureaux. In the 2016 policy address[36] the Chief Secretary for Administration was tasked with chairing an inter-departmental committee to co-ordinate implementation of the Hong Kong Climate Change Report 2015. This might be a useful approach to sustainable consumption also.

There is also scope for Government to influence consumer purchases through changing the relative prices consumers face when making consumption choices. Since the plastic bag levy was introduced in July 2009 usage of plastic bags in large supermarkets was greatly reduced[37]. In previous years, sales of low sulphur auto-fuels have greatly increased through concessionary rates of fuel taxes. Both show the power of carefully targeted product charges or subsidies in influencing consumer behaviour. The Government should see if such an approach could be used to drive other SC choices.

More could be done to enable consumers to more easily deposit and arrange collection of recyclable waste. Hong Kong faces significant challenges in terms of availability of landfill for waste disposal. The Government has discussed producer responsibility schemes covering waste electronics and glass beverage bottles. These are to be applauded but need to be developed alongside the existing waste collection infrastructure. In other countries a variety of economic instruments have been used, like taxes on landfill, deposit refund schemes and variable charges of waste. These provide useful accompanying measures to encourage the consumer to adapt their behaviour, alongside the improved waste collection infrastructure.

In Hong Kong emissions of greenhouse gases are strongly associated with electricity consumption. The Government's voluntary and mandatory schemes are both influential in terms of driving the purchases of new products. However, as the Council reported in its *Choice* magazine, substandard products and their questionable claims on environmental performance has been identified. The setting of standards has now been revisited but there is a need to further increase the types of appliances included in the energy efficient labelling scheme; and there is also a need to drive and accelerate purchase decisions towards more energy-efficient ones. The Government might consider incentivising more energy-efficient purchases through special incentive or support schemes in the community, and to look into legislations on product maintenance.

EMSD and the Council for Sustainable Development already play an important role in transmitting trusted and relevant information to the public through their websites or activities. Government might encourage even more experiential learning in the school curriculum as well as the provision of information about sustainable food, energy conservation or water efficiency.

---

[36] Chapter on Climate Change and energy http://www.policyaddress.gov.hk/2016/eng/p201.html.
[37] ENB published information on the effectiveness of the first phase of the plastic bags levy policy http://www.epd.gov.hk/epd/psb_extension_consultation/file/con_eng.pdf.

5.4 Challenges for Business

Consumers are interested in having trustworthy and relevant information about the sustainability performance of the goods and services they buy. With regard to energy labelling there is a high degree of international consensus and most advanced economies require energy appliances to have energy labels. In other product groups similar consensus is harder to reach and no country examined by the Council could be said to have made a breakthrough in structuring another one. Here in Hong Kong consumers will find on the shelves various labelling schemes, either developed solely by the industry, or developed with the help of trusted independent third parties like environmental NGOs. Food sustainability in particular is a complex topic, trading-off different environmental themes like fair trade, protection of endangered species and fragile habitats, animal welfare, nutrient run-off in farms and greenhouse gas emissions from production and transport of food. Business need to develop a simple labelling system to communicate food stuffs performance on the characteristics that consumers care about.

In the Council's survey, consumers expressed an interest in better product durability. This means goods should last longer, be easier to repair and manufacturers and importers need to maintain inventories of spare parts for a reasonable length of time. Many consumer goods are designed with regional markets in mind. Recognising this, consumer groups in Europe are working together to articulate their wishes to manufacturers and policy makers.

In our survey, over 60% of consumers expressed a preference for purchasing goods and services from companies that embrace environmental issues or engage in environmental protection. Accordingly, the average quality of environmental reporting needs to be significantly improved to provide consumers with this sort of assurance. In our sample of Hong Kong listed businesses, around 40% of enterprises produced some form of report that touched on environmental issues. However, only a very small proportion of these companies produced documents that met quality standards proposed by the Exchange or international standards like the GRI. Transparent disclosure on strategies, progress and results is not common conduct as far as the Council research is concerned, except for some companies with much larger capitalisation than most. This has to change if Hong Kong is to meet the UN 2030 Agenda for Sustainable Development target which is for large and transnational companies to integrate sustainability information into their reporting cycle.

