

Consumer Scapegoatism and Limits to Green Consumerism

Lewis Akenji

Institute for Global Environmental Strategies

Abstract:

An axiom that has shaped policy approaches to sustainable consumption has been that if more consumers understand the environmental consequences of their consumption patterns, through their market choices they would inevitably put pressure on retailers and manufacturers to move towards sustainable production. The result is the proliferation of green consumerism and consumption of “green” products; eco-labels to assist consumers in making informed ecologically conscious choices; consumer awareness campaigns, etc.

However, this paper argues that the dominant focus on green consumerism as against the need for structural changes towards a broader systemic shift is unrealistic. Furthermore, promoting green consumerism at once lays responsibility on consumers to undertake the function of maintaining economic growth while simultaneously, even if contradictorily, bearing the burden to drive the system towards sustainability. Given the scope of the sustainability challenge and the urgency with which it must be addressed, this paper argues that the consumer is not the most salient agent in the production-consumption system, and so expecting the consumer through green consumerism to shift society towards SCP patterns is consumer scapegoatism.

This paper draws on the discursive confusion over discourse and practice of sustainable consumption in an attempt to clarify the differences between green consumerism and sustainable consumption, and to provide a broadened framework for sustainable consumption policy design that enables wellbeing and ecological sustainability without propagating the economic growth dogma that has a stranglehold on contemporary policy-making.

1 Introduction

The central premise of this paper is that governments have encouraged policies that foster green consumerism (GC) instead of sustainable consumption (SC); that GC, although incorporates environmental considerations, is at best at the periphery of SC and, even worse, provides an illusion of progress which distracts from the urgent structural changes needed in order to achieve sustainable development (SD). Differences between green consumption and sustainable consumption might initially seem to be only semantic; the policy propositions however and practical consequences have serious implications on achieving a sustainable civilization.

Green consumerism refers to the production, promotion, and preferential consumption of goods and services on the basis of their pro-environment claims. The popularity of such examples as the Toyota Prius, a petrol-electricity hybrid car, fair trade coffee, energy efficient TV sets, etc., among green consumers are examples of green consumerism. Among the most visible approaches of promoting green consumerism are eco-labelling schemes for products and services, public awareness campaigns, eco-efficient production standards and process certification (especially achieved through green technology), green public procurement by governments and public institutions, and recycling activities of post-use products (Akenji et al 2011). This is reflected in the works of international bodies such as the United Nations Environment Programme (see for example UNEP 2005; UNEP 2008; UNEP 2009; UNEP/Consumers International 2006; UNFI 2007) and the OECD (see for example OECD 1997, OECD 2002a, OECD 2008a, OECD 2008c); product labelling codes and standards, and waste recycling policies of national governments, corporate social responsibility (CSR) strategies of companies; and shopping and or domestic waste recycling by households.

Eco-labels abound for different product groups and sectors. Some well-known ones are the Nordic Swan (Scandinavian countries), the Blue Angel (Germany), Eco-Mark (Japan), Energy Star (USA). Some sectors have developed certification for production process and corresponding eco-labels to guide the consumer choose green products. The Forestry Stewardship Council (FSC), a not-for-profit organization, allows its name, acronym or logo to be used on timber and forestry products that conform to voluntary environmental and social standards set by the organization – with the designation “FSC Certified”. The Marine Stewardship Council (MSC) follows a similar approach for MSC Certified and eco-labeled fisheries products.

To demonstrate eco-efficiency, in European Union a Directive (European Parliament 2010) requires that household electrical appliances in the market, including refrigerators, freezers washing machines, dryers, ovens, water heaters and hot-water storage appliances, lighting sources, and air-conditioning appliances to carry a label providing information on energy consumption. Energy efficiency of appliances is displayed on a fiche and rated from A to G, with energy efficiency of A-rated products (and the A+ variations) being very high, and very low with G-rated products. The intention is to have consumers choose products that consume less energy and to encourage manufacturers to meet market demands for these efficient products. The EU Action Plan for SCP mirrors the same message of improvements in efficiency of consumer products (EC 2008). The paradoxical consequence of promoting GC demonstrated by the case of household appliances is the so-called rebound effect (Herring and Sorrell 2009): although washing machines and television sets have become more efficient, savings per unit have meant that people buy even more - the absolute amount of consumption has increased, outstripping the efficiency gains.

Patterns indicate growing popularity of energy efficient household machines, fair trade chocolate, dolphin-free canned tuna, and organic cotton fashion. While data on these niche initiatives might be promising; data from areas that are central to social, economic and environmental sustainability is less promising. Fisheries and fertility of farmlands are in decline; natural resource stocks, the raw materials for production, are dwindling; inequality is growing in society; many more illnesses related to unsustainable lifestyles are being diagnosed. By 2050 the planet would have to handle 9 billion people, having lifted almost a quarter of them out of poverty and accommodating a potent consumer class of more than half the global population in cities (Meadows et al 2004).

Future projections hold further demands on the environment, with serious potential consequences on human well-being. The International Energy Agency (IEA 2009) estimates that at the current rates of consumption, global primary energy demand will rise by 40% between 2007 and 2030. Oil demand will grow from 85 million barrels a day in 2008 to about 105 mb/d in 2030; demand for coal, a highly polluting source of energy, will grow to 7000

Mtce between 2007 and 2030; the world will need additional power-generation capacity of about 4800 GW of electricity by 2030 – the share of coal in the generation mix will be 40%, while renewable energy will make up 22%. GHG emissions resulting from producing this energy will dwarf the IPCC-recommended cut in global CO₂ emissions by 85% over 1990 levels for the world to stay below a 2 degrees Celsius increase in temperature by 2050 (IPCC 2007).

The OECD (2008b) projects that in cities, where most people will be living by 2030, there will be further deteriorations to urban air quality with severe health effects from exposure to particulate matter and ozone. Exposure of agricultural crops to ozone cost an estimated 2.8 billion Euros in 2008 (ibid); globally over 2 million people die prematurely each year due to indoor and outdoor pollution (UNEP 2007).

Ethical and environmental standards – usually voluntary and by NGOs – have been introduced, but extraction of both renewable and non-renewable resources continues and at an increasing pace¹. The production process has been “streamlined” and manufacturing “leaner”; with increasing reliance on technology energy efficiency and resource productivity have improved, but the sheer volume of material production keeps growing. Eco-labels have been introduced to guide consumers shopping decisions, and niche products (such as organic products, fair trade products, etc) have come to the market but the most visible change is a paradoxical trend of increasing consumption; design of systems of provision has hardly changed. Essentially, even with the widely promoted and now accepted notions of green consumerism, production and consumption continue to increase in an unsustainable manner and pace.

