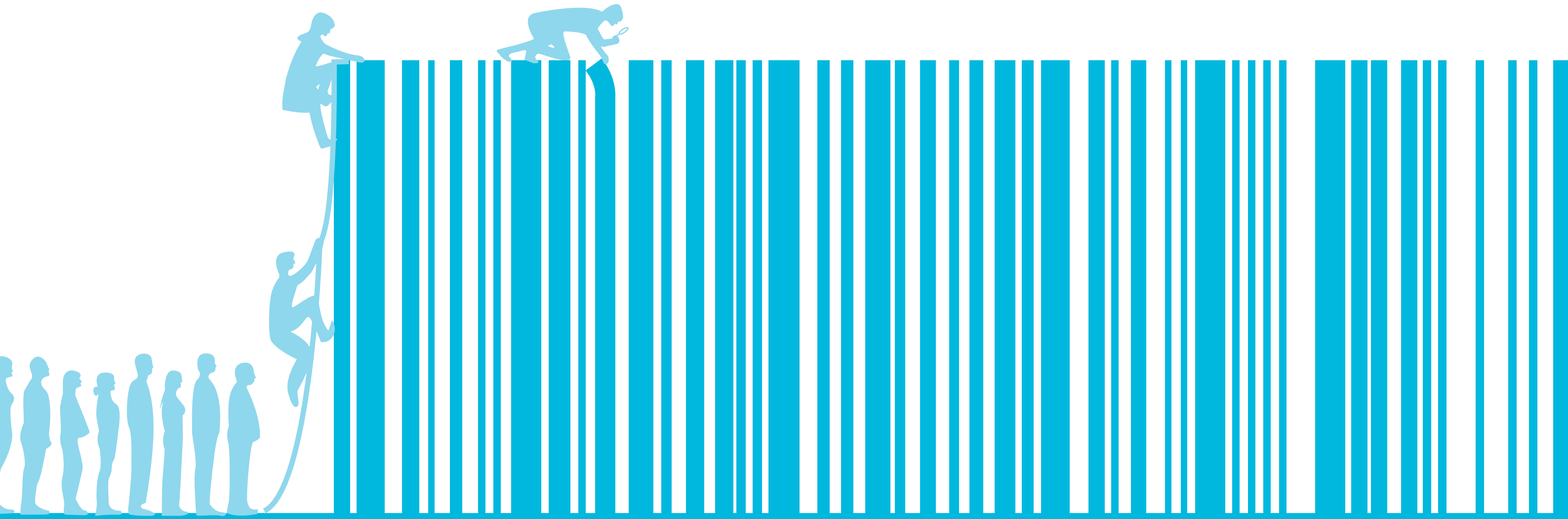
SWITCH-ASIA BOOKLET SERIES NO. 3

switchasia NETWORK FACILITY

MAINSTREAMING SUSTAINABLE CONSUMPTION IN ASIA



PART 1 | THE CHALLENGES

WHAT IS HOLDING US BACK?

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This booklet is prepared by Consumers International in collaboration with and under the supervision of the SWITCH-Asia Network Facility.

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CONSUMERS INTERNATIONAL




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FOREWORD BY EUROPEAN COMMISSION

In its 2007-2013 regional programme for Asia, the European Commission underlines that one of its objectives is the promotion of goods and services that are environmentally friendly in their production and use. The SWITCH-Asia programme directly targets this objective. SWITCH-Asia recognises the importance of addressing production and consumption simultaneously to achieve this goal.

The programme particularly targets small and medium-sized enterprises (SMEs), which are seen as the backbone of the Asian economy and form the supplier-base. But without effective demand for green and fair products, SMEs will not deliver environment-friendly practices and products. A key barrier is lack of awareness and empowerment of consumer groups – and this needs to be tackled.

Dirk Meganck

Sustainable consumption and production can be seen as two sides of the same coin. The two elements complement and mutually reinforce each other: stimulating the demand for sustainable products affects production patterns and the availability of sustainable products will enhance demand.

As Europe and Asia collaborate for sustainable consumption, all major groups from governments and businesses to non-governmental organisations and educators need to act. Europe has learned that none of these actors can lead alone. Therefore, SWITCH-Asia suggests a co-ordinated and multi-actor approach that can activate the opportunities and mechanisms to accelerate change.

Bringing out the responsible consumer in everyone including low-income groups by making sustainable products the norm is one of the main objectives of the SWITCH-Asia programme. This SWITCH-Asia booklet provides a good overview - both of the challenges we are all now facing, as well as of the opportunities that are already there for the taking.

Dirk Meganck,

Director for Asia, Central Asia and Pacific
Directorate-General for Development and Cooperation – EuropeAid,
European Commission

FOREWORD BY CONSUMERS INTERNATIONAL

Consumers International[1] welcomes this joint work with the SWITCH-Asia Programme of the European Commission. It is a very good opportunity for us to share the consumers' perspective in mainstreaming sustainable consumption in Asia. We have been working with our members and other like-minded groups throughout the globe to promote sustainable consumption and production. However, this has not been easy and there seem to be more and more challenges with fewer and fewer resources to deal with them. This does not stop us though, from campaigning for a marketplace where the **responsible choice is the easy choice**.

In preparing this booklet, we followed the Chinese way of writing 'crisis'. They use two brush strokes – one stroke stands for danger, the other for opportunity. In Part 1 we present consumers' day-to-day **challenges** in their effort to switch to sustainable lifestyles and options, and in Part 2 are the **opportunities** for businesses, governments, and consumer groups to make sustainable consumption happen.

The number of consumers in the region who will opt to buy environment-friendly and ethical products over unsustainable choices is increasing. In fact, their willingness to do so is as high, if not higher than their counterparts elsewhere in the world. However, their access to sustainably produced products has been limited – such items are not found in the supermarkets. And even if they were, additional factors are also limiting access such as having to demystify on-pack product labels.

Indrani Thuraisingham

We encourage businesses and governments in Asia to continue creating an environment for sustainable consumption. Consumers need an assurance from producers that when they buy, their purchase will not backfire on them. They need governments to ensure that when they turn over recyclable materials for collection, these are processed for reuse. They want information that they can understand, readily access, and that they can trust. And they want businesses and governments to facilitate changes and signpost areas where consumers can have the most impact.

There is a huge market potential in the region that has not yet been tapped and it lies within the collective power of consumers. Let us empower consumers to lead sustainable lives – they want this but they can not do it on their own.

Indrani Thuraisingham

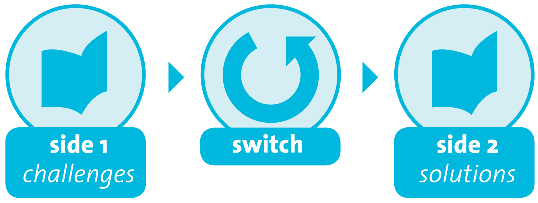
Head, Consumers International
Office for Asia-Pacific and the Middle East

1 Consumers International is an international federation of 234 consumer organisations and agencies in 113 countries worldwide. Through its members and their supporters, Consumers International directly represents tens of millions of consumers across the globe and speaks for consumers everywhere, especially the most disadvantaged.

ABOUT THIS BOOKLET

This booklet:

- provides an overview of sustainable consumption challenges in Asia;
- presents solutions and opportunities to address sustainable consumption challenges in the region and provides examples of how to overcome the challenges;
- could be a source of inspiration for policy-makers and project developers in Europe and Asia who are considering implementing projects in Asia.



The booklet has two sides. One presents the challenges that consumers face in the region when embracing sustainable consumption, particularly regarding the product life-cycle, and the other presents solutions and opportunities. The unique design requires the reader to flip it over to continue reading from the middle – it needs to be 'SWITCHED'. The solutions section of the booklet contains case studies of programmes and projects from the region. These examples showcase 'sustainable consumption' especially in overcoming challenges at decision points – what to buy, how to use, and how to discard. This part is particularly useful for organisations within and outside Asia that are not taking part in the SWITCH-Asia programme as a basis for showing the replication of sustainable consumption approaches.

This side of the booklet deals with the challenges in achieving a shift towards the consumption of ethical products, responsible product use and good end-of-life management including re-use and recycling in Asia. Particularly, it seeks to answer these questions:

- What are the macro consumption trends in the Asia-Pacific region?
- How is the profile of the Asian consumer changing?
- What are the collective challenges in Asia for switching to environment-friendly ways of buying, using and discarding?

TABLE OF CONTENTS

A TALE OF TWO ASIAN CONSUMERS

Mei-Xing gives out a heavy sigh for the girl in the news. She reminds her of her 10-year-old daughter, Jennifer, whom she named after her favourite American actress Jennifer Aniston. But unlike the girl in the news, her daughter is leading a very sheltered life. Based on their maid's schedule, Jennifer should be at home by now and have completed her assignments and showered. While waiting for her dinner, she should have an hour to play on the computer.

It's almost seven in the evening and Mei-Xing has had a long day in the office. Waiting for her husband while enjoying an iced coffee at Starbucks, laptop open and high-speed wi-fi connected. Looking up from her computer she sees a lady in her forties, in Jimmy Choo stiletto shoes, and for the second time this week. She smiles and types 'Jimmy Choo shoes' in her computer. She'd like to get a pair of those the next time she's out. They would look lovely in her growing collection of branded bags and shoes.

Mei-Xing works in a real estate firm from nine in the morning to six in the evening. Her husband is an accountant and together they earn about US$50 000 a year. They live in a fully furnished, three-bedroom condominium in Shanghai, the most populous City in China. They drive a Toyota Corolla, and do their shopping and banking online. They make it a habit to escape to another Asian country once a year for a week or two of sightseeing. They hope to travel to the US and Europe within the next few years and are keen for Jennifer to go to college there.

Jennifer is just like any other kid in her neighbourhood. After class, she attends Spoken American English classes and on weekends, she goes to a gymnastics school. Eating French fries and chicken nuggets at KFC or McDonalds at the weekend is usually the highlight of her week and she can bring home the toy that goes with the kids' meals. She is already beginning to dislike Mondays with their never-ending assignments. She complains about it to her parents but it looks like that is going to be the way it is for the next seven years.