One encouraging finding from our survey was that a good proportion of companies reviewed were either producing environmental products for sale to consumers, or incorporating sustainability aspects into the premises / spaces that consumers accessed. This means that if companies are committed to supporting SCP and to better serve their customers, there are much potential for future development.

5.5 Partnership with Stakeholders

The Council looks forward to playing its role in the necessary partnership with business and Government to make Hong Kong's consumption more sustainable. The Council can make an important contribution to facilitate efforts by consumers wishing to make more sustainable choices, by providing consumers with practical tools and information and by influencing the Government and business to ensure that consumers that seek to live more sustainably have access to appropriate facilities and products.

Over the past few months the Council has undertaken a rigorous review on the role it might play over the next two to three years. SC is to be one of the Council's major new themes of activity. Our goal is to contribute to the development, knowledge about and education of SC in Hong Kong. The Council will do this by:

- *Advocating and promoting the key messages and behaviours on sustainable consumption to the general public* – capitalising on the developments by the international consumer movement, government policies or other suitable opportunities, promulgating the positions and messages of the Council through communications tools like the Council's website and magazine;
- Increasing monitoring of consumer needs and demands, and also their state of mind and behaviours on supporting SC;
- *Including sustainability aspects in the Council's testing and survey projects, to enhance consumer information* – Consumers need quality and impartial information on the actual sustainability performance of their products. This performance measurement might include resource efficiency of different products, their packaging materials, environmental impacts during the use of products, e.g., emissions of VOCs, noise, repair and maintenance of small appliances, etc.; and
- *Enhancing consumers' capability to understand green labels / ecolabels on the market* – to explore the development of appropriate tools to enable consumers to facilitate their understanding and make use of green labels / ecolabels for consumption choices.

The detailed programme of projects will be developed and implemented in the coming years, with possible and effective partnership in place. There are some areas in which the Council wishes to make early progress. These include an on-going lobbying effort for the Government to introduce energy efficiency mandates in the new electricity regulatory regime that will enable consumers to improve their energy efficiency behaviour.

The Council also intends to advocate for more consistency in the quality and content of CSR reports produced by Hong Kong businesses.

5.6 Next Steps

With this report on SC the Council is taking the very first step in the strategic direction of its advocating for SC. As SC is a very complex and global subject, it will evolve over time and the Council has to be very vigilant and diligent, in pursuing its strategies and actions to maximise the benefits of its efforts for consumers. The Council will look for feedback from consumers and stakeholders on the ideas presented in this report, and will engage with policymakers and stakeholders to build a sustainable future for the environment and the next generation. To this extent the Council plans to organise a Sustainable Consumption Forum to discuss the subject soon after this report is published.

Achieving SC is a global issue that requires all stakeholders to play their part in a concerted manner. It requires the government, consumer groups, social and environmental groups, stakeholders in business and the public sector working together. In concluding this report, the Council hopes it will begin the start of this collaboration.

.

Annex 1 : Hong Kong Consumers' Attitude and Behaviour towards the Issue of Sustainable Consumption

Questionnaire

Part 1 Consumers' awareness and attitude towards environmental protection and sustainable consumption

(Concern over the environment)[1]

		Very concerned	Concerned	Neutral	Concerned only a little	Not concerned at all	No opinion
		5	4	3	2	1	99
A1	How would you rate your concern for the environment?	□	□	□	□	□	□

		Very big	Quite big	Average	A little	None at all	No opinion
		5	4	3	2	1	99
A2	What kind of impact do you think your consumption pattern has on the environment?	□	□	□	□	□	□

(Understanding the concept of sustainable consumption)

		Fully understand	Quite well understand	Average	Not quite understand	Not at all understand	No opinion
		5	4	3	2	1	99
A3	How would you rate your understanding of the concept "Sustainable Consumption"?	□	□	□	□	□	□