Previous literature has similar comparisons essentially trying to differentiate between GC from the transformative potential of SC to deliver the objectives of sustainable development. Fedrigo and Hontelez (2010) observe that through promoting GC, SC has been downgraded to “sustainable consumer procurement”. Aunty and Brown (cited from Hobson 2006) refer to green products and technologically driven solutions as ‘weak sustainability’; Fuchs and Lorek (2005) pick up on this to highlight the differences between a “weak” SC approach (based on efficiency) and a “strong” SC approach (based on sufficiency). The emerging new economics domain emphasizes needed deep systemic as against current peripheral activities (Brown et al 2012, Jackson 2009). Instead of the narrow focus of green consumerism, Lebel and Lorek (2008) propose to look how to enable “sustainable production-consumption systems.

This paper draws on the discursive confusion over discourse and practice of sustainable consumption (Hobson 2006; Markula and Moisander 2011) in an attempt to clarify the differences between GC and SC, and to provide a broadened framework for SC policy design that enables wellbeing and ecological sustainability without propagating the economic growth dogma that has a stranglehold on contemporary policy making (Daly 1996, Jackson 2009, Meadows et al 2004, Princen et al 2002, Schor 2010).

The paper starts by presenting the proliferation of green consumerism in sustainable consumption policy. In the following section it addresses the differences between GC and SC, examining their histories, definitions of the consumer, proponents of the different viewpoints, sample policies, and the central tenets. The above criteria are discussed not in a linear analysis but interwoven to reflect the complexity of the issue. Following the comparison it introduces a framework for sustainable consumption policy, arguing that in order for consumers to exercise agency, there must be three preconditions: the right attitude, facilitators that could translate attitude to behaviour, and sustainable products and

¹ In fact raw materials are now being used as a weapon in geopolitical wars (see China and rare earth metals, Iran and oil, Palestine/Israel conflict and water).

infrastructure. The paper then concludes by proposing four-action policy plan for policy to enable sustainable consumption.

2 Differentiating green consumerism from sustainable consumption: a literature review

A recent history of SC can be referred back to the 19th century, with writers like Henry Thoreau and Thorstein Veblen as early critics of high levels of consumption in industrial society. Although consumerism was not necessarily related to environmental consequences, criticism of conspicuous consumption (see Veblen 1899) came under the lens of pursuits of social status and the potential socially distorting consequences it had on contemporary society. A more recent history of SC in international policy can be seen from the 1972 UN Conference on the Human Environment; this was in the same year as the release by the Club of Rome of the landmark publication *The Limits to Growth* with a clarion call to shift course away from the economic growth paradigm in order to avoid overshoot and collapse (Meadows et al. 1972). In 1992 at the Rio Earth Summit, SC came to be established as a policy concept in its own right when world leaders acknowledged that “the major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production” (UN, 1992; §4.3). Chapter four of Agenda 21, the blueprint for action resulting from Rio, is dedicated to “changing consumption patterns” with two broad objectives to guide government actions (UN, 1992):

- a) To promote patterns of consumption and production that reduce environmental stress and will meet the basic needs of humanity;
- b) To develop a better understanding of the role of consumption and how to bring about more sustainable consumption patterns.

This central role of SCP in achieving sustainable development was reaffirmed at the World Summit for Sustainable Development in 2002; SCP was declared once again one of the “overarching objectives of, and essential requirements for, sustainable development” (UN, 2003 §2) – the other two objectives are environmental protection and poverty reduction. Governments committed to develop national strategies, policies and action plans to “accelerate the shift” towards SCP.

For GC, an institutional history of the concept is not clear, not least because it is a practice approach driven by the market, unlike SC which is on policy agenda and thus can be traced through records of government deliberations. However, central tenets of GC can be traced to the emergence of public consciousness of environmental and social problems relating to economic activities. In this respect, green consumption is the practical, early baby step that grew into sustainable consumption and pushed it into the international policy agenda (Hobson 2006). This paper attempts to briefly trace it hear through the history of consumer organisations and efficiency policies.

In March 1960 the first international conference of Consumer organizations took place in The Hague resulting in an agreement to foster a global consumer movement and to create the International Organisation of Consumers Unions (now Consumers International) (Consumers International. Undated). Shortly after, in 1962 US President John Kennedy declared the four basic rights of consumer - the rights to safety, information, choice and legal representation. These rights were adopted as the basic operating guide for consumer organizations. However as environmental and social concerns grew these organisations sought to use consumer influence to seek broader rights. To the four basic rights, they added: the rights to satisfaction of basic needs, redress, consumer education and a healthy environment. The United Nations adopted these rights in 1985 (Ha et al 2009). As issues such as animal rights, poverty, child labour became prominent in public discourse, activist organizations such as Greenpeace

emerged and began employing more radical approaches (e.g. demonstrations against companies, calls for product boycotts) that created broader consciousness and demanded urgent action. One of the first globally recognised environment labels for certified products and services was the Blue Angel (Blauer Engel) in Germany in 1978. Today it certifies over 10,000 products from 1000 licensees (Lebel and Lorek 2008).

Harrison et al (2005) have proposed some external factors that influence the growth of ethical consumer consumption – another practice of green consumerism. They include:

- i. social and environmental effects of technological advance;
- ii. the rise of campaigning pressure groups;
- iii. increasing product choices and a shift in market power towards consumers;
- iv. globalization of the markets and weakening of national governments;
- v. the rise of transnational corporations and brands;
- vi. and effectiveness of market campaigning;
- vii. the growth of wider a wider corporate responsibility movement.

Harrison et al argue that such discriminating consumerism can also be seen in light of attempts by consumers seeking to maximize their political effectiveness in a rapidly changing global economy.

As civil organisations put more pressure, governments and industry needed to show some degree of response to the problem. For example, eco-efficiency, a reductionist approach to the need for sustainable production, was coined and proposed by the World Business Council for Sustainable Development (Schmidheiny, 1992). It largely depends on technology to achieve more efficient production without sacrificing the pro-economic growth approach of producing more goods and services. At the 1992 Earth Summit, allusion was made to the concept, for example where Agenda 21 (§4.18) asks that: “Governments, in cooperation with industry, should therefore intensify efforts to use energy and resources in an economically efficient and environmentally sound manner”. By the 2002 Earth Summit in Johannesburg the WBCSD coinage of the phrase had become widely accepted; the concept made its way to the outcomes of the Summit as one of the recommended approaches to SCP. The Johannesburg Plan of Implementation declares the need to: “increase eco-efficiency, with financial support from all sources, where mutually agreed, for capacity-building, technology transfer and exchange of technology” (UN 2003; §3.14(f)). Green consumerism has grown as green marketing has increased its persistence and sophistication (Kilbourne and Beckman 1998; Wagner-Tsukamoto 2009; Hartmann et al. 2005).