The girl featured in the story on television is Li-Hua. Her family is one of the 21 million poorest people in China that live on less than US$1 000 a year. She is 13-years-old and works in a garment factory for 14 hours a day. Her father is a rickshaw driver and her mother takes care of her five

Consumption patterns are unbalanced – depending on income

other younger siblings at home. Li-Hua's family lives in a mud-brick home of 40 square metres in poor Gansu Province. They have two rooms divided by mud walls plastered with colourful pages cut from magazines. They don't have access to running water nor to electricity. At night, a kerosene lamp on top of a wooden makeshift table sheds light in her mother's room. The light never lasts long, so bedtime comes early, within a couple of hours of sunset. Tomorrow is another long day at work.

Li-Hua and her other siblings don't go to school. Working in the factory takes its toll on her frail, young body but she doesn't think about it and she doesn't complain. After dinner, she is too tired to change her clothes and goes straight to sleep. Every morning as she makes her way to the factory, she thinks about the day that her younger siblings will be old enough to join her at the factory. Together they could bring home more money and perhaps afford to buy enough food for everyone. And maybe, just maybe, one of her siblings would be fortunate enough to go to school and be like their neighbour, a teacher who sends her young son to school and has been able to upgrade their home of mud and stone to a concrete house.

While she is still dreaming, Li-Hua arrives at the factory and becomes just another worker but precise and fast in her tasks to be able to meet her daily quota. Her mother named her Li-Hua, "pearl blossom", but her tired face and worn out dress don't do her name justice.

Mei-Xing, Jennifer and Li-Hua represent the lives of the two major types of consumers in Asia – the growing middle class and their rising global consumption patterns, and the extremely poor who, in 18 Asia Pacific economies, account for more than 10% of the regional population (ADB, 2010a). These three people are at the outermost ends of the scale when it comes to consumption. But their needs have to be balanced, and met, to achieve sustainable consumption in the region.

"Consumers, by definition, include us all. They are the largest economic group, affecting and affected by almost every public and private economic decision. Yet they are the only important group [...] whose views are often not heard. *(Former US President John F. Kennedy, Congressional Speech 15 March 1962)*"

CONSUMERS OF ASIA

In the Asian context, there are about 4 billion consumers, or 61% of the world's current 6.5 billion population. And it is increasing at a rate of 1.2% every year. Almost one-third of the global population is living in China and India alone. Every one of these 4 billion people is an individual consumer. By 2030, Asia is expected to be at the forefront of world-wide consumption, consumer spending is likely to reach $32 trillion and comprise about 43% of worldwide consumption. Consumption through public procurement by administrative governments, also known as 'public' consumers with strong purchasing power, can make a huge of difference if sustainable consumption is 'mainstreamed' in the region. In Asia, public procurement by an administrative government of a country can account for 20-30% of the country's total product and service consumption. Adopting sustainability criteria for products and services purchased by the government, can significantly increase their market share.

"By 2030, Asia is expected to be at the forefront of world-wide consumption"

BOX 1: CONSUMPTION CHALLENGES: COMPARING THE POOR AND THE MIDDLE CLASS IN ASIA

- *Asia is still home to nearly half of the world's absolute poor with per capita incomes of less than US$1.25 a day (ADB, 2011).*
- *By 2030, two-thirds of the global middle class is expected to live in the Asia Pacific (Kharas, 2010).*
- *578 million or two-thirds of undernourished people in the world are in the Asia-Pacific region (FAO, 2010a).*
- *Obesity is rapidly becoming a problem in Asia. The number of obese people in China more than doubled over the last 15 years (UNEP, 2005).*
- *Of the 1.1 billion people who had no access to safe drinking water in 2002, 669 million (almost two-thirds) lived in Asia (UNDP, 2007).*
- *There were 2.6 billion people without access to basic sanitation and as many as 1.9 billion – more than two thirds – are living in Asia (UNDP, 2007).*
- *The ground water reserves in Asia is depleting fast. The water table in many large cities, including Bangkok, Beijing, Chennai, Manila and Shanghai, has dropped by up to 50 metres in recent decades (UNEP, 2005).*
- *Solid waste generation in Asia is expected to rise from 0.76 million tons per day in 2000 to 1.8 million in 2025 despite recycling efforts (UNEP, 2005).*

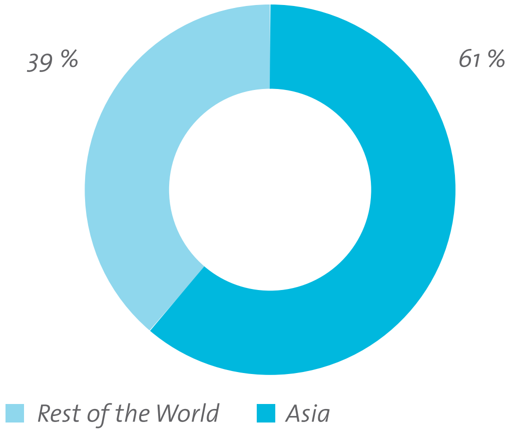
SUSTAINABLE CONSUMPTION – A FORGOTTEN TRADITION IN ASIA?

Any discussion on global consumption trends is likely to include the role of Asia or Asia's influence and contribution. This continent draws its importance not only by being the biggest land mass on the world map but more so as home for the majority of humanity (Figure 1).

Traditionally, sustainable consumption is rooted in an Asian way of life where people follow the principles of a community that has shared use of, and responsibility over, their resources. In many Asian countries, the rural communities still live in communal houses, share common toilets, reuse and carry their own shopping bags, and collect rainwater to be reused for their laundry and general cleaning or watering plants, as things were in the olden days. This lifestyle is diminishing amongst the urban population. In the last few decades, rapid economic growth in the region has pushed up consumption to levels similar to those experienced by developed countries. Spanning more than 40 countries, the economic landscape encompasses the Asian Tigers of Singapore and Hong Kong, resource-rich countries like Indonesia, and the rapidly emerging economic powerhouses of China and India that, by virtue of their size alone, are fuelling both intra-regional and global trade.

Figure 1: Population of Asia and the rest of the World

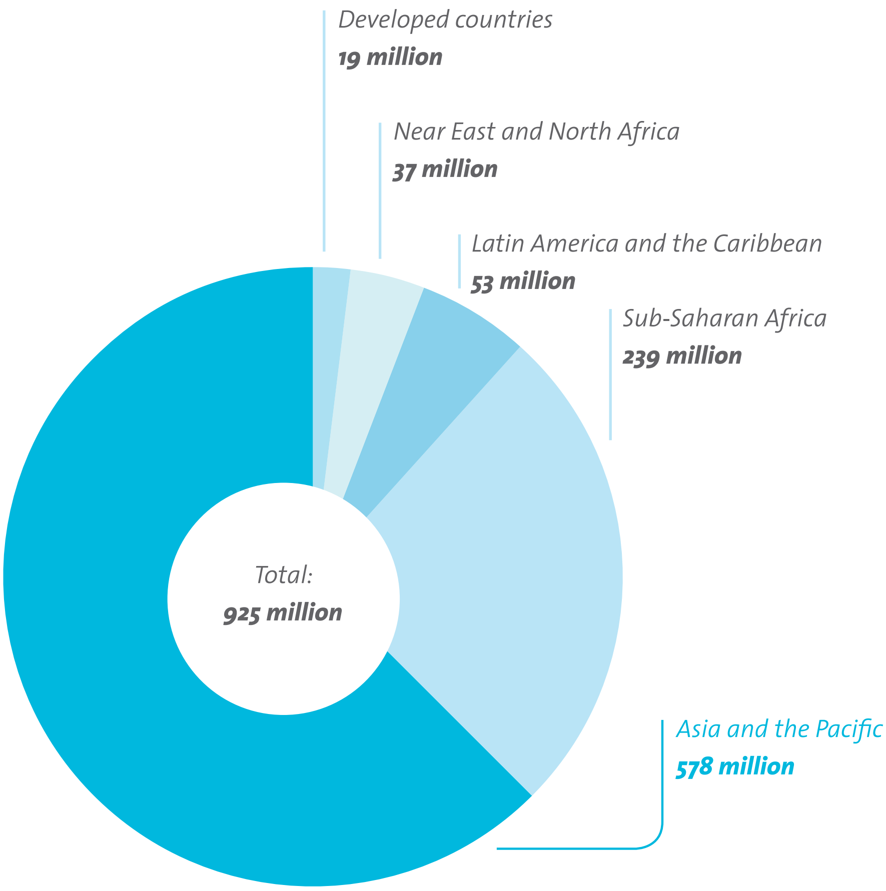
(Source: PRB, 2011 and Ross, 2011)



Asia and the Pacific is a region of contrasts. On the opposite side of socio-economic prosperity are those who still live in poverty and have no access to basic needs and services. This group constitutes two-thirds of Asia's population. A FAO (2010a) report indicated that the number of hungry people in the world was 925 million, of which more than half (578 million) are in the Asia-Pacific (Figure 2). The challenge of sustainable consumption is felt differently here than it is in the West. In Asia it requires a balance in meeting the needs of consumers at the two extreme realities.

Figure 2: Number of Hungry People in the World

(Source: FAO, 2010a)



BOX 2: DEFINING SUSTAINABLE CONSUMPTION

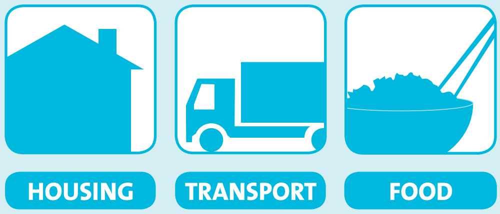
"Sustainable consumption is an umbrella term that brings together a number of key issues, such as meeting needs, enhancing quality of life, improving resource efficiency, minimising waste, taking a lifecycle perspective, and taking the equity dimension into account. Integrating these component parts is the central question of how to provide the same or better services to meet the basic requirements of life and the aspiration for improvement, for both current and future generations, while continually reducing environmental damage and the risk to human health (UNEP, 2001)."

"A practical definition to sustainable lifestyles means rethinking our ways of living, how we buy and how we organise our everyday life. It is also about altering how we socialise, exchange, share, educate and build identities. It means transforming our societies and living in harmony with our natural environment (Swedish Taskforce on Sustainable Lifestyles, 2010)."

MAJOR CONSUMPTION TRENDS IN ASIA

Figure 3: The three major consumption areas

(Source: EC et al., 2006)



AN INCREASING HUNGER FOR RESOURCES

Urbanisation is increasing in the region at a phenomenal rate. By 2030 almost 55% of the population will be living in cities. This will have major implications for Asia's consumption patterns, particularly in terms of the three consumption areas (Figure 3) of housing, transport and food.