A4 What does "Sustainable Consumption" mean to you?[2]

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
		5	4	3	2	1	99
a	Society needs to consume less	□	□	□	□	□	□
b	Society needs to find more efficient ways to consume	□	□	□	□	□	□
c	You need to consume less	□	□	□	□	□	□
d	You need to find more efficient ways to consume	□	□	□	□	□	□
e	Some people need to consume more	□	□	□	□	□	□
f	Looking after the environment	□	□	□	□	□	□
g	Consideration for future generation	□	□	□	□	□	□
h	Others (Please specify):_______	□	□	□	□	□	□

[1] Reference from "The Sustainable Consumption: Young Australians as Agents of Change, The National Youth Affairs Research Scheme (NYARS), November 2004".
[2] Reference from "The Sustainable Consumption: Young Australians as Agents of Change, The National Youth Affairs Research Scheme (NYARS), November 2004".

(Association between sustainable consumption and other issues)

A5 Do you think that “Sustainable Consumption” is associated with the following issues? Please rate from 1 to 5, 5 refers to “Strongly associated”, 1 refers to “No at all associated”.

		Strongly associated	Somewhat associated	Neutral	Note very associated	No at all associated	No opinion
		5	4	3	2	1	99
Natural environment							
a	Climate change	□	□	□	□	□	□
b	Air quality	□	□	□	□	□	□
c	Sea water quality	□	□	□	□	□	□
Energy							
d	Energy conservation	□	□	□	□	□	□
e	Use of renewable energy i.e. solar power, wind power	□	□	□	□	□	□
Species							
f	Protection of endangered species	□	□	□	□	□	□
g	Sustainable way of consuming biological resources i.e. sustainable seafood consumption	□	□	□	□	□	□
Mode of production							
h	Housed farm animals be provided adequate space	□	□	□	□	□	□
i	Fair wages received by workers in producing countries	□	□	□	□	□	□
j	Avoid using harmful substances or methods in production	□	□	□	□	□	□
Consumption habit							
k	Excessive consumption	□	□	□	□	□	□
l	Waste reduction	□	□	□	□	□	□
m	Waste recycling	□	□	□	□	□	□
n	Others (Please specify):______	□	□	□	□	□	□

(Concern about product information)[3]

A6 Are you concerned about the following product information?

		Very concerned	Concerned	Neutral	Concerned little	Not concerned at all	No opinion
		5	4	3	2	1	99
a	Cruelty to animals in research and testing process	□	□	□	□	□	□
b	Excessive consumption of energy and resources during the production process	□	□	□	□	□	□
c	Pollution as a result of the production process causes eco-system damage	□	□	□	□	□	□
d	Product pollutes the environment when in use	□	□	□	□	□	□
e	Durability of the product	□	□	□	□	□	□
f	Offer of maintenance plan to extend product life	□	□	□	□	□	□
g	Whether the product or its materials are recyclable	□	□	□	□	□	□
h	Frequent product updates making the old product obsolete	□	□	□	□	□	□
i	Whether product is excessively packaged	□	□	□	□	□	□

A7 Attitude towards energy conservation[4]

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
		5	4	3	2	1	99
a	Energy conservation at home is beneficial for environmental protection	□	□	□	□	□	□
b	Energy conservation at home is effective for environmental protection	□	□	□	□	□	□
c	Energy conservation at home is convenient for environmental protection	□	□	□	□	□	□

A8 Attitude towards waste separation

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
		5	4	3	2	1	99
a	Waste separation at home is beneficial for environmental protection	□	□	□	□	□	□
b	Waste separation at home is effective for environmental protection	□	□	□	□	□	□
c	Waste separation at home is convenient for environmental protection	□	□	□	□	□	□

[3] Part of the items were referenced from the Research Report on China Sustainable Consumption 2012, The China Consumers' Association (CCA) and the Chinese Academy of Social Sciences, 2012.
[4] Reference from "Attitudes towards Energy Conservation: D. Webb, G.N. Soutar, T. Mazzarol, P. Saldaris, Self-determination theory and consumer behavioural change: evidence from a household energy-saving behaviour study, Journal of Environmental Psychology 35 (2013) 59–66."