Another key difference is in the definition of a consumer. In Hobson’s (2006, P 309) has observed that an essential part of the discourse on GC is the framing of individuals as consumers, that “all individuals possess a utility function” which the free market simply answers to. Taking the cue, (Cohen (2005) argues that in designing policies and instruments for implementation, strategies for sustainability, and activities, governments for the past 30 years have relegated the role of consumers to end-users and intermediaries, failing to “recognize consumers as serious interlocutors in policy design and implementation.” When it comes to interfering on individual choices, policy makers regard individual consumption as a sovereign domain, beyond the reach of public intervention. Although governments have intervened in consumption of certain products – e.g. tobacco, firearms, alcohol, etc – especially in affluent countries, “neo-liberal thinking cautions against using public policy to unduly manage consumer decision making”. The logic this for promoting end-point green consumerism seems to be that in a democratic market economy, there would be continued production of a product only if there is a market for it; since the consumer is the target

objective, through the patterns of consumption and the choices they make, there is a direct consequence on what is produced. Thus a critical mass of informed, ecologically conscious consumers can, through the market mechanism, apply pressure on producers that would translate to how the environment is being treated.

Green consumerism is necessarily related to the market for products – as is demonstrated by the case of eco-labelled and energy efficient products. Hartmann et al (2005), looking at business strategies to position their products as green, say “a green brand identity is defined by a specific set of brand attributes and benefits related to the reduced environmental impact of the brand and its perception as being environmentally sound” (P 10). To de Boer (2003, P 258) although there might be diverse reasons for companies to choose eco-labelling, an important motivation is that such labelling “can always be translated into traditional business criteria, aimed at short-term and long-term profits”. To the producer, being green strategically provides a market for its products - “individuated consumers-as-final-demanders” (Princen et al. 2002; P:17). To the environmentally conscious consumer, green consumerism provides a “warm glow” from acting in an altruistic manner (Autio et al 2009).

Princen (2002) and Clapp (2002) have used the concept of “distancing” to explain one of the consequences of isolating consumers from the systemic perspective of production and consumption. To Princen, physical, cultural and other forms of distancing keep the consumer away from understanding how lifestyle purchases affect resource extraction for production. From the opposite end of the product chain, Clapp applies the same concept to waste. She argues that because household waste is conveniently and regularly collected and disposed of, people have little understanding of where the waste associated with the production of their purchases ends up. This leads to a growing mental, cultural and geographic distance between consumers and their waste. Whether from resource extraction or waste generation, the more people are isolated as final-end consumers, green or otherwise, distancing causes ecological feedback to be severed, leading to decisions that perpetuate resource overuse and increased waste generation. For the green end-consumer, the warm glow is derived from believing the green marketing and having bought the eco-product, and not from any realistic understanding of the ecological consequences, especially as consumption accumulates (see rebound effects, for example).

For SC, in addition to end-users, the producer is also a consumer – as in the consumption of raw material, consumers of labour and consumers of other producers’ products and services. Princen et al. (2002; P 3) have argued that SC in a deep sense addresses: “throughput (the overall flow of material and energy in the human system), growth (increasing economic activity or throughput or both), scale (the relationship of the scope and speed of economic or “material provisioning” activity to human and ecological capacity), and patterns of resource use (the quantities and qualities of products used, their meanings and their changes per capita over time)”. This view is being reflected in a growing body of emerging research that Cohen et al. (2012) say represents a perspective on the political economy of consumption (see, for example, Jackson 2009; Cohen et al 2012; Clapp 2010). The political economy of consumption sees patterns such as intensifying environmental stress, growing economic volatility and widening social inequality as being interlinked and needing to be addressed under the same framework (Cohen et al. 2012, P. 7). Alas this understanding is still mostly prevalent in the research community as well as some progressive advocacy groups.

An extension of the above argument is that green consumerism has an end-of-pipe approach. The intention here is not to change the system, but to modify the production processes and the products that are consumed. The definition of green is based on the subjective perception of the producer and the consumer, not necessarily on the facts of whether such behaviour would achieve the end objectives of sustainability. Activities such as buying an energy-efficient drying machine over using natural sunlight to dry clothes, or

buying bottled tap water packaged in a recyclable PET bottle begin to take higher meaning under green consumerism. As Princen et al. (2002; P2) put it, green consumption takes place “in support of some moral imperative to consume recycled or recyclable products”. For SC, the tendency is to understand the drivers of consumption and intervening at a preventive level.

The political economy perspective makes the green consumerism approach rather shallow, as it mainly addresses (green) technology for more efficient production, green purchasing behaviour by end-users of products, and recycling activities at the end of life of products. There are however recent indications that government of especially industrialized countries, in the face of growing resource scarcity, economic growth stagnation, and pressure from growing social movements (Cohen et al 2012) might be thinking of this deeper approach. This can be seen in examples such as the European Commission Communication “GDP and beyond: Measuring progress in a changing world”, which outlines an EU roadmap with key actions to improve indicators of progress in ways that meet citizens’ concerns and make the most of new technical and political developments (EC 2009). In France the Presidential Commission on the Measurement of Economic Performance and Social Progress released its report proposing “a global statistical system which goes beyond commercial activity to measure personal well-being” (Stiglitz et al 2009). There still remain challenges in reflecting this in policies, as well as a lack of political will to undertake the drastic changes that are needed to achieve SC though such a paradigm shift.

One of the issues and critical differences is that continuous economic growth - embodied in GC - is the dominant paradigm; one which remains central to government legitimacy (Jackson 2009). On the one hand, at least conceptually, sustainable consumption, at its most effective, needs people to consume less, in order to reduce the pressures on natural resources that are used as raw materials and to lower wastes resulting from production and consumption. In contradiction, market-economy systems need to constantly increase consumption in order to sustain the economy and the system. Consumption drives production, which drives economic growth. Government and market promoted GC is thus carefully calibrated to not slow down the economy but to operate as a peripheral activity, that safeguards only against the most damaging and immediate environmental problems. Consequently, the increased emphasis on efficiency and green consumerism has allowed governments to walk a fine line that pays lip service to SC while still allowing consumer sovereignty (Shove 2006), and tacitly or explicitly encouraging continuous consumption.

One often commented example of such encouragement is through policies for consumer loans and credit systems that have seen steady increases in consumer indebtedness (Jackson, 2009; Schor 2010). An explicit example is that by the government of Japan, which has used the so-called Eco-Points to boost consumer spending and economic growth. Consumers, who buy new energy-efficient flat-screen TVs, refrigerators, air-conditioners, etc., or who upgrade from old ones to new ones are awarded with Eco-Points, which can then be used to buy even more products. Between 2009 and 2010 during which the Eco-points program was in effect, sales of air conditioners rose by 21%, refrigerators by 9% and digital TV sets by 62% compared to the previous year (MOEJ et al 2011). Sociologist Nick Turnbull surmises that “the state, rather than undertaking the risk of deficit spending to stimulate growth itself, is using policy mechanisms to encourage households to do this”, leading to rising consumption and debt (Spaargaren, 2003). It becomes evident that promoting green consumerism at once lays responsibility on consumers to undertake the function of maintaining economic growth while simultaneously, even if contradictorily, bearing the burden to drive the system towards sustainability.