Based on the 2006 "EIPRO – Environmental Impact of Products" study in Europe (EC et al., 2006), it can be implied that products from these three areas together can have major environmental impacts on private consumption in Asia as well. Further, consumption in Asia will be driven by a relatively young population. India, for instance, has 50-60% of its population under 35 years of age (Gadhok, 2011), an active consumption age having an increasing disposable income (McKinsey Global Institute, No Year).

The average material consumption per capita in Asia has a sharp increasing trend (Figure 4). The average per capita consumption of the 19 Asian countries increased from 3.7 tonnes per capita in 1985 to 5.5 tonnes in 2005. This number is still far below the global average per capita consumption, which remained relatively stable over the same period at around 8.5 tonnes. On the other hand, a highly differentiated material consumption picture can be observed across Asia. For example, a difference by a factor of 40 can be seen between countries with the highest and lowest per capita material consumption. It can be said that this group of 19 Asia countries represents a wide spectrum of material consumption profiles (SERI, 2010).

Figure 4: Material consumption per capita upper and lower end (1985-2005)

(Source: SERI, 2010)

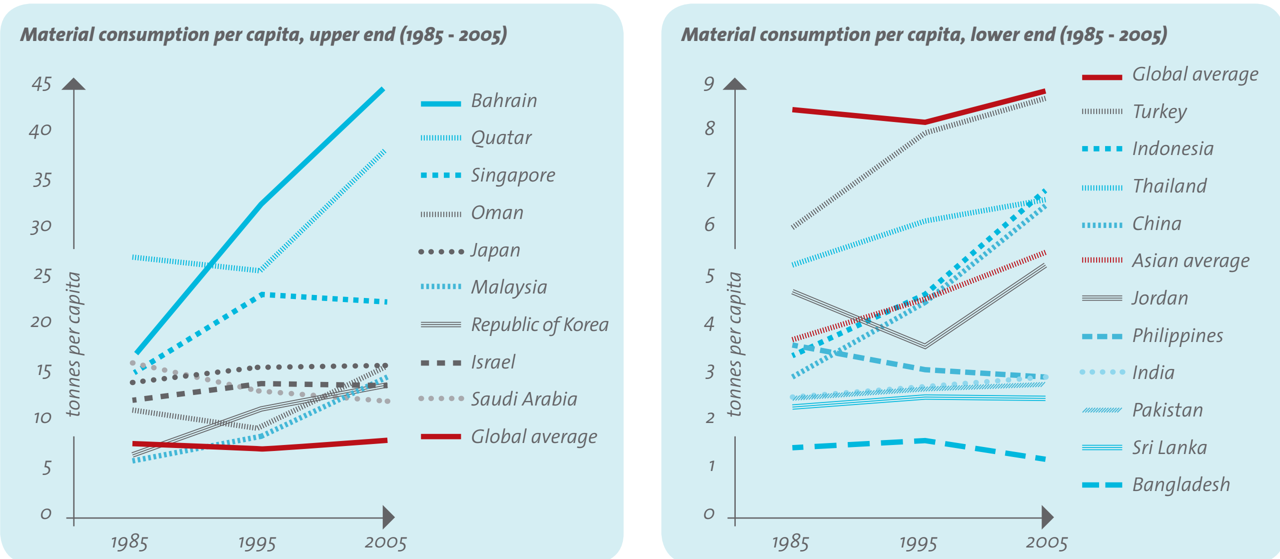


Figure 5: World demand for cereals, 1974, 1997, and 2020

(Source: FAO, 2010b)

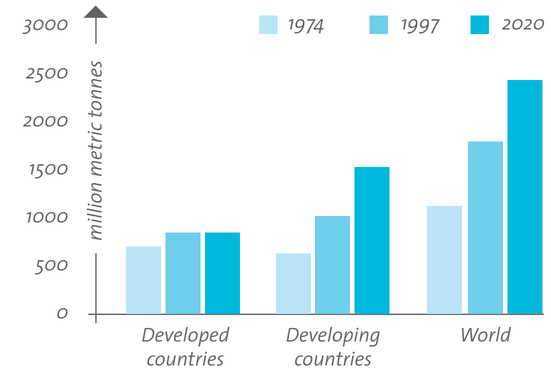
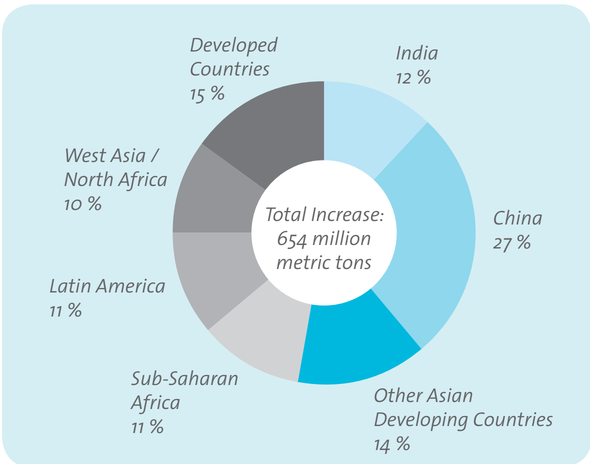


Figure 6: Regional shares of increased cereal demand

(Source: FAO, 2010b)



Energy demand in the region is estimated to grow by 45% between 2006 and 2030, and the region alone will consume more than 37% of the total global electricity, which would mainly be generated from coal power plants (IEA, 2008). 2010 had a pivotal moment in energy history. The country consuming most of the world's energy was no longer the U.S., but China (BP, 2011). Between 2000 and 2010 China's energy consumption more than doubled.

By 2020, developing countries will account for most of the increase in global demand for cereals (Figure 5). The increased use of grains in animal feedstuff also contributes to this trend (FAO, 2010c), as more meat is being consumed by consumers in developing countries having higher incomes to afford more affluent diets. More than half of the increased demand for cereals is projected to be in developing countries in Asia, of which India and China alone will account for 39% of the global demand (Figure 6).

The sales of private cars are growing fast in Asia's newly industrialised countries (Figure 7a). China replaced the U.S. as the world's largest automobile market when vehicle sales skyrocketed in the country in 2009 (BP, 2011). The increased in number of vehicles propels the demand for fuel consumption in bustling Asian cities such as Bangkok, Beijing and Shanghai (Figure 7b).

Figure 7a: Motorisation trends in Asian region

(Source: GFEI & CAI-Asia, 2010)

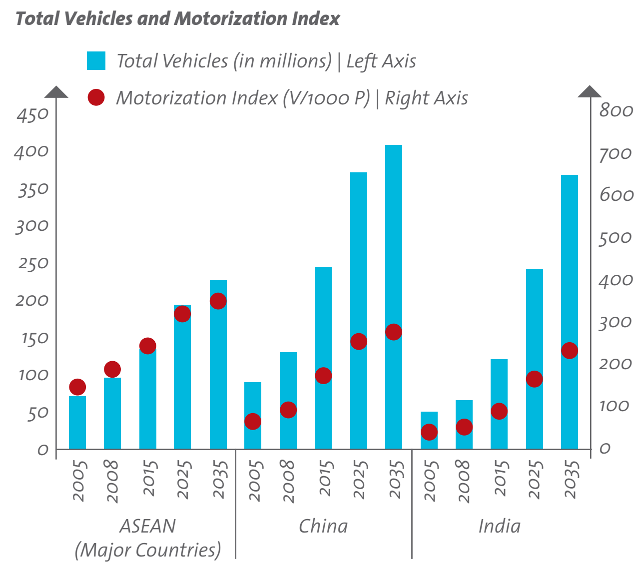
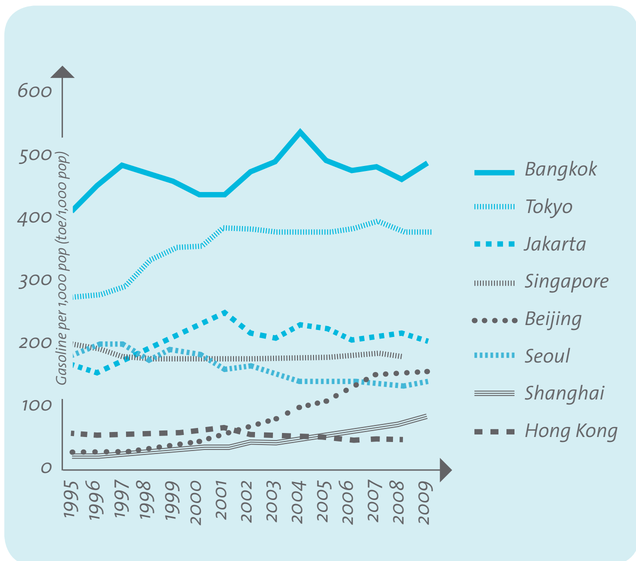


Figure 7b: Per capita gasoline consumption in relation to number of vehicles in Asian cities

(Source: Doi & Asano, 2011)