Part 2 Consumers' behaviour in relation to sustainable consumption

(Purchasing behaviour)[5]

B1 To what extent do you agree with the following statements about your purchasing behaviour? Please rate from 1 to 5, 5 refers to strongly agree, 1 refers to strongly disagree.

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
		5	4	3	2	1	99
Purchasing behaviour related to energy conservation products							
a	You purchase energy-efficient appliances (i.e. refrigerator, air-conditioner, etc.)	□	□	□	□	□	□
b	You purchase water-efficient products (i.e. washing machine, flush toilet, etc.)	□	□	□	□	□	□
c	You tend to purchase new products in which green technology is used	□	□	□	□	□	□
d	You are eager to purchase products that use renewable energy (i.e. solar powered appliances, electric cars, etc.)	□	□	□	□	□	□
e	You usually purchase daily necessities with "Environmental Labelling"	□	□	□	□	□	□
Purchasing behaviour related to food							
f	You usually purchase food with "Green Label" (i.e. environmental label or pollution-free)	□	□	□	□	□	□
g	You purchase organic food	□	□	□	□	□	□
Purchasing behaviour related to species							
h	You refuse to purchase clothes made from endangered animals	□	□	□	□	□	□
i	You refuse to eat meat from endangered animals	□	□	□	□	□	□
Purchasing behaviour related to Fair trade							
j	You usually purchase products with fair trade label	□	□	□	□	□	□
General purchasing behaviour							
k	You usually purchase products with simple or environmentally friendly packaging	□	□	□	□	□	□
l	You avoid purchasing single-use products	□	□	□	□	□	□
m	You check whether the skin care products contain polluting ingredients before purchase	□	□	□	□	□	□
n	You carry your own bottle so you consume less bottled drinks	□	□	□	□	□	□
o	You carry your own bag and refuse to use plastic bags	□	□	□	□	□	□
p	You plan what you are going to buy before shopping	□	□	□	□	□	□
q	You usually purchase unnecessary items	□	□	□	□	□	□
r	You borrow seldom used items/ tools (i.e. drill, ladder, etc.) from friends/ neighbours instead of buying them	□	□	□	□	□	□

[5] Part of the items were referenced from the Research Report on China Sustainable Consumption 2012, The China Consumers' Association (CCA) and the Chinese Academy of Social Sciences, 2012.

Disposal behaviour							
s	If a broken domestic appliance could be repaired, you will repair it and continue to use it	☐	☐	☐	☐	☐	☐
t	You usually classify your rubbish and dispose of it into recycling bins accordingly	☐	☐	☐	☐	☐	☐

(Conservation behaviour - Electricity)[6]

B2 Do you usually practice the following habits?

		Always	Usually	Sometimes	Seldom	Never	No opinion
		5	4	3	2	1	99
a	Switch off the light if not in room	☐	☐	☐	☐	☐	☐
b	Completely turn off electrical appliances not in use (not in stand-by mode)	☐	☐	☐	☐	☐	☐
c	Use energy saving light bulbs	☐	☐	☐	☐	☐	☐
d	Reduce the use of air conditioners as much as possible	☐	☐	☐	☐	☐	☐
e	Lower the blinds or curtains to prevent heat loss during winter and heat absorption during summer	☐	☐	☐	☐	☐	☐
f	Wear thicker clothes instead of using heating appliances in winter	☐	☐	☐	☐	☐	☐
g	Use washing machines only if there are enough clothes	☐	☐	☐	☐	☐	☐
h	Reducing the time of using electrical appliances	☐	☐	☐	☐	☐	☐

(Conservation behaviour – water / transportation / waste reduction)[7]

B3 To what extent do you agree with the following statements regarding your conservation behaviour? Please rate from 1 to 5, 5 refers strongly agree, 1 refers to strongly disagree.