The International Resource Panel (UNEP 2011) points out the difficulty of delinking growth from environmental pressure. Although relative decoupling has been registered through increased efficiency, as Jackson (2009) points out: there is less evidence of absolute decoupling – the measure needed to stay within ecological limits. Despite declining energy and carbon intensities, CO₂ emissions from fossil fuels have increased by 80% since 1970. Emissions today are almost 40% higher than they were in 1990 – the Kyoto base year – and since 2000 that have been growing at over 3% per year. Global extraction of metal ores - iron ore, bauxite, copper and nickel - is now rising faster than world GDP. Similarly, cement production has more than doubled since 1990, outstripping growth of GDP by 70%. In the case of Asia, as emerging economies build up their infrastructure and a more demanding consumer class emerges, there is increasing pressure on natural and social resources. Observers of these patterns and those making the critical distinction between relative and absolute decoupling have cautioned against seeing decoupling as a standalone concept.

As the UN commemorates the 40th anniversary of the Stockholm Conference and the 20th of the Rio, non of the member states can demonstrate that it absolutely decoupled economic growth from environmental pressure. Social conditions have improved among some of the poorer countries and deteriorated in some cases. The world is still struggling to find a way out of the recent financial crises; among several of the industrialised countries and in developing countries dissatisfaction is growing, some of it registered in through public riots and radical political and social movements. All of this in a world where economic growth is being charted and levels of consumerism rising. Ecological footprint measures show that the world reached its limits in 1986, and since then resource use has continuously outstripped biocapacity. 2006 foot print data show that for every 1.8 hectares available per person globally, we are each using on average 2.6 hectares. Schor (2010) observes that we are living beyond our planetary means, operating 40% above biocapacity. This assessment matches reports that of the nine “planetary boundaries” (Rockström et al 2009) within which humans can operate safely, we have already consumed our way above safe limits of three (climate, biodiversity, the nitrogen cycle) and are approaching the limits of four others (freshwater use, land use, ocean acidification, and the phosphorous cycle).

3 A framework for SC

There are many models for studying consumer behaviour and for analyzing the policies that influence them (see, for example Jackson’s (2005) review for the Sustainable Development Research Network for an extensive discussion on models or Fuchs’ analysis of the influence of business power in globalized markets (Fuchs 2005)). To avoid making consumers the scapegoat and to go beyond green consumerism, a framework should address the attitude-behaviour gap (Markula and Moisander 2011) lock-in aspects, consider macro factors that influence consumer behaviour beyond their influence, provide agency for agents. To develop a framework that reflects these aspects, characteristics of some influential models have been analysed; selected ones are described below.

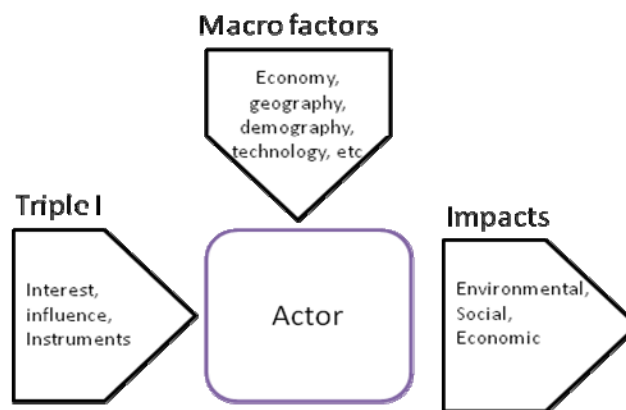
3.1 The Triple I

The Triple I framework is used in describing and understanding drivers of consumption, how power is wielded by stakeholders in a value chain, and points of policy interference (Akenji and Bengtsson 2010). The ‘I’s represent:

- i. the **interest** of each stakeholder group in the issue
- ii. the **influence** groups have over each other in the value chain
- iii. and the **instruments** they have that provide agency.

To compensate for the broader societal and physical context in which production and consumption take place, the 'I's are placed against factors such as technology, economy, demography, and culture. A contribution of this model is that it directs focus to critical nodes in the value chain such that corrective responsibility can then be allocated in a manner that is appropriate to the capacity of each stakeholder. Using the Triple I framework to analyse power structures in a value chain would reveal the *nexus of influence* and also highlight the *lead actor* – the stakeholder group with the most influence and the one which if targeted by policy has potential to use their influence to cause positive cascading changes in the value chain.

Figure 1: The Triple I framework



Source: Akenji and Bengtsson (2010)

3.2 Systems of Provisions

Demand for household services like energy, water, waste is structured by the utility companies, manufacturers and regulators involved in specifying technologies and systems, managing loads and modifying resource flows (Chappells and Shove 2003). The extent to which everyday household consumption behaviour can change is not only dependent on consumer attitude but also on highly interdependent socio-technical networks or systems of provision (OECD 2002) – the systems through which services or resources are produced, delivered, distributed and used. The approach recognizes the effects on behaviour by lock-in characteristics of social and physical infrastructure. Using this logic, design for systems and infrastructure for food, mobility, housing, fashion, etc, predetermine the degree of flexibility an agent has in adopting sustainable lifestyles. The implications are that policies should be directed at not only individual households but should also reform the systems of provision on which they depend.

3.3 Awareness-Agency-Association

David Ballard (2005) has combined a literature overview of “checklists for sustainable change agents” with his experience from field research and identified three conditions that need to be present in order to effect a change process for sustainability. They are awareness, agency, and association.

- i. **Awareness** of the issue by stakeholders
- ii. **Agency**, or identification of meaningful ways to respond
- iii. **Association** with likeminded agents, both to empower change agents and to mobilize wider support.

Proceedings: Global Research Forum on Sustainable Consumption and Production Workshop, June 13-15, 2012, Rio de Janeiro, Brazil.

3.4 The Four 'E's

The four 'E's were developed by the UK Government to support to support delivery on its SD strategy (HM Government 2005). The 'E's are an easily communicable theoretical framework to guide government approach to "catalyse" change in attitudes and behaviours of people and communities. They are:

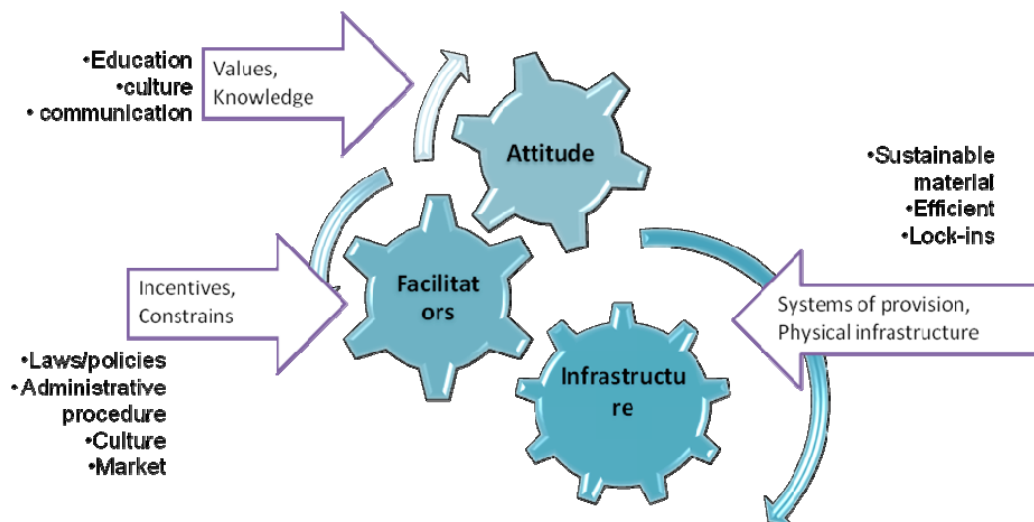
- i. **enable** people and communities, e.g. by removing barriers to sustainable lifestyles, providing viable alternatives to consumption, education;
- ii. **encourage** by rewarding positive action and penalising wrong behaviour;
- iii. **exemplify** through substantive actions and consistency in policies; and
- iv. **engage** people to make contributions in the process of change.