AN INCREASING MIDDLE CLASS

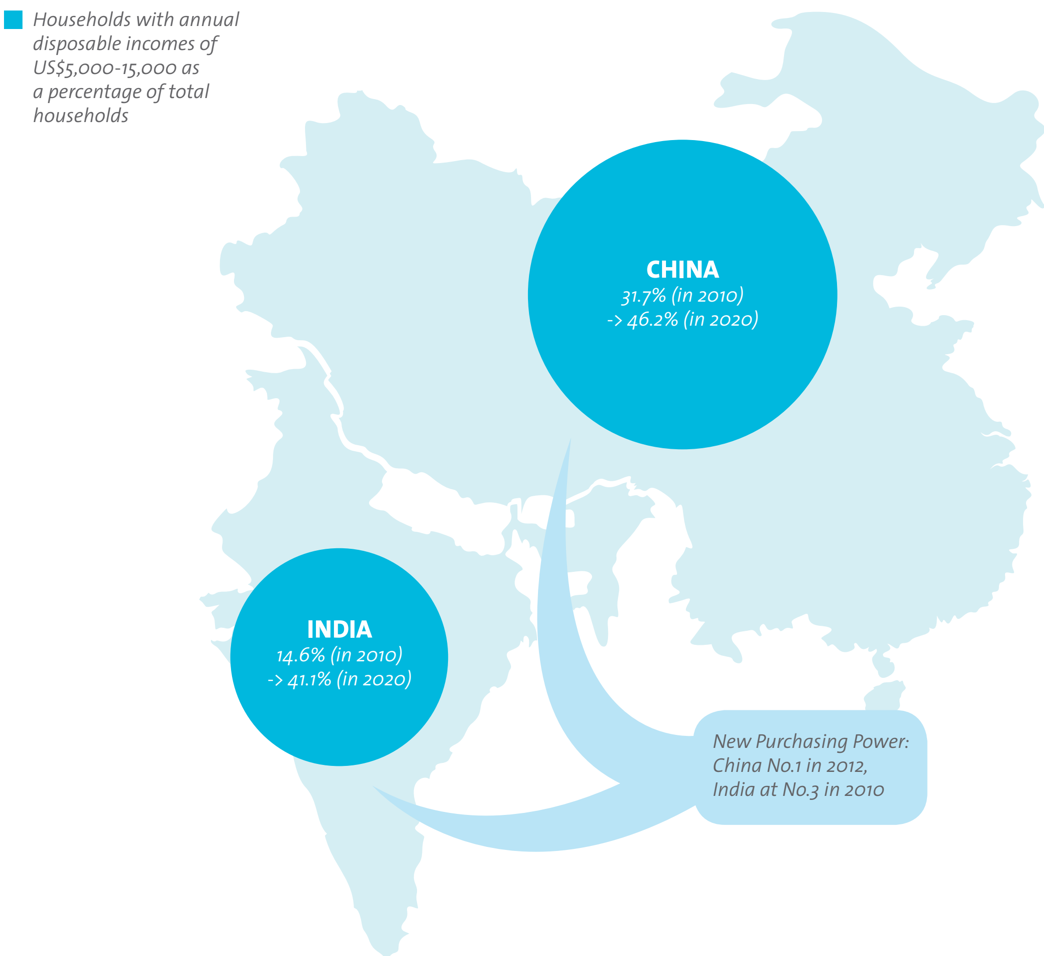
Consumer power is shifting to China and India due to the rise in the middle class purchasing power (EI, 2010). By 2030, Asia is expected to account for two-thirds of the 4.9 billion global middle class with the largest number coming from China and India (Kharas, 2010). This rising middle class was a result of the rapid increase in the general population and therefore also in the workforce. The middle classes usually live in urban areas, are better educated, hold salaried jobs, have fewer children, and have the highest potential to migrate to seek better opportunities.

As early as 2008, there were approximately 1.9 billion people in the region classified as middle class (ADB 2010a). This was 56% of the region's total population, and 21% more than in 1990 (ADB, 2010a). As of 2008, in China alone, there were 220 million middle-income households already (based on the definition of US$2-20 worth of goods consumption per capita per day). This was almost half of Europe's population at that time.

Consumer spending in developing Asia was only slightly affected by the global financial crisis. It reached an estimated $4.3 trillion in annual expenditure in 2008 equivalent to nearly a third of total private consumption of OECD countries. It is expected to rise to $32 trillion, equivalent to 43% of worldwide consumption, by 2030.

Figure 8: Emerging Market Giants: the purchasing power of China and India

(Source: EI, 2010; Heston et al, 2011)



AN INCREASING GLOBAL CONSUMER CLASS

Traditionally, Asians have been savers rather than spenders. However, the consumption patterns of millions of consumers in the newly industrialised countries of the Asia-Pacific region are now converging with those of western industrialised countries – especially among the younger generations. These consumers are referred to as the 'global consumer class'. Worldwide, the global consumer class was about 1.7 billion people in 2004 – of which almost 40% lived in Asia (Worldwatch Institute, 2004).

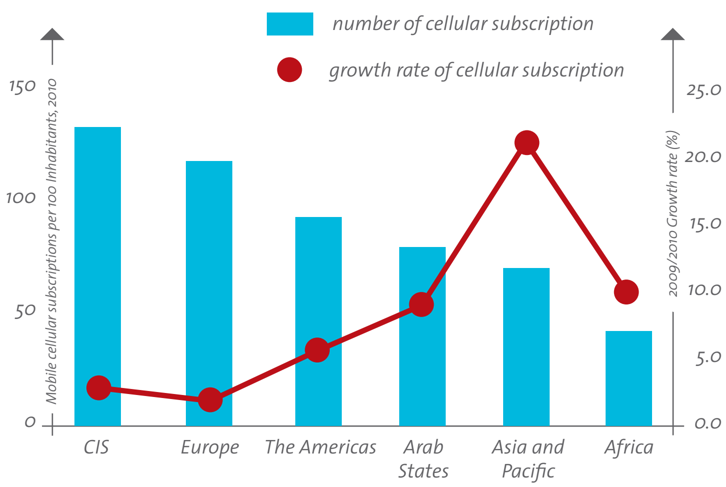
This emerging social group comprises mostly urban consumers who share certain elements of a lifestyle of conspicuous consumption, regardless of cultural background or nationality. They are likely to live in modern apartments equipped with electronic appliances and gadgets, have access to information technologies and global brands, own cars, travel by air, etc. In 2009, it was estimated that mobile subscription in Asia-Pacific surpassed all other regions in the world (Figure 9).

BOX 3: CONSUMPTION OF GLOBAL CONSUMER CLASS IN ASIA

- *In 2008, Chinese consumers purchased about 9.5 million vehicles, including 100 Rolls Royce luxury cars which is equivalent to 10% of the company's global sales (King et al., No Year).*
- *China and India are now the world's first and second largest markets for mobile phones (ADB, 2010b).*
- *China has approximately 600 million cellphone subscribers, while there are about 550 million in India (Bloomberg, 2005).*

Figure 9: Mobile subscriptions across regions. *In 2009/2010 mobile subscriptions in Asia-Pacific increased rapidly surpassing all other regions globally*

(Source: ITU, 2010)



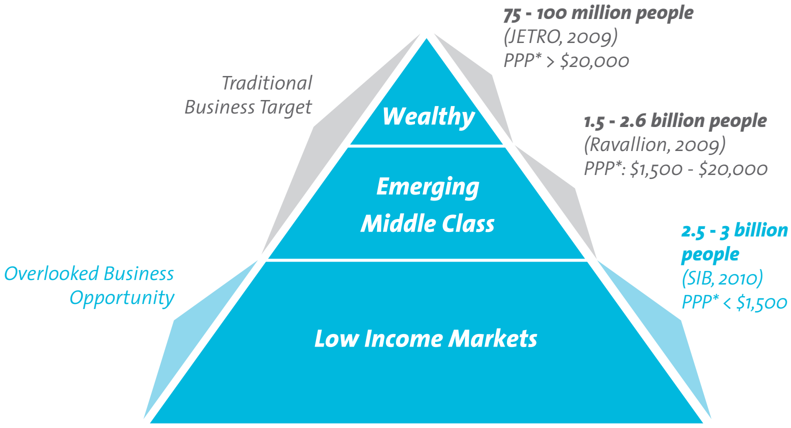
INCREASING BUT UNMET EXPECTATIONS OF LOW-INCOME CONSUMERS

Despite Asia's economic growth over the last two decades, the region remains home to approximately two-thirds of the world's poor (UNESCAP et al., 2010). The progress achieved in the region continues to exclude the vast majority of its poor and undernourished. It is paradoxical that despite its abundant resources and rapid resource consumption, the region is still struggling to provide access to basic needs to the poor or low-income group, who live at the edge of survival.

Yet in Asia, it is the power of numbers that counts more than anything else. Low-income consumers in emerging markets, a base often referred to as the 'bottom of the economic pyramid' (BOP) accounts for the largest percentage of purchasing power in the world. In 2004, the aggregate buying power of the BOP was over $14 trillion – larger than that of Germany, France, Italy, Japan and the United Kingdom combined (RTEC 2006). It might be interesting for businesses to see that, globally, there is fortune at the bottom of the pyramid particularly in four main areas: food ($2 895 billion), energy ($433

***Figure 10: Global change in economic pyramid** shows a vast number of aspiring consumers among the world's low-income consumers*

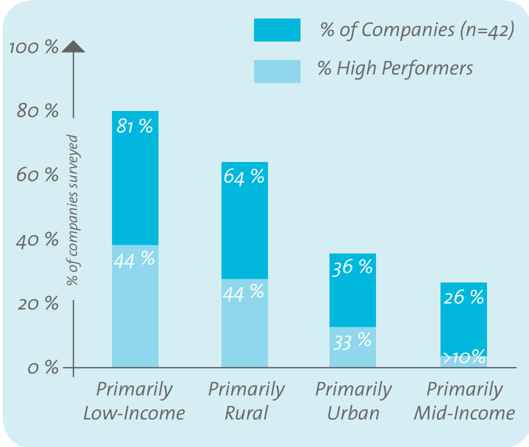
(Source: Modified based on ADB 2010c and Prahalad & Hart, 2002)



* PPP: Purchasing Power Parity in U.S. Dollars

Figure 11: Business Performance at the Bottom of the Pyramid

(Source: Krauel & Montgomery, 2010)

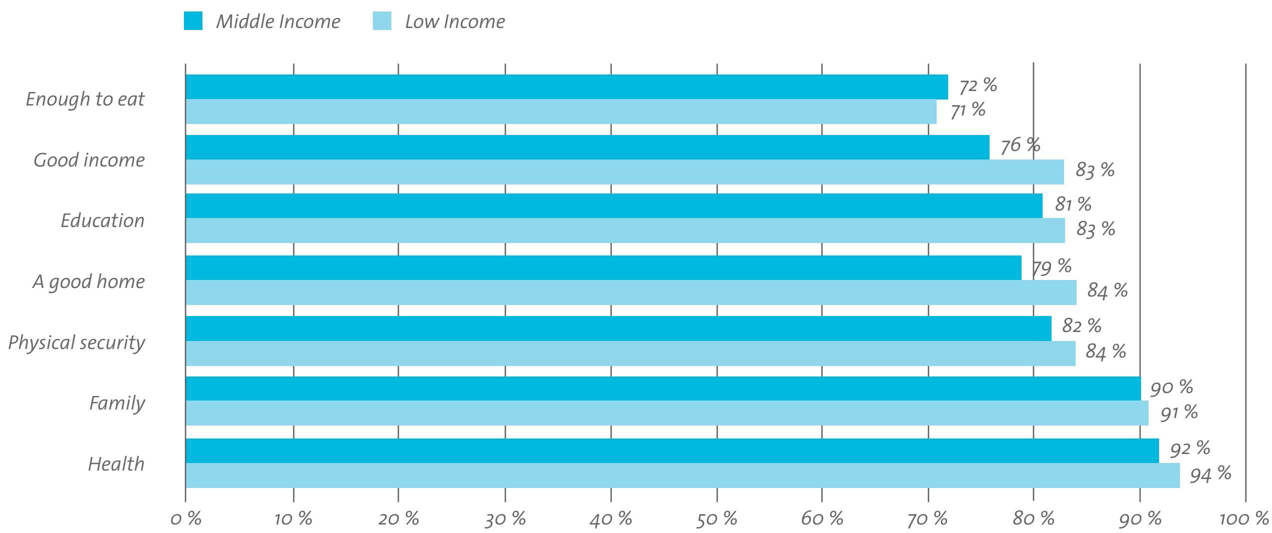


billion), housing ($332 billion) and transportation ($179 billion) (World Resources Institute, 2007). Nearly half of the companies that target low-income customers focused on rural markets are High Performers, meeting or beating at least 75% of their sales targets (Figure 11). Grameen Bank of Bangladesh is an example of a successful business model that captures the purchasing power of the BOP (SIB, 2010).