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
		5	4	3	2	1	99
a	You conserve water when you use taps	☐	☐	☐	☐	☐	☐
b	You shorten your shower time as much as you can	☐	☐	☐	☐	☐	☐
c	You use public transport or go on foot instead of driving or using a taxi when you go to school/work	☐	☐	☐	☐	☐	☐
d	You pack or retain leftover food, eating the leftover food later instead of throwing it away	☐	☐	☐	☐	☐	☐
e	You recycle recyclable material	☐	☐	☐	☐	☐	☐
f	You reduce travel by plane as much as you can	☐	☐	☐	☐	☐	☐

[6] Reference from "Behaviour: D. Webb, G.N. Soutar, T. Mazzarol, P. Saldaris, Self-determination theory and consumer behavioural change: evidence from a household energy-saving behaviour study, Journal of Environmental Psychology 35 (2013) 59–66".

[7] Part of the items were referenced from the Research Report on China Sustainable Consumption 2012, The China Consumers' Association (CCA) and the Chinese Academy of Social Sciences, 2012; and the UK Sustainable Consumption Survey, 2009.

(Recycling behavior)[8]

B4 Regarding the following items, do you put them into recycling bins or return to recycling companies?

		Always	Usually	Sometimes	Seldom	Never	Not applicable
		5	4	3	2	1	6
a	Glass	☐	☐	☐	☐	☐	☐
b	Metal	☐	☐	☐	☐	☐	☐
c	Plastic	☐	☐	☐	☐	☐	☐
d	Paper	☐	☐	☐	☐	☐	☐

Part 3 Consumers' readiness towards sustainable consumption

(Consumers' willingness to pay)[9]

C1 Where products have the same function, how much more would you pay (in percentage) for those products with the following sustainability attributes?

		5%	10%	20%	50%	Not acceptable if the price is higher than that of normal products
		1	2	3	4	5
a	Production process uses renewable energy to reduce consumption of resources	☐	☐	☐	☐	☐
b	Minimise pollution during the production process	☐	☐	☐	☐	☐
c	All materials are recyclable	☐	☐	☐	☐	☐
d	All materials are non-toxic	☐	☐	☐	☐	☐
e	The product uses less energy and resources	☐	☐	☐	☐	☐

(Consumers' motive)[10]

C2 To what extent do you agree with the following statements regarding sustainable consumption? Please rate from 1 to 5, 5 refers strongly agree, 1 refers to strongly disagree.

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
		5	4	3	2	1	99
a	If the enterprise embraces the environment in its production, you prefer to buy its products and services	☐	☐	☐	☐	☐	☐
b	If the enterprise seriously harms the environment in its production, you refuse to buy its goods and services	☐	☐	☐	☐	☐	☐

[8] Reference from A. Diamantopoulos et al., Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation, Journal of Business Research 56 (2003) 465–480.
[9] Reference from the Research Report on China Sustainable Consumption 2012, The China Consumers' Association (CCA) and the Chinese Academy of Social Sciences, 2012.
[10] Reference from the Research Report on China Sustainable Consumption 2012, The China Consumers' Association (CCA) and the Chinese Academy of Social Sciences, 2012.

C3 Do you usually purchase products or services that are produced in an environmentally friendly or sustainable way?

1 □ Yes, what are the three most important reasons for doing so?

1 □ Energy conservation
2 □ Environmental protection
3 □ Consideration for future generation
4 □ Waste reduction
5 □ More durable
6 □ Less harmful materials
7 □ Concern with the treatment received by labour of the producing countries
8 □ Fashionable or simple lifestyle
9 □ Others (Please specify):_______

2 □ No, what are the three most important reasons for not doing so?