While acknowledging consumer responsibility, the above frameworks recognize that consumer's decisions are neither always individual nor rational but are subject to other factors beyond their immediate control. Social and physical infrastructure are determinants, giving broad direction to consumer behaviour. Thus expecting the consumers to overcome such systemic barriers, with limited influence over major players in the value chain, and already overwhelmed with day-to-day decisions to be the primary driver of an issue as complex as sustainable consumption is consumer scapegoatism – a case of targeting the most visible stakeholder rather than the most influential. And finally, the frameworks open up space for solutions not just from consumers but from a broader systems level. These characteristics have influenced the Attitude-Facilitators-Infrastructure (AFI) framework presented below.

4 The AFI framework

The AFI framework is useful in designing and describing elements of a comprehensive policy package. According to the framework, to enable sustainable consumption at a systems level, three elements are needed and should operate in concert with each other: the right attitude from stakeholders; facilitators to enable actions reflect attitudes; and appropriate infrastructure that would make sustainable lifestyles the easier option. Each three elements are described below, showing their characteristics, influencing factors, associated concepts from literature and practice, and examples of relevant policies.

Figure 2 key elements for mainstreaming sustainable consumption



4.1 (Right stakeholder) attitude

The right attitude refers to having a (positive) predisposition to being a sustainable consumer and accepting potential solutions that would lead to sustainable development. As demonstrated by the attitude-behaviour and knowledge-behaviour gaps, having the right attitude is not enough. However it provides a frame of mind which allows for engagement in seeking solutions, acceptability of necessary paradigm changes that would affect the stakeholder, and makes it easier to facilitate a transition towards the desired outcomes. This refers not just to consumer attitudes but also those of all stakeholders involved in the production-consumption system, as well as those influencing or being influenced by it: businesses, policy makers, legal practitioners, farmers, community leaders, politicians, and teachers.

Interdisciplinary research shows that attitudes are shaped by belief systems, personal values, social norms and mores, knowledge, etc. Influencing factors include education; cultural, the physical, social and legal environment (what can be tolerated and what cannot by society/law sends a signal); communication of exemplary messages, e.g. by highlighting beacons of sustainability or through the models that create aspirations in society.

Ballard's (2005) recognition of awareness as a precondition to driving change supports the importance of attitude. He identifies four levels of awareness.

- i. awareness of the issue or agenda of SD
- ii. awareness of scale, urgency and relevance of SD,
- iii. awareness of the complexity of SD,
- iv. awareness of the limits of human agency – a point not noted by the blind trust in technology.

A transition to a sustainable society would be facilitated if there were conscious efforts to provide knowledge and engrain those sets of values that would allow agents to act in recognition of sustainability challenges. Formal school curriculum as well as public events should reflect this. Awareness-raising campaigns are important not merely for changing people's shopping choices in the supermarket, but even more in building demand for and acceptance of political decisions and innovative alternatives towards SC. While there are campaigns to evoke consumer citizenship, there should also be training programs for business leaders, community leaders, judges, politicians, etc.

The *willingness* of a politician, for example, to remove all subsidies on fossil fuels demonstrates an attitude. The right attitude should, where possible, encourage social over individualistic consumption; and services over material products. We need to foster attitudes with an appreciation of community, friendships, literature, gardening, etc., and other non-consumptive activities that have proven to contribute to well-being at little material cost but for which there is no direct economic valuation in national accounting systems. Having empathy, for example, can also contribute to SC: in the industrialized world and among the global consumer class, stakeholders should be able to understand the plights of those suffering from under-consumption, and be willing to moderate levels of consumption in order to free up consumption space so the needs of under-consumers can be met within ecological boundaries. With the right attitudes, consumers would be more conscious of the effect of their lifestyle and product choices on the environment; investors would be more socially and environmentally responsible, avoiding provision of capital to businesses that wantonly exploit natural resources and pollute the environment; producers would conduct a life cycle analysis of their products, shift to renewable raw material for production, or switch to providing value instead of material products. Beyond the technical fixes in production and

marginal changes in consumer behaviour, a right attitude for sustainable consumption requires that consumers, producers and policy makers learn to imagine a world in which we consume less (for over-consumers), or differently (for under-consumers).

4.2 (Effective) Facilitators

Price, eco-labels, jail sentences, a scolding from a grandparent – these are examples of tools for facilitators. Facilitators provide an enabling environment or a course of action for a transition to sustainability. It could be a government regulation that requires cigarette prices to reflect their health costs, or a village norm where excessive individual accumulation of material wealth is frowned upon. Facilitators provide incentives (e.g. subsidies) to encourage a particular pattern of behaviour or course, or places constraints (e.g. fines) to discourage unwanted outcomes. More critically, facilitators provide agency to stakeholders of sustainable consumption.

Some influencing factors, as well as typical facilitators are legal, administrative, cultural and commercial.

- i. The law provides a **legal platform** to challenge certain behaviour, a progressive legal system would provide a platform for innovation. A law (legal facilitator) prohibiting the sale of bottled water in a town where the quality of tap water is demonstrated to be safe for consumption discourages commoditization of water and use of scarce resources for bottling.
- ii. The existence, ease or difficulty of **administrative processes** encourages or discourages engagement. An office (administrative facilitator) set up to ensure local farmers' produce are stocked in grocery stores promotes local production and closer community ties between farmers and buyers of produce;
- iii. **Cultures** predetermine our day to day behaviour, they give guidance on what is acceptable and what not in a society. A culture that upholds financial as success encourages competition, just as a community day when locals come together to trade skills, services, time shares, arts among each other (cultural facilitator) encourages community action;
- iv. The **market** facilitates buying and selling, e.g. a banking service (commercial facilitator) that provides low-interest financing for development of passive houses in a one-planet community (Desai 2010).

Facilitators can easily act to the detriment of sustainability, e.g. a patent restriction might prevent the mass deployment of certain innovative ideas that have a transformative potential; a perverse subsidy gives fossil fuels a market advantage over relatively more sustainable options.