In general, the low-income consumers in emerging markets are best described as 'low-income, high-expectation' as many of their life priorities, values and brand perceptions are similar to the middle class. Health, family and physical security are the top three most important things in life for more than 80% of low- and middle-income consumers, followed by a good home, an education and a good income (Figure 12).

***Figure 12: Life Priorities** shows that low-income consumers share as many priorities, values and brand perceptions similar to middle class consumers*

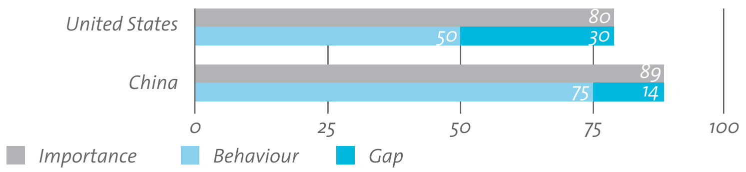
(Source: Svnovate, 2006)



SUSTAINABLE CONSUMPTION CHALLENGES IN THE REGION

Figure 13: ***The Green Gap*** *– Comparative scenario of consumers' appreciation of sustainable lifestyle and actual behaviour in developed and developing countries*

(Source: Bennett & Williams, 2011)



Elsewhere in the world, as in Asia, development has now become synonymous with increasing consumption. What if the bulging middle class in the region continues to aspire to move along the same path of consumption as their counterparts do in developed nations? And what if government and corporations embark on resource-intensive production to address the increasing unmet needs of poor consumers? It will take three more planets to cater to this scale of consumption. But the hard truth is that we only have one planet and the feasible way it can continue to support us is through sustainable production and consumption.

Sustainable consumption in the region has not taken off on a par with initiatives supporting sustainable production. However, there is a growing interest among consumers to go green. Among Chinese professionals, although climate change isn't top of their concerns, the percentage of those who are concerned about it is in line with other nations: 26% in China compared to 33% in the UK (Futerra, 2009). Latest development indicate that consumer behaviour is different to consumer attitude. In China, 89% is saying to buy green whereas only 75% actually buy green. In the US the gap is almost double (Figure 13). This suggests that consumers in Asia have evolved to appreciate green living, probably, better than their counterparts in developed countries. As indicated in Figure 13, consumers' good intention and appreciation may not translate into actual actions or behaviour. What are the barriers that prevent this from happening? What are the factors that can make a difference for them to switch to more sustainable consumer behaviour?

This section presents the challenges for consumers in the region, particularly relating to how to take 'product decisions': what to buy, how to use, and how to discard. These challenges are identified via literature research including surveys and selected following discussions with experts in the region.

CONSUMER CHALLENGES IN ASIA: DECISION-MAKING ISSUES

What to buy: related challenges

- *Limited access to sustainably produced products and services*
- *Lack of transparency and credibility of product preformance*

How to use: related challenges

- *Consumers still in the dark about low-impact product use*
- *Limited after sales support*

How to discard: related challenges

- *Lack of disposal facilities in Asia*
- *Limited take-back schemes and facilities*

THE CHALLENGE – WHAT TO BUY

Consumers are faced with two common challenges at the 'what-to-buy' phase:

- *Limited access to sustainable products and services*
- *Low confidence due to lack of transparency and credibility on the products or services*

LIMITED ACCESS TO SUSTAINABLE PRODUCTS AND SERVICES

Apart from a lack of knowledge about green products, there are two other major factors that limit consumers' access to sustainable products – price and availability (CI, 2010). Even though many fair trade products are produced in developing countries, their presence on the home market is scarce. Consumers in developing countries either have no access to fair trade products or, they have to pay a high premium.

Figure 14 shows that price topped all other factors believed to be obstacles to purchasing fairly traded products. The Figure shows that price does not outweigh the perceived added-value of ethical products.

LACK OF TRANSPARENCY AND CREDIBILITY OF PRODUCT PERFORMANCE

Consumers International characterises consumers as 'sceptical' or 'discriminating' when they do not understand 'on-pack' labels. Misleading information or descriptions given is another great challenge for consumers. Such labels make many green claims but there is no consensus as to what constitutes a 'reliable' claim. Consumers are confused about ethical claims which is partly a reflection of the lack of agreement relating to good practice in this area.

A worldwide online survey looked at consumer perception of green claims and found that consumers do not automatically accept those made in advertisements (Burst Media, 2008).

BOX 4: DEFINING SUSTAINABLE PRODUCTS OR SERVICES

In this booklet, sustainable products or services are interchangeably described as green or ethical, which implies that they are produced in ethically, ecologically and economically sound manners and fairly traded to benefit and protect producers, consumers and the environment. Most significant environmental impacts should be addressed in each part of the product's or service's life cycle. The term Fair trade products generally means that the products have been produced according to fair trade standards and principles practiced by the various fair trade organisations or certification bodies. Sustainable products or services have also high level of functionality and respond to needs. They do not lead to conspicuous consumption.

Figure 14: Obstacles to purchasing fair trade products

(Source: CI, 2010)

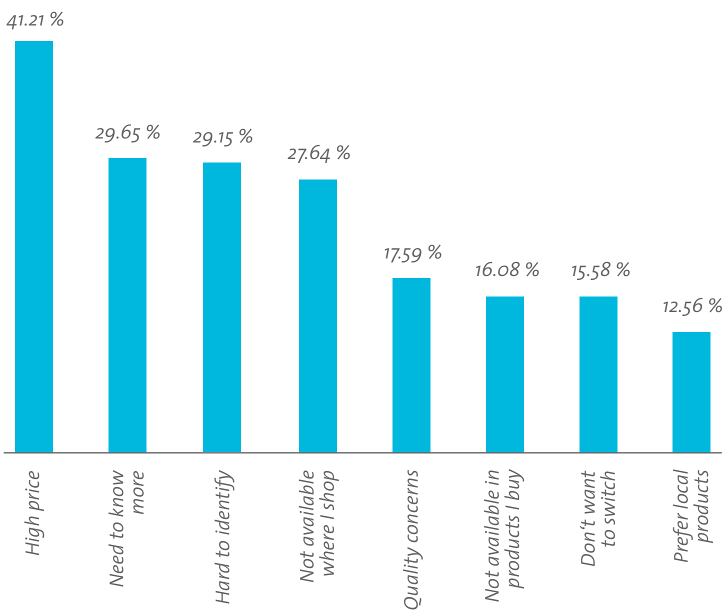


Figure 15: Respondents' reactions to 'green' claims made in advertising

(Source: Burst Media, 2008)

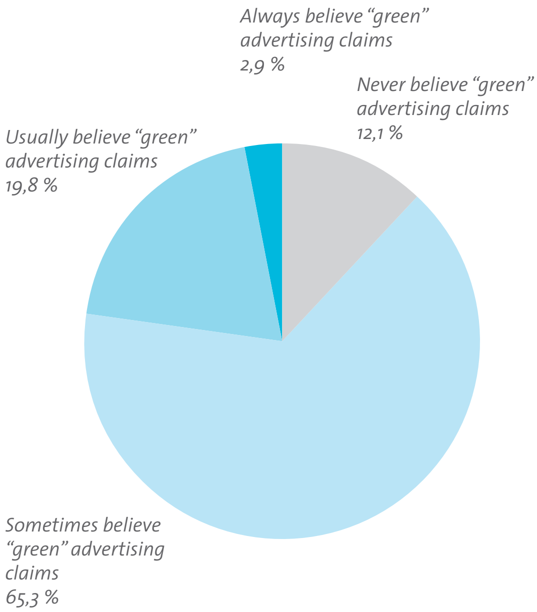


Table 1: Eco-labels by region and sector

(Source: www.ecolabeling.org)

Region	Number
Europe	96
North America	78
Asia	28
Oceania	17
Latin America	6
Africa	1
Global	**51**

Sector	Number
Food	74
Retail Goods	72
Buildings	45
Textiles	38
Electronics	35
Forest Products	35
Energy	28
Tourism	28
Carbon	12
Other	66

One in five respondents (22.7%) said that they "usually" or "always" believe green claims, while 12.1% said they never believe green claims (Figure 15). A national survey on 1 143 consumers in Indonesia shows that one in every two respondents does not believe green claims of companies (Catalyze et al., 2011)

However, eco-labels seem to play a key role in creating trust. For example, almost 80% of the respondents of a market survey conducted in India for formulating effective marketing strategies for eco-friendly textile products said that an eco-label was the most important information for respondents to decide on the eco-friendliness of a product (Traidcraft et al., 2010). Over 340 eco-labels in 42 countries were known globally by November 2009 (WRI and BRI, 2010) – a dauntingly high number. Table 1 shows the total number of labels that a consumer might be exposed to, broken down by region and sector. Figure 16 shows some of the green claims in advertising in Asia.

More and more businesses, including grocery retailers, have developed their own green labels. The largest UK supermarket chain, TESCO, offers its very own fairly traded products in its operations in China, Malaysia, South Korea, and Thailand. Other brands use endorsements from non-certifying third parties, or on-pack claims, to convey sustainability attributes. With all these developments, there is a need for a common approach to measure the quality of green claims (CI, 2010).