1 □ Too boring
2 □ Not enough information
3 □ Does not suit my needs
4 □ Too expensive
5 □ No suitable substitutes
6 □ Not easy to acquire
7 □ You never think about it
8 □ You do not think it is necessary
9 □ Others (Please specify):_______

(Motive for practising sustainable consumption)

C4 To what extent do you agree with the following statements?[11]

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
		5	4	3	2	1	99
a	You are willing to do more to support sustainable consumption	□	□	□	□	□	□
b	You need more information to understand how to consume more sustainably	□	□	□	□	□	□
c	Any changes you make to adopt sustainable consumption need to fit in with your lifestyle	□	□	□	□	□	□
d	If government does more on sustainable consumption, you would too	□	□	□	□	□	□
e	If business does more on sustainable consumption, you would too	□	□	□	□	□	□

(Others)

		Yes, a lot	Yes, many	Yes, average	Yes, some	No	No opinion
		5	4	3	2	1	99
C5	Does this survey enhance your understanding of sustainable consumption?	□	□	□	□	□	□

[11] Reference from the UK sustainable consumption survey, 2009.

Part 4 Demographics of Respondents

D1 Gender:

1 □ Male

2 □ Female

D2 What is your age?

1 □ 15 - 19

2 □ 20 - 24

3 □ 25 - 29

4 □ 30 - 34

5 □ 35 - 39

6 □ 40 - 44

7 □ 45 - 49

8 □ 50 - 54

9 □ 55 - 59

10□ 60 - 64

99□ Refuse to answer

D3 What is your marital status?

1 □ Single

2 □ Cohabitating

3 □ Married

4 □ Widowed

99□ Refuse to answer

D4 Do you have any children?

1 □ Yes, no. of children________

2 □ No

99□ Refuse to answer

D5 What is your educational attainment?

1 □ Primary or below

2 □ Lower secondary

3 □ Upper secondary/Matriculation

4 □ Tertiary: Diploma/Certificates/ Higher Diploma/ Associate Degree

5 □ Tertiary: Degree course or above

99□ Refuse to answer

D6 Type of housing are you residing?

1 □ Public rental flats

2 □ Subsidised sale flats

3 □ Private residential flats

4 □ Modern village houses/Villas/Bungalows/Simple stone structures/Traditional village

5 □ Sub-divided units

6 □ Others (Please specify): ____________

D7 Are you an owner-occupier or tenant of the living area?

1 □ Owner-occupier
2 □ Tenant: Sole tenant
3 □ Tenant: Co-tenant/Main-tenant/Sub-tenant
4 □ Rent-free
5 □ Provided by employer/company
6 □ Others (Please specify): ____________

D8 Are you employed?

1 □ Yes: I am working
2 □ No: student
3 □ No: homemaker
4 □ No: retired person
5 □ No: do not work and do not study
6 □ Others (Please specify): ____________
99□ Refuse to answer

D9 Could you tell me your total monthly personal income (HK$)? (Including your employee's contribution to the Mandatory Provident Fund Scheme, income from temporary job(s), housing allowance, bonus and double pay (divide them by 12 months), but excluding government financial assistance or family support, etc.)

0 □ No income
1 □ $1 - $4,999
2 □ $5,000 - $9,999
3 □ $10,000 - $14,999
4 □ $15,000 - $19,999
5 □ $20,000 - $24,999
6 □ $25,000 - $29,999
7 □ $30,000 - $39,999
8 □ $40,000 - $49,999
9 □ $50,000or above
99□ Refuse to answer