Other facilitators are noticeable. Greenpeace managed in the 1990s to use shocking tactics to draw attention to environmental issues which were otherwise being ignored. Today new social movements are emerging –slow food, occupy, transition towns, etc. These are born out of disillusionment with current institutional practices and have sort to create suitable alternatives. The longer they last and the more momentum they generate, the more they become culturally and politically acceptable. Some facilitators create momentum (e.g. through social movements) allowing fringe ideas or initiatives to grow into the mainstream; others create precedence (e.g. innovative actions), providing a historical reference and a cultural space for acceptability of new ideas.

In terms of SC, a crucial characteristic of an effective facilitator is that it recognises the limitations of individual consumer agency to shift the production-consumption system. Social

innovators, educators, producers, governments should recognise and reflect this; public policy should - one of the most effective facilitators – needs to catch up. As Ballard contends, “the most significant agency is usually found in addressing the wider contextual issues, for instance by changing the law or by amending the public procurement process for major projects such that sustainable development issues may more reliably be incorporated in the design” (Ballard 2005, P 143). In a system of runaway economic growth, government ought to take leadership in deploying transformational policy, to facilitate engagement in production-consumption systems in forms that fulfil human needs and where attainment of well-being is decoupled from social and ecological stress.

4.3 (Appropriate) Infrastructure

A basic premise of SC is that if a product is to be consumed it should be the most sustainable option. The physical aspects of consumption have received much attention, primarily because of the visibility aspects, hence prevalence of green consumerism. Infrastructure for SC however is more than just about the products. Getting the product is the end result of several combining factors, including the social environment and the physical infrastructure.

Eating, going from place to place, and being at home are some of our everyday activities. As the systems of provision framework realises, for people to act sustainably the infrastructure that governs these activities must be sustainable and also foster sustainable behavioural patterns. Such infrastructure should remove negative lock-ins. Providing a dense network of safe bicycle tracks and parking space in the city, and prioritizing bus lanes over private car use would make more sustainable mobility easier option. The appropriate infrastructure could also encourage and prioritise local community bonds over individualisation. Granting licences for operating farmers’ markets in city centres and on strategic transit spots that lie on the way between work and residential zones; providing tax incentives to local shops that host exchange or trading of used goods. One of the four ‘E’s, recommends engaging communities in deliberative fora, co-production and community action.

Also significant is how infrastructure for the various activity domains is constructed in relation to each other. Living in a passive house at a far distance from work and shopping areas encourages use of transportation in a manner that might be unsustainable. As such product system services/provisioning systems should be developed in combinations that facilitate sustainable lifestyles. Housing development for example should be planned as hubs that integrate social facilities, transportation options, and communal utilities, thus requiring little resource intensity in their everyday use.

The infrastructure itself should be constructed with the most sustainable material and operated in an efficient manner. A PET bottle recycling plant that consumes excessive fossil fuel energy in the recycling process would defeat the purpose! Low material and energy input, durability, reparability and easy maintenance are key criteria for developing such infrastructure.

With effective facilitators and good enough infrastructure, attitude becomes less relevant – in this case, sustainable behaviour becomes the easier option. This is somewhat analogous, though in an opposite effect, to the market bypassing consumer needs to provide new products and financing options and then creating the “need” for them among consumers. On the reverse side, where the facilitator is weak and infrastructure unsustainable, attitude becomes key to moving the system. Government leadership, strong social movements, active consumer citizenship, etc, can contribute to this.

5 Four steps beyond consumer scapegoatism

Policy framing should include not only demand-side, individualistic expressions of green consumerism but reflect the institutional, structural and cultural determinants of consumption (Koos 2011, Prince et al 2002). Here the role of government policy is important in creating the right environment that supports and facilitates SC. Policy should make SC the ‘default’ option by eliminating the most unsustainable options from the market, removing obstacles to sustainable lifestyles, and facilitating a translation of pro-sustainability attitude to deeper changes in behavior beyond just purchasing of green products. It is important that SC is seen as possible out of the market place, that it involves not only reforming of product choices and purchasing habits but also of values, reorganization of ways of meeting needs and redefining the notion of societal progress that is now held captive by snappy economic-growth statistics and charts. It is currently plausible and feasible to evaluate development not as abstract numbers but in reflection of societal well-being and ecological health.

This section highlights four policy approaches that can shift society beyond green consumerism. While some of the proposals include low-hanging fruits (and selective aspects of them have in fact been implemented to varying extents in some places), others reflect emerging knowledge from research. The role of science and research is crucial, not the least in helping policy makers understand the implications of unsustainable consumption but also in setting practical, realistic and effective targets for consumption to stay within ecological limits while enabling what Jackson (2009) has called shared prosperity. The four approaches are:

- i. Taking out the bad options from the market – or making them less desirable
- ii. Integrating measures of well-being in our accounting for development
- iii. Encouraging grassroots innovation and building communities
- iv. Defining limits of resource extraction and pollution

5.1 Take out the bad options (Choice- editing)

The large choice of unsustainable, indistinguishable products in the market, competitive pricing and aggressive advertising has made it easier to go with the more unsustainable options than the better alternatives. This is perpetuated by sustainable options being presented as niche, and more expensive products. Given the scope and urgency of the issue of sustainability, and considering the multiple influences on consumer decisions, it is not practical to place the burden on consumers. The paradox of SC in the contemporary economic system is that the consumer might be at the centre of the consumption activities, but he or she is not the most powerful stakeholder in the value chain. The UK Sustainable Consumption Roundtable (2006, P 16) recognises this challenge and advises that “the lead for ensuring environmental stewardship must lie higher up in the supply chain.” One of the approaches is to take the unsustainable options out of the market – a concept also known as choice-editing (Maniates 2010).

Governments have always used specified sets of factors to filter out options available to citizens – control of firearms, for example, for public safety reasons. Similarly, manufacturers and service-providers use criteria such as profitability and available technology to decide which products and services to offer. Retailers have to decide from millions of products on which ones to shelf. Lifestyles are a function of the options available to people – put differently, final choices available to citizens and consumers are a reaction to government policy, manufacturers’ and service providers’ choices, and retailers’ decisions on what to or not to shelf. Consumer choices have always been edited.

Traditionally most choice-editing criteria used in public policy has been based on economic growth, health and safety. However, pressing issues related to sustainability

demand that environmental criteria be used - setting sustainability standards or minimum bars below which products and services are not allowed on the market. An example of governmental choice editing driven by sustainability concerns is the phasing out of highly inefficient incandescent light bulbs from domestic use in Australia and the European Union, and the simultaneous encouragement of energy efficient LED lighting. Applied to SC, choice-editing is about making the unsustainable option either unavailable or less desirable, or the more sustainable option the more desirable and easily accessible – the “default” option.