Figure 16: Members of 'Green Ecolabelling' in Asia which consumers are more likely to encounter

(Source: Green Ecolabelling Network, http://globalecolabelling.net)

THE CHALLENGE – HOW TO USE

Considerable amount of environmental impact can occur during the 'use' phase of consumer goods. Two identified challenges for consumers to use products or services are due to:

- *Lack of knowledge on low-impact product use*
- *Limited access to after sales support*

CONSUMERS STILL IN THE DARK ABOUT LOW-IMPACT PRODUCT USE

Most consumers are not aware of this because there is not much information available for them about the concept of low-impact product use, nor of its advantages. This is the case not just in Asia but elsewhere in the world.

For instance, only 16% of the overall CO_2 emissions over the lifecycle of an average car occur in the production phase and over 80% occur in the use phase – this is the hidden environmental cost of driving. Car manufacturers are presently working to reduce the amount of energy and water used during production. Consumers have a lot of catching up to do in order to understand their impact in the use phase. Many consumers are still not aware of low-impact lifestyles and product usage such as collaborative consumption, valued experiences instead of ownership, peer to peer sharing, or collectively thoughtful consumption (WEF, 2011). Even though many smart products, smart appliances and energy management systems have been introduced in Asian markets, consumers are limited in their knowledge to understand their role to manage impacts through proper and effective usage.

LIMITED AFTER SALES SUPPORT

Regardless of how the goods or services are acquired (such as owned, rented, or contracted), after sales support including part replacements, maintenance, or care are important aspects for consumers. After sale support services can impact on the business overall sale performance and future sales. This can help ensure sustainable, effective and efficient usage that can have impact on end-of-life phase. Household appliances or computers, for instance, demand for accessible after sales support. Of late, an increased consumerism of 'use and throw' can be seen as an easy way out for not having to deal with the hassle and frustration that can be attributed to poor or the absence of after sales support. Incidentally, repairs and servicing of products for reuse have become unfashionable, and are perceived to be time consuming.

BOX 5: BOTTLE BULBS TO PROVIDE LIGHT TO THE POOR – AN EXAMPLE OF LOW-IMPACT PRODUCT USE IN POOR COMMUNITIES AMONGST THE PHILIPPINES

Families in an informal settlement in the Baseco area of Manila, Philippines, have bid farewell to candle-lit dinners and nights in total darkness. Their mayor painted a bright green future for them with the launching of a community-based solar lighting project that benefited at least 120 makeshift homes.

Under the system, each home will be installed with a solar bulb made from a two-litre plastic bottle filled with a solution of water, salt and chlorine that gathers and amplifies sunlight. The bottle acts as a lens and provides a tremendous amount of interior light equivalent to 55 watts during daytime, so that there is no more need to use electricity. The project was funded by the local government at an affordable cost amounting to less than US$5 per household.

With this in place, residents can now do away with using candles or kerosene lamps which only poses danger and the possibility of causing fire. The use of solar bulbs also prevent the occurrence of accidents brought about by pilferage of electric power.

(Source: MB, 2011)

(Photos: A liter of Light Team)

THE CHALLENGE – HOW TO DISCARD

Challenges at the 'disposal' phase for consumers in Asia are commonly associated with:

- *Inadequate disposal facilities*
- *Limited take-back programmes or initiatives*

LACK OF DISPOSAL FACILITIES IN ASIA

There are few waste management facilities in the region. Many countries in Asia are in the early stages of industrialisation and they lack the capital needed to invest in appropriate waste technologies. Most local governments allocate a huge part of the budget annually to manage solid waste but can still hardly keep up with the rate at which garbage is generated. Based on estimates, domestic waste generation in Asia is 1 million tons per day – that is about 1 billion kilos of garbage added every day! Urban areas in Asia spend US$25 million per year on solid-waste management, and this figure will increase to US$47 million per year (APO, 2007).

Urban consumers are less likely to have access to recycling or even final disposal facilities. It is the informal sector, which usually takes on the recovery, and recycling activities. In India, 95% of the actual recycling is done by the informal sector in primitive and highly polluting backyard operations that are very labour-intensive and unsafe to both workers and the environment (WEEE Recycle, 2010). The most common method of managing waste in the region is open dumping, as is practiced in Sri Lanka, Thailand, India and China. But this carries severe environmental problems affecting health and causing serious economic losses.

BOX 6: PRODUCT TAKE-BACK

Product take-back is a form of 'extended producer responsibility' that requires companies to take back their products after the consumer is ready to replace them or throw them away. Starting in Germany, the programme quickly spread to the rest of the world and covered a growing range of consumer products and electronics such as TVs, refrigerators, washing machines, computers, mobile phones, printers, digital cameras and batteries.

LIMITED TAKE-BACK SCHEMES AND FACILITIES

In Asia, take-back mechanisms are few. In most cases, consumers complain about the lack of curbside collection, poorly accessible collection centres, limited information on what to do when the product becomes obsolete, and no incentives for structural change.

Producer take-back mechanisms and regulations, also known as 'extended producer responsibility', started in the region in the early 1990s. These were prompted mainly by limited landfill space. Japan started implementing take-back systems as projections for landfill capacity were zero for 2008. India also introduces the legislation for take back of lead-acid batteries - The Batteries (Management & Handling) Rules 2010, but faced with difficulty in implementation. Today, there are several countries in the region that have laws requiring companies to take back the packaging materials associated with their products, and laws on e-waste management (Table 2).

By giving responsibility to the manufacturers to collect and pay for the cost of recycling, they are pushed to design products that are easier to de-manufacture (easier to take apart), and are less harmful to the environment. However, this is a huge task because producers also face major challenges such as compliance to innumerable and varying regional and global regulations and huge funding requirements for new technologies. There is no doubt, therefore, that collective action from the government and consumers is needed to make it work. The other side of this booklet shows some of the solutions how actors can do their part.

Table 2: E-waste management regulations in Asia

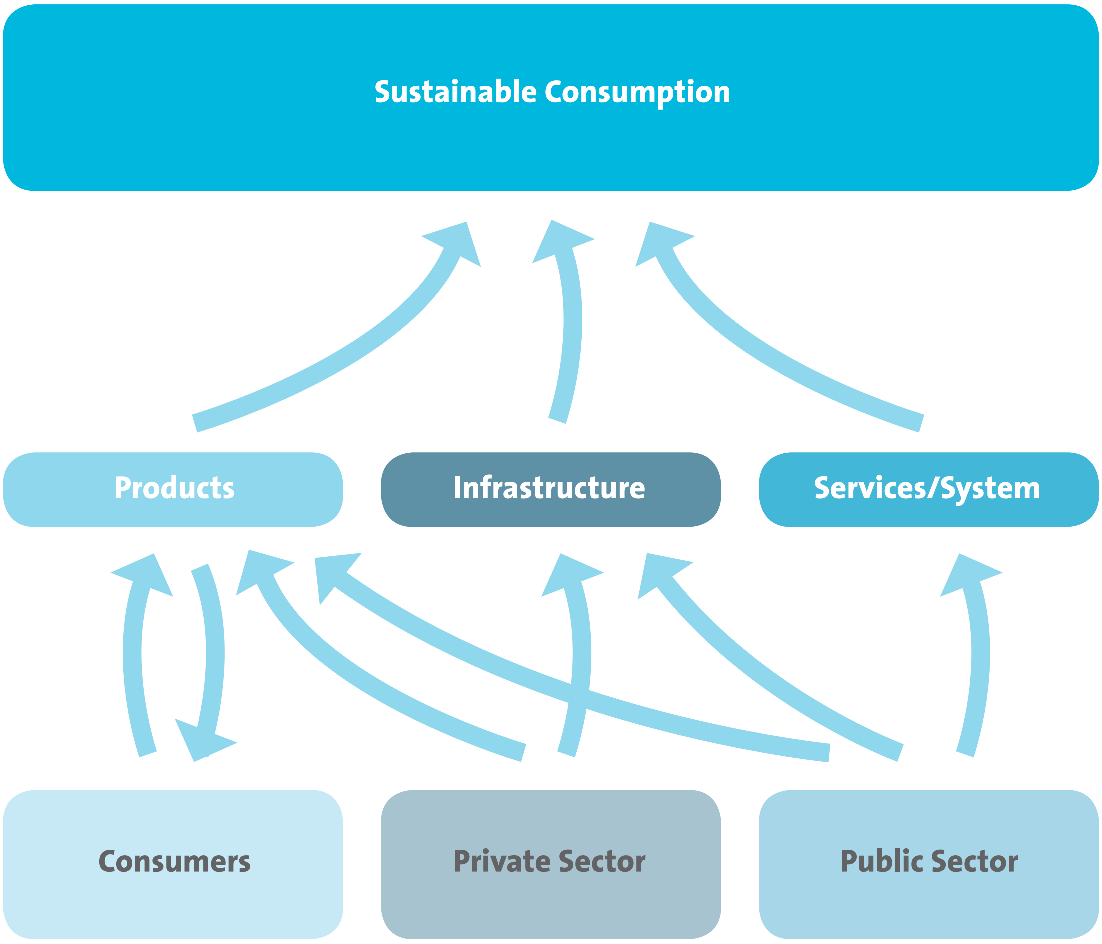
Country	Items	Regulations
China	*TV sets, refrigerators, washing machines, air conditioners, personal computers*	*Management of Recycling of Home Appliances and Electronic Equipment regulation, 2004*
India	*Electrical and electronic equipment or components*	*e-waste (Management and Handling) Rules, 2011* *The Batteries (Management & Handling) Rules, 2010*
Japan	*TV sets, refrigerators, washing machines, air conditioners*	*Home Appliances Recycling Law, 1998*
Korea	*Personal computers (both for business and household use), TV sets, refrigerators, washing machines, audio equipment, mobile phones*	*Law for Promotion of Effective Utilization of Resources (2001 for buiness PCs a nd 2003 for household PCs) Extended Producers Responsibility in Recycling Law, 2003*
Malaysia	*Discarded or off-specification batteries containing lead, mercury, nickel, or lithium from battery manufacturing plants are Scheduled Waste S271*	*No regulation for E-waste.* *In Environmental Quality Regulations, 1989*
Taiwan	*Waste home appliances and IT products*	*Waste Disposal Act (amended 1998)*
Philippines	*Consumer electronics (radios, stereos, TV sets, etc) white goods (stoves, refrigerators, dishwashers, washing machines, dryers, etc)*	*Ecological Solid Waste Management Act of 2000*
Thailand	*Unknown*	*National Strategic Plan for the environmentally sound management of E-waste*

SUSTAINABLE CONSUMPTION – A CONCERN FOR ALL

A whole-system approach involving all three major actors of an economy – government, consumers and producers – is required to move society towards sustainable consumption. Governments and businesses must actively promote such a system but there remain challenges in creating an enabling environment.