~ End~

Annex 2: Groups Involved in Sustainable Consumption in Hong Kong

Government and Related bodies

Administration Wing, Chief Secretary for Administrative - http://www.admwing.gov.hk/eng/home/home.htm
Advisory Council on the Environment - http://www.epd.gov.hk/epd/english/boards/advisory_council/maincontent.html
Agriculture Fisheries and Conservation Department - http://www.afcd.gov.hk/eindex.html
Buildings Department - http://www.bd.gov.hk/
Central Policy Unit - http://www.cpu.gov.hk/en/home/index.html
Civil Engineering and Development Department (including Mines Division) - http://www.cedd.gov.hk/
Commerce and Economic Development Bureau - http://www.cedb.gov.hk
Committee on the Promotion of Civic Education - http://www.cpce.gov.hk/main/en/index.htm
Construction Industry Council - http://www.hkcic.org/eng/main.aspx
Council for Sustainable Development - http://www.enb.gov.hk/en/susdev/council/index.htm
Development Bureau - http://www.devb.gov.hk
Drainage Services Department - http://www.dsd.gov.hk/
Education Bureau - http://www.edb.gov.hk/en/index.html
Electrical and Mechanical Services Department - http://www.emsd.gov.hk/en/home/index.html
Environment and Conservation Fund - http://www.ecf.gov.hk/en/home/index.html
Environment Bureau - http://www.enb.gov.hk/en/top.html
Environmental Campaign Committee - http://www.ecc.org.hk/english/index.html
Environmental Protection Department http://www.epd.gov.hk/epd/
Government Logistics Department - http://www.gld.gov.hk/
Highways Department - https://www.hyd.gov.hk/
Home Affairs Bureau - http://www.hab.gov.hk/en/home/index.htm
Hong Kong Observatory - http://www.hko.gov.hk/contente.htm
Hong Kong Science and Technology Parks Corporation - http://www.hkstp.org/zh-HK/Homepage.aspx
Innovation and Technology Commission - http://www.itc.gov.hk/en/welcome.htm
Leisure and Cultural Services Department http://www.lcsd.gov.hk
Panel on Environmental Affairs - http://www.legco.gov.hk/general/english/panels/yr12-16/ea.htm
Planning Department - http://www.pland.gov.hk/pland_en/index.html
Transport and Housing Bureau - http://www.thb.gov.hk/eng/index.htm
Transport Department - http://www.td.gov.hk/en/home/index.html
Water Supplies Department - http://www.wsd.gov.hk/en/home/index.html

Business-Ralated Organisations

American Chamber of Commerce in Hong Kong - http://www.amcham.org.hk/
Asia Business Council - http://www.asiabusinesscouncil.org/index.html
Australian Chamber of Commerce in Hon Kong - http://www.austcham.com.hk/
British Chamber of Commerce in Hong Kong - http://www.britcham.com/
Business Environment Council - http://www.bec.org.hk/
Canadian Chamber of Commerce in Hong Kong - http://www.cancham.org/
Chinese General Chamber of Commerce - http://www.cgcc.org.hk/en/index.aspx
Chinese Manufacturer's Association of Hong Kong - http://www.cma.org.hk/
Environmental Contractors Management Association - http://www.ecma.org.hk/en/menu.html
Federation of Hong Kong Industries - https://www.industryhk.org/en/
Green Building Council - https://www.hkgbc.org.hk/eng/
Hong Kong Association for Testing, Inspection and Certification Limited - http://www.hktic.org/

Hong Kong Cleaner Production Centre - https://www.cleanerproduction.hk/en_index.asp
Hong Kong Construction Association - http://www.hkca.com.hk/en/
Hong Kong Federation of Restaurants & Related Trades - http://www.hkfort.org.hk/
Hong Kong Food Council Limited - http://www.hkfc.org.hk/eng/index.asp
Hong Kong General Chamber of Commerce - http://www.chamber.org.hk/en/index.aspx
Hong Kong Institute of Biotechnology Ltd. - http://www.hkib.org.hk/
Hong Kong Productivity Council - https://www.hkpc.org/zh-HK/
Stock Exchange of Hong Kong Ltd - http://www.hkex.com.hk/eng/index.htm