Sustainability should be an integrated criterion through which products and services are filtered. Taking the train is currently more expensive than flying, although the previous is a more sustainable option. Likewise, most housing designs encourage occupants to buy washing machines, gardening tools per apartment, even if the equipment is rarely used and can be easily shared. Granting permits for housing construction should favour collaborative consumption, and integration of product-system services. Some criteria for choices that could be edited out include: those that are highly resource consumptive and for which there are better alternatives/substitutes, especially products that are made from non-renewable materials; products with waste that is hardly re-useable, difficult to process or harmful to the environment. Edits should prioritise needs over wants, services over material products, and social/community provision over individual. Cigarettes, for example, have been demonstrated to be unhealthy to the individual, cause family distress, and take up substantial amounts of government health budget; there reason for them to be edited out!

Research is needed in understanding impacts of products and consumption patterns and how to use this in setting criteria that are feasible to implement and effective in solving the problem without creating negative social and environmental consequences. While editing out more unsustainable options, governments should simultaneously provide incentives that will introduce more sustainable ones. In Japan, for example, the government uses the Top Runner Approach to encourage the market for appliances to be increasingly efficient. Efficiency standards are pegged equivalent to the most energy efficient product commercially available in a given product category. Manufacturers must then ensure that by a given deadline the average efficiency of all new products within that category conform with the new benchmark (Komiyama and Marnay 2008). Government would have a critical role to play not only in setting direction but also in “nudging” the market towards adoption or development of viable alternatives, and the consumer to adopt new forms of satisfying their needs. Choice-editing can be effective even when there is yet no pro-sustainability behaviour and there is a pressing need for change. Effective facilitators and properly designed systems of provision would, by default, edit out bad product options and unsustainable behavioural patterns.

5.2 Measure Well-being not (only) growth

At the heart of consumption is the drive to be better, for people to lead happier lives (Harrison et al 2005, Hobson 2009). If that is ignored in the parameters of how society measures progress, then the primary motives of consumption are kept out of efforts to achieve SC. Indicators we use in measuring society emphasize which aspects should be encouraged. The widely used GDP has economic dynamism as a priority; in a society where growth has become an end to itself, human well-being has become subservient. A nursing mother’s time with the new-born baby does not contribute to GDP growth; neither do non-consumptive leisurely activities like taking a walk, nor does helping a friend in the garden count. The things which experience and research show that make people happy without spending money – a sense of belonging to and trust in community, a meaningful contribution to society, physical health, love - have little direct resonance on the GDP. Instead spending on cancer

treatment or paying insurance against robbery stimulates GDP growth. It's ironic; our parameters of economic success come at the expense of our own happiness!

One suggestion on increasing well-being is to reform the working culture, e.g. through reduction in working hours, four-day weekends, flexible time schedules, working from home, etc. Besides the easy benefits of reduced stress, increased association, and more available time to engage in non-consumptive leisure activities, combining less time on the job with self-provisioning would foster creative approaches to meeting needs without being consumptive. People spent most of their daily lives engaged in gainful employment from which they earn the income to sustain themselves. The informal economy and activities such as mothering, joining clubs, etc, would be valued for their contribution to well-being of society as a whole. Community infrastructure such as churches, parks, town hall gatherings, skills and goods exchange centres, cooperatives, etc, would also take precedence over allocations for second family homes and car parks.

How governments measure progress should integrate indicators for well-being, and not presume that economic growth necessarily translates to increased well-being. There are primitive starting points to build upon: e.g. the Genuine Progress Indicator, the Human Development Index, the Human Wellbeing Index (HWI). The Human Development Index was developed to encourage people-centred development policies; instead of national income accounting it does a comparative measure of life expectancy, standards of living, education, and literacy (see Human Development Reports at <http://hdr.undp.org/en/>). The Gini Coefficient provides an indicative measure of income inequality – a measure that has been known to affect consumption and lifestyles (see, for example, the World Inequality Database: http://www.wider.unu.edu/research/Database/en_GB/database/). The Ecological Footprint is being increasingly used to indicate the impact of our consumption on the planet and resource potential for future generations. Admittedly these alternative measures are still being developed, and do not yet have the quantitative number-crunching potential that makes GDP easy to employ. However, an attempt to measure the happiness of citizens by token insertion of questions in a national survey where market abstractions reign supreme is not nearly enough (see for example the UK efforts to measure national well-being: <http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html>). The whole evaluation platform needs to be restructured, and the policies and infrastructure of the society changed in order for them to foster elements that have been shown to increase well-being and equity.

Some countries are already making attempts at integrating well-being in their measurements. Examples in Asia include Thailand and Bhutan (Akenji, 2012). Thailand's Sufficiency Economy approach acknowledges interdependency among people and with nature, and aims for the people to live in moderation and be self-reliant (Chalapati 2008). This guiding philosophy was introduced by the King to guide for the country's sustainable development instead of becoming an "economic tiger". In Bhutan, development is guided by Gross National Happiness (GNH) – to maximize the happiness of its people, enabling them to achieve beyond the conventional income-based measures of development (see Gross National Happiness Commission website. www.gnhc.gov.bt/). GNH was made an official national measure by the previous king and has been endorsed and promoted by the current one (Thinley, 2005). The country has been making efforts to develop ways of measuring GNH, and to embed it in its strategic plan "Bhutan 2020: A Vision for Peace, Prosperity and Happiness" (Royal Government of Bhutan 1999). GNH is currently pursued through a set of four key strategies, known as the four pillars: sustainable and equitable socio-economic development; conservation of environment; preservation and promotion of culture; and promotion of good governance.

While examples from Bhutan and Thailand are early experiments at national scale, they are indications of government will to use facilitators that place well-being at the centre of

development. More research is needed to support such efforts, to develop practical indicators for well-being and their integration in national planning.

5.3 Encourage grassroots innovation

One of the problems facing SC programs is that it has to a huge extent been expert-driven, which has tended to circumvent accumulative societal wisdom and to disenfranchise communities of practice (Barber and Luskin 2012). Attempted solutions have largely been market driven and technical, ignoring behavioural aspects. Furthermore, there is the challenge with deployment of top-down government sanctioned programs of finding the right societal scale that would engage constituents, promote ownership and enable creative agency². Yet there are disparate initiatives in a varied nomenclature of communities aimed at similar objectives as sustainable consumption, even if they are termed differently – e.g. healthy lifestyles, one planet living, low-carbon neighbourhoods, etc. These initiatives are at the heart of the practical shift to sustainable consumption, and need to be incorporated in the broader attempt at socio-technical transitions (Geels and Schot 2007). There is need to shift away from or at least engage both expert driven, top-down solutions as well as bottom-up practical experimentation as demonstrated by grassroots innovative solutions. More needs to be done not only to protect and/or build sustainable communities, which already provide early solutions, but also to draw lessons from them as microcosms of broader systems.

Transition towns, local currencies, local farmers' markets, voluntary simplicity provide examples of budding ways of socio-economic self-organisation at grassroots level. For example, Hielscher et al (2012, P 10) describe Transition Initiatives as: "groups of people who are keen to develop a community-led response to fossil fuel depletion and climate change. The aim is to organise to local people to enhance energy related consumption practices. These practices are directed towards anti-consumerism and anti-growth and try to influence the social, infrastructural and cultural context which gives meaning to actions." At this scale, people feel more connected and a part of a community they can trust and understand how it operates; this encourages individual responsibility within a broader supportive context. Grassroots innovation allows room for people to design lifestyles that may be different from the mainstream but more adapted to their needs.

The potential impact of communities is captured by the growing literature on "grassroots innovation" (Brown and Vergagt 2012, Hielscher et al 2012, Frossoli et al 2012), or niche experiments that potentially can show the way forward to large-scale socio-technical transitions towards a more sustainable society (Hielscher et al 2012). Grassroots innovations provide "intrinsic benefits" – environmental impacts and socio-economic impacts such as job creation, training and skills development, personal growth, a sense of community, social capital, improved access to services and facilities, health improvements, greater civic engagement. They also provide "diffusion benefits" – the potential to generate transformations which individuals, "stuck in incumbent socio-technical regimes, are powerless to change" (Hielscher et al 2012 P 4).

Those engaged in sustainable grassroots innovation already have the appropriate attitude. What is needed is facilitators for the sustainable options to flourish (from niche to society-wide scale) and infrastructure to enable sustainable practices. Part of the transition to SC needs encouragement of small-scale production in households and communities (license regional micro-breweries and local drinking pubs clubs); encourage shared participation, co-

² An example of this can be seen during discussions within the EU to bail the economy of Greece out of a potential collapse. No citizen groups were involved in the negotiations, which were carried out by banks and the government, and yet the consequences had far-reaching effects on the lives of Greek citizens. Greeks took to the streets to protest and have largely rejected the agreement that was arrived at by bureaucrats and businesses.

operatives and community ownership (build community-run schools, public libraries and shared laboratories for experimentation, open more parks, accommodate neighbourhood coffee and tea houses); shared infrastructure (grant building permits to housing infrastructure that encourages communing - e.g. shared laundry equipment); creative engagements and skills (for crafts, shoe mending, cloth repairs, canning and food preservation, etc); recognise (through awards) self-supporting sustainable communities (e.g. those that together reduce their electricity consumption); avoid private profit from essential services (like healthcare and education) and make them affordable; make very deliberate efforts to integrate citizens in policy design (e.g. through citizen panels) and civil society organisations. An additional benefit of this approach is that it builds self-reliant communities - that can feed, clothe, shelter themselves.

5.4 Define limits of resource extraction and pollution (Ecological reform)

The economics and politics behind this idea might be complicated, but the science is quite clear on this – we cannot continue to extract natural resources indefinitely to feed economic growth (Bleischwitz et al 2009, IEA 2009, Meadows et al 1972), and that the waste at the end of our consumption and production processes is harming the planet upon which we depend (IPCC 2007, Rockström et al 2009, Hotta 2011). We thus need to set ecological limits to how much and how fast we extract and pollute. A start is to place a moratorium on non-renewable materials that are getting exhausted as well as restrictions on pollutants that are harmful to the environment and human health. This should be complemented with strategies for absolute reductions in material use, and a shift towards cultivation and use of renewable resources where needed. A review of the concept of waste is needed, which should involve reduction in waste generation and prioritization of reusable and recyclable materials over non-reusable alternatives. Cultural and technical changes, such as quality assurance for product reusability, reparability, durability, sharing, could have substantial impact in reducing need for additional resource use. Guiding policy concepts such as the Sound Material Cycle Society by Japan (Hotta 2009) are good starts. The climate change debate also becomes even more relevant under these circumstances – specifically with emerging knowledge that currently accepted targets for reduction of greenhouse gases under the Kyoto Protocol (which in themselves are not being met) are not nearly enough!

Several researchers have proposed facilitators to slow down resource extraction and pollution. An example is the approach of ecological tax reform (Jackson 2009). It suggests that taxes should be shifted away from economic goods to economic bads – for example a policy shift away from taxing income to taxing resource consumption and pollution – again, the burden should not be on consumers. Such policies should emphasize the value of virgin materials, non-renewable resources, regeneration pace of renewable materials, heavy pollutants, etc. Complementarily the reform should remove disincentives for reform – such as perverse subsidies on fossil fuels. While such reform can see relative reductions, the economic system needs to be brought to within safe ecological limits.

It remains unclear how to establish ecological limits. This is an area where science and research could be very instrumental, and where establishing a policy-science interface could facilitate things. There are emerging examples already that could guide government policy in staying within ecological limits: the concepts of *planetary boundaries* – earth-system processes which human activity must operate within their limits in order to avoid reaching irreversible tipping points (Rockström et al 2009) - and the *ecological footprint* - a measure of how consumption of natural capital contrasts with the planet's regenerative capacity (Wackernagel, and Rees 1996). There are still scientific and technical challenges to fully deploying these theoretical approaches, however, policy messages and instructive directions for natural resource policy can already be clearly discerned. The challenge is to reduce our footprint on the planet, and to operate within safe planetary boundaries.

6 Conclusion

Green consumerism uses the same system of materialism which has been diagnosed as unsustainable and which puts the onus upon the consumer take charge of the problem, despite the demonstration that in the current capitalist system the consumer is not king and that it would need substantial macro changes and systemic transformation to achieve the shift to SC. This is consumer scapegoatism. The argument does not relinquish the consumer of his/her responsibility, of which there are many; rather it recognises the limits to green consumerism as a driver of sustainability and highlights the risks that continuous consumerism, albeit green, could drive the planetary system beyond recoverable limits of resource extraction, social dissatisfaction and rampant pollution.

The Attitudes-Facilitators-Infrastructure (AFI) framework provides a comprehensive approach to designing policies for sustainable consumption. It proposes three elements that operate in concert to enable sustainable consumption at a systems level: the right attitude from stakeholders; facilitators to enable actions reflect attitudes; and appropriate infrastructure that would make sustainable lifestyles the default option. Policy framing, based on the AFI framework would integrate the following characteristics:

- i. Engage all stakeholders; allocation of roles in policy should reflect stakeholder salience
- ii. Provide agency, supported by training and education
- iii. Recognise the critical role of social and physical infrastructure
- iv. Tap into local resources (e.g. skills, knowledge, renewable material, etc) to build community wealth rather than individualistic material accumulation
- v. Be dynamic, to be able to move the system from current status through a transition
- vi. Lead to overall decrease in consumption levels while providing equity

References

- Akenji, Lewis. 2012. Global Outlook on SCP Policies: Asia-Pacific. In *Global Outlook on Sustainable Consumption and Production Policies: Taking Action Together*, UNEP
- Akenji, Lewis, and Magnus Bengtsson. 2010. "Is the Customer Really King? Stakeholder Analysis for Sustainable Consumption and Production Using the Example of the Packaging Value Chain", in *Sustainable Consumption and Production in the Asia-Pacific Region: Effective Responses in a Resource Constrained World*. IGES, Hayama, pp