Figure 17: Main fields of responsibilities in sustainable consumption

(Source: CI, 2010)



THE BUSINESS PERSPECTIVE

BOX 7: PANASONIC GREEN INITIATIVE

One notable example is Panasonic, a multinational company producing consumer electronics. In 2007 it started to introduce only "green" products and in 2010, it improved its factories' environmental performance beyond Government standards.

The business landscape in Asia has evolved. The trend of greening supply chains is slowly transforming businesses in the region. More and more multinational companies, such as Unilever, Procter & Gamble, and Nestlé as well as local companies, are expanding their ethical product lines. They are taking on the 'sustainability journey' in the belief that sustainable consumption is the new trade frontier. In China, corporate social responsibility is growing at an unprecedented speed. According to the Global Reporting Initiative (GRI), a network-based organisation that pioneered the most widely used sustainability reporting framework, the participation of Asian companies in this initiative has grown tremendously from only one in 1999 to almost 30% of the global total in 2008 (IGES, 2010).

With prominent influence of micro enterprises and SMEs in Asia (and the Pacific), contributing to more than 90% of market outputs (EIU, 2010), the road to sustainability is not a walk in the park for the region though. Micro enterprises and SMEs potentially have limited capacity to understand market opportunities and to overcome the cost of manufacturing and delivering green products. Businesses in the region face challenges that run through the entire product lifecycle. First, companies often find that the consumer base for ethical products is limited to a niche market, often young professionals. The growing interest for these products has not yet translated into actual purchases. Non-availability and high prices, followed by poor awareness, are the most frequently cited reasons among consumers for not buying eco-friendly products (AIACWA, 2010). Second, SMEs have limited capacity to understand market trends and to overcome the cost of manufacturing and delivering green products.

Companies also struggle to comply with national environmental performance standards not only due to lack of information about laws and clean technologies, but also because of corruption and inadequate laboratory facilities. This is especially the case among SMEs that dominate the business community in Asia, as in all parts of the world. Their operations suffer from inadequate knowledge about sustainable production, insufficient funding to replace outdated and low-efficiency technology, and limited training for staff and management. To date, SMEs represent the bulk of the corporate sector and account for as much as 99% of all firms in countries such as Cambodia, the Lao People's Democratic Republic, Nepal, and Japan.

BOX 8: GOOD PROGRESS IN SUSTAINABLE PRODUCTION BUT ASIA LAGGING IN SUSTAINABLE CONSUMPTION

At the 19th Consumers International World Congress, Richard Welford, founder and chairman of CSR Asia, elaborated on the fact that corporate social responsibility is not about public relations. It is about what companies do with their profits, how they choose what and where to invest, and how this impacts on communities. Regarding sustainable consumption, Mr Welford said that we look at production as the principal contributing factor to climate change but have failed to realise that the bulk of energy consumption is used during consumption. There is a need therefore for education and empowerment of consumers to know this. But (at this point) they need companies to make this happen.

(Source: Consumers International http://consumersinternational.blogspot.com/2011/05/summary-session-3b-introduction-to.html)

CHALLENGES FOR POLICY-MAKERS

Motivating consumers to embrace a more climate conscious lifestyle is easier said than done. It requires an understanding of the challenges that consumers face when they make product-purchasing decisions, and changing complex behaviours and habits. Social norms, cultural traditions, and many other habits are some of the factors that influence consumer behavior and shape everyday consumption (Mont & Power 2010). Obviously, it takes more than just traditional information campaigns and policy instruments to discourage unsustainable lifestyles. Part 2 of this booklet discusses an interplay of potential interventions to motivate sustainable consumption.

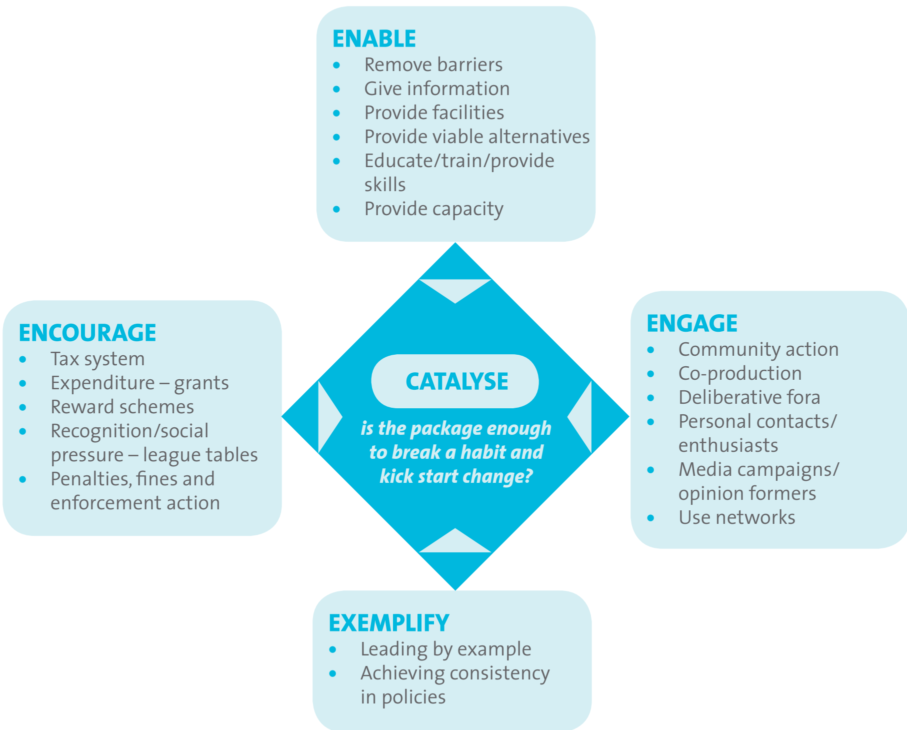
One feasible way to promote sustainable consumption is for governments to utilise the full range of levers at their disposal as illustrated by 4Es model of behaviour change: engaging, exemplifying, enabling and encouraging (see Figure 18) (SDC, 2010). A number of countries in the region are leading by example such as Japan, Korea, Malaysia, Taiwan, and Thailand, which have already passed green procurement legislation. In many countries, governmental procurement represents as much as 20-30% of national products and services. In smaller countries, the government is the most important consumer, and the public sector is therefore in a position to negotiate a good price and good quality, and can also push companies to adopt sustainable production methods, life-cycle approaches and sustainability strategies for their entire production cycles. This gives the government an upper hand to encourage sustainable consumption by exemplifying green purchasing.

To date, some of the underlying factors that hinder other governments in Asia from creating an enabling environment for sustainable consumption include:

- insufficient knowledge about sustainable consumption;
- low-level of political will to pursue sustainable consumption;
- limited financial resources for infrastructure and law enforcement; and
- inadequate existing fiscal instruments to promote sustainable consumption and production.

Figure 18: 4Es Model 'Enabling Sustainable Lives'

(Source: SDC, 2010)



REFERENCES
PART 1

ADB (2010a). Millennium Development Goals: Key Indicators for Asia and the Pacific 2010. Asian Development Bank. *http://www.adb.org/Documents/Books/Key_Indicators/2010/pdf/Goal-01.pdf*

ADB (2010b). The Future of Growth in Asia: Asian Development Bank Outlook Update 2010. Asian Development Bank. *http://www.adb.org/Documents/Books/ADO/2010/Update/ado2010-update-part2.pdf*

ADB (2010c). Key Indicators for Asia and the Pacific 2010: The Rise of Asia's Middle Class. Part 1 (Special Chapter). Asian Development Bank. *http://www.adb.org/Documents/books/key_indicators/2010/Part-I.asp*

ADB (2011). Asia 2050: Realizing the Asian Century. Asian Development Bank. *http://www.adb.org/documents/reports/asia-2050/asia-2050.pdf*

AIACWA (2010). Sustainable Textiles for Sustainable Development Market Research Study-India. All India Artisans and Craftworkers Welfare Association.

APO (2007). Solid Waste Management: Issues and Challenges in Asia. Report of the APO Survey on Solid-Waste Management 2004–05. Asian Productivity Organization.

BP (2011). China is World's Largest Energy Consumer. BP 's Statistical Review of World Energy, 2011. *http://www.usfunds.com/investor-resources/frank-talk/?C=269*

Bennett, Graceann and Williams, Freya (2011). Mainstream Green: Moving Sustainability from Niche to Normal. The Red Papers (4). Ogilvy and Mathers.

Bloomberg (2005). A New World Economy. The balance of power will shift to the East as China and India evolve. Bloomberg Businessweek. *http://www.businessweek.com/magazine/content/05_34/b3948401.htms*

Burst Media (2008). Consumers Recall Green Ads. News@Burst. *www.burstmedia.com/about/news_display.asp?id=28*

Catalyze, ActivDesign and Komunigrafik (2011). Emerging Opportunities for Green Products in Indonesia: A National Survey of Consumer Attitudes. Catalyze Sustainability Communications, ActivDesign and Komunigrafik.

CI (2010). Ethical Trade Fact Finding Process, 2010. Consumers International.

CI (2011). Summary: session 3b - An introduction to sustainable consumption in Asia Pacific. Consumers International. *http://consumersinternational.blogspot.com/2011/05/summary-session-3b-introduction-to.html*

Doi, Naoko and Asano, Kota (2011). Understanding the factors affecting the urban transport energy in Asian cities – pathways of urban transport indicators from 1995 to 2009. Environmental Economics, Volume 2, Issue 2, 2011. *http://www.businessperspectives.org/journals_free/ee/2011/ee_2011_2_Doi.pdf*

EC, IPTS and ESTO (2006). EIPRO–Environmental Impact of Products: Analysis of the life cycle environmental impacts related to the final consumption of the EU-25. (Main report). European Commission (EC), Institute for Prospective Technological Studies (IPTS) and European Science and Technology Observatory (ESTO). *http://ec.europa.eu/environment/ipp/pdf/eipro_report.pdf*

EI (2010). Emerging Focus: Rising middle class in emerging markets. Euromonitor International. *http://blog.euromonitor.com/2010/03/emergingfocus-rising-middle-class-in-emerging-markets.html*

EIU (2010). Towards the Recovery: Challenges and Opportunities Facing Asia's SME's. Economist Intelligence Unit (EIU). *http://graphics.eiu.com/upload/FedEx_main_Jan12_Eng_lowres.pdf*

FAO (2010a). Facts on Hunger. Food and Agriculture Organization of the United Nations. *http://www.fao.org/hunger/faqs-on-hunger/en/*

FAO (2010b). The World to 2020: Baseline Scenario. Food and Agriculture Organization of the United Nations. *http://www.greenstone.org/greenstone3/nzdl?a=d&d=HASH011a367bb7d712b6c176f035.5&c=fnl2.2&sib=1&dt=&ec=&et=&p.a=b&p.s=ClassifierBrowse&p.sa=*

FAO (2010c). Food Outlook: Global Market Analysis. Food and Agriculture Organization of the United Nations. *http://www.fao.org/docrep/012/ak349e/ak349e00.pdf*

Futerra (2009). Chinese Climate Behaviours: A blueprint for change. Futerra Sustainability Communications.

Gadhok, Taranjot Kaur (2011). GIS in Urban Design & Planning – Potential in RAY. *www.geospatialworldforum.org/2011/proceeding/pdf/Taranjot.pps*

GEN (2011). Green Ecolabelling Network *http://globalecolabelling.net*

GFEI and CAI-Asia (2010). Improving Vehicle Fuel Economy in the ASEAN. Global Fuel Economy Initiative (GFEI) and Clean Air Initiative for Asian Cities (CAI-Asia) Center.

Heston, Alan, Summers, Robert and Aten, Bettina (2011). Penn World Table Version 7.0, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania. *http://nextbigfuture.com/2011/03/new-purchasing-power-gdp-analysis-china.html*

IEA (2008). World Energy Outlook 2008 - International Energy Agency (IEA) *www.iea.org/textbase/nppdf/free/2008/weo2008.pdf*

IGES (2010). Trend of Companies Participating in GRI in Selected Asian Countries and the Rest of the World. Initial Graphics Exchange Specification. *www.globalreporting.org.*

ITU (2010). The World in 2010: ICT Facts and Figures. International Telecommunication Union. *www.itu.int/net/itunews/issues/2010/10/04.aspx*

JETRO. (2009). Bottom of Pyramid. Japan External Trade Organization (JETRO). *http://www.ide.go.jp/English/Data/Africa_file/Manualreport/pdf/bop_all.pdf*

King, Peter, Kipp, Robert and Mori, Hideyuki (No Year). We are What We Consume: Sustainable consumption in a resource constrained world. IGES White Paper. *http://enviroscope.iges.or.jp/modules/envirolib/upload/2806/attach/iges_whitepaperiii_e_c01.pdf*

Kharas, Homi (2010). The Emerging Middle Class in Developing Countries. OECD Development Centre Working Paper No. 285. *www.oecd.org/dataoecd/12/52/44457738.pdf*

Krauel, Heidi and Montgomery, Joel (2010). Lessons from the Field: Sales at the Bottom of the Pyramid. Acumen Fund.

MB (2011). Bottle Bulbs to Provide Light to Poor. Manila Bulletin. *http://www.mb.com.ph/articles/314093/bottle-bulbs-provide-light-poor*

McKinsey Global Institute (No Year). The Bird of Gold: The Rise of India's Consumer Market. *http://www.mckinsey.com/mgi/publications/india_consumer_market/slideshow/main.asp*

Mont, Oksana and Power, Kate (2010). The Role of Formal and Informal Forces in Shaping Consumption and Implications for Sustainable Society: Part II. *http://www.mdpi.com/journal/sustainability*

Prahalad, C K and Hart, Stuart (2002). 'The fortune at the bottom of the pyramid', Strategy+Business 26 (First Quarter): 2–14. *http://www.cs.berkeley.edu/~brewer/ict4b/Fortune-BoP.pdf*

PRB (2011). 2011 World Population Data Sheet. Population Reference Bureau. *http://www.prb.org/pdf11/2011population-data-sheet_eng.pdf*

Ravallion, Martin (2009). The Developing World's Bulging (but Vulnerable) "Middle Class". Policy Research Working Paper 4816. The World Bank.

Ross, Stephen (2011). The Harvest Fields: Statistics 2011. *http://www.wholesomewords.org/missions/greatc.html*

RTEC (2006). Developing Products for Low-Income Consumers in Emerging Markets. (Issue Brief-March). Research & Technology Executive Council (RTEC).

SDC (2010). Making Sustainable Lives Easier – A Priority for Governments, Business and Society. Sustainable Development Commission.

SERI (2010). SERI Working Paper Series. Working Paper Number 11.Resource use and resource productivity in Asia. Trends over the past 25 years. Sustainable Europe Research Institute (SERI); Wuppertal Institute for Climate, Environment, Energy. *http://seri.at/wp-content/uploads/2010/05/SERI-Working-Paper-11.pdf*

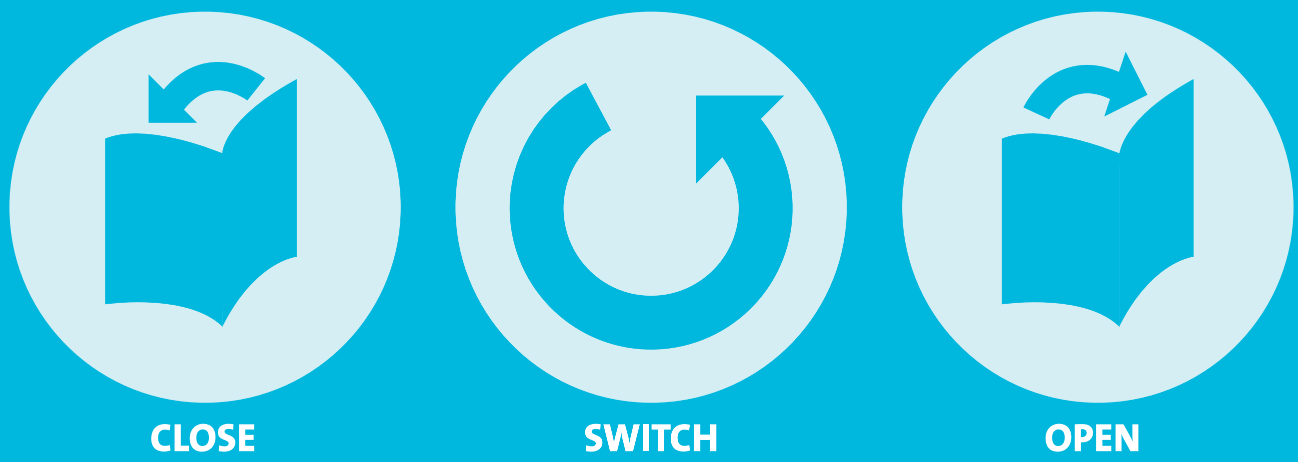
SIB (2010). Theme 223: The Business of Financial Inclusion (Part 1). 18th Year of Publication. South Indian Bank (SIB). *http://www.southindianbank.com/UserFiles/223.pdf*

Synovate (2006). Insight Into Low Income Consumers. Emerging Markets From In Fact 2006.

Swedish Taskforce on Sustainable Lifestyles (2010). Task Force on Sustainable Lifestyles Presentation. *http://www.slideshare.net/SustLifestyles2010/task-force-on-sustainable-lifestyles-presentation*

Traidcraft, COTEX and AIACA (2010). Sustainable Textiles for Sustainable Development – Market Research Study in

India. Traidcraft, COTEX and All India Artisans & Craftworkers Welfare Association (AIACA).
UNDP (2007). Water, Food, and Money: Forces for Change in the World. The Problem of Fresh Clean Water, Proper Sanitation for All. United Nations Development Program. *http://carmelites.info/citoc/citoc/julysept2007/citoc.july_september_2007.ngo.htm*
UNEP (2001). Consumption Opportunities: Strategies for Change, United Nations Environment Programme, Paris.
UNEP (2005). Advancing Sustainable Consumption in Asia. A Guidance Manual. United Nations Environment Program Division of Technology, Industry and Economics. *http://www.unep.fr/shared/publications/pdf/DTIx0742xPA-AdvancingAsia.pdf*
UNESCAP, ADB and UNDP (2010). Paths to 2015. MDG Priorities in Asia and the Pacific. Asia-Pacific MDG Report 2010/11. United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), Asian Development Bank and United Nations Development Programme. *http://content.undp.org/go/cms-service/stream/asset/?asset_id=2784969*
WEEE Recycle (2010). Mainstreaming the Informal Sector in E-Waste Management. Establishing E-waste Channels to Enhance Environment Friendly Recycling. *http://www.weeerecycle.in/publications/research_papers/Informal_Sector_in_E-Waste_Ahmedabad_Conference.pdf*
WEF (2011). Consumer Industry Emerging Trends and Issues: Report of the 2010-2011 Consumer Industry Agenda Council. World Economic Forum (WEF).
World Resources Institute (2007). The Next 4 Billion. Market Size and Business Strategy at the Base of the Pyramid. *http://pdf.wri.org/n4b_executive_summary_graphics.pdf*
Worldwatch Institute (2004). State of the World Today. *http://www.worldwatch.org/node/810*
WRI and BRI, (2010). 2010 Global Ecolabel Monitor. World Resources Institute (WRI) and Big Room Inc. (BRI). *http://www.ecolabelindex.com/downloads/Global_Ecolabel_Monitor2010.pdf*



This side of the booklet has reviewed consumption trends in the Asia Pacific region and presented challenges in achieving a shift towards the consumption of ethical products, responsible product use and good end-of-life management.

Please ‚switch‘ now to the other side to read about solutions and opportunities. The solutions section of the booklet contains case studies of programmes and projects from the region. These examples showcase 'sustainable consumption' especially in overcoming challenges at decision points – what to buy, how to use, and how to discard.