Non-governmental Organisations / Green Groups

Civic Exchange - http://www.civic-exchange.org/en/
Clean Air Network – CAN - http://www.hongkongcan.org/v2/
Clean the Air - http://cleartheair.org.hk/
Designing Hong Kong - http://www.designinghongkong.com/v4/
Earth Care - http://www.earth.org.hk/en/index.html
Friends of the Earth – Hong Kong http://www.foe.org.hk
Global Institute for Tomorrow – GIFT http://www.global-inst.com/
Go Green - https://gogreenhk.wordpress.com/about/
Green Council - http://www.greencouncil.org/eng/index.asp
Green Peng Chau Association - http://www.greenpengchau.org.hk/Green_Peng_Chau_Association_2015/gpca.html
Green Power - http://www.greenpower.org.hk/html/eng/index.shtml
Green Sense - http://greensense.org.hk/en/about/
Green Technology Consortium - http://www.gtc.org.hk/?lang=en
Greeners Action - http://www.greeners-action.org/modules/AMS/
Greenpeace East Asia - http://www.greenpeace.org/eastasia/
Hong Kong Alternatives - http://www.hkalternatives.com/Eng/
Hong Kong Dolpinwatch Ltd. - http://www.hkdolphinwatch.com/
Hong Kong Outdoors - http://www.hkoutdoors.com/
Hong Kong Society of Herpetology Foundation - http://www.hkherp.org.hk/en/
Hong Kong Sustainable Development Forum – http://hksdf.org.hk/
Kadoorie Farm and Botanical Garden - http://www.kfbg.org/eng/
Kiosk - http://discoverkiosk.com/
Ocean Park Conservation Foundation Hong Kong - http://www.opcf.org.hk/en/
Oxfam Hong Kong - http://www.oxfam.org.hk/en/default.aspx
Produce Green Foundation - http://www.producegreen.org.hk/eng/index_e.htm
Sustainable Ecological Ethical Development Foundation http://www.seed.org.hk/en/about/introduction
Tai Po Environmental Association - http://www.taipoea.org.hk/index.php
The Conservancy Assocation - http://www.cahk.org.hk/
The Hong Kong Bird Watching Society - http://www.hkbws.org.hk/web/eng/index_eng.htm
The Hong Kong Council of Social Service - http://www.hkcss.org.hk/e/
World Green Organisation - http://thewgo.org/website/eng/introduction/
WWF Hong Kong - http://www.wwf.org.hk/en/

Professional / Academic Institutions

Chinese University of Hong Kong - http://www.cuhk.edu.hk/english/index.html
City University of Hong Kong - http://www.cityu.edu.hk/
HKU Centre of Urban Studies and Urban Planning - http://fac.arch.hku.hk/upad/cusup/
HKU School of Biological Sciences - http://www.biosch.hku.hk/

Hong Kong Baptist University - http://buwww.hkbu.edu.hk/eng/main/index.jsp
Hong Kong Institute of Acoustics - http://hkioa.org/
Hong Kong Institute of Environmental Impact Assessment - http://hkieia.org.hk/
Hong Kong Institute of Planners - http://www.hkip.org.hk/En/index.asp
Hong Kong Institution of Engineers, Environmental Division - http://ev.hkie.org.hk/
Hong Kong Management Association - http://www.hkma.org.hk/
Hong Kong University of Science and Technology - http://www.ust.hk/
Hong Kong Waste Management Association - http://www.hongkongwma.org.hk/
Lingnan University - http://www.ln.edu.hk/
The Hong Kong Polytechnic University - http://www.polyu.edu.hk/web/en/home/index.html
The Open University of Hong Kong - http://www.ouhk.edu.hk/wcsprd/Satellite?pagename=OUHK/tcSingPage&lang=eng
The University of Hong Kong - http://www.hku.hk/

Source: Most of the sites above were obtained from the Environment Bureau's website

消 費 者 委 員 會
CONSUMER COUNCIL

消費者委員會
香港北角渣華道191號嘉華國際中心22樓
電話：2856　3113
傳真：2856　3611
電子郵箱：cc@consumer.org.hk
網站：www.consumer.org.hk

Consumer Council
22/F, K. Wah Centre, 191 Java Road
North Point, Hong Kong
Tel: 2856 3113
Fax: 2856 3611
E-mail: cc@consumer.org.hk
Web: www.consumer.org.hk

消費者委員會2016年2月出版　Published by Consumer Council, February 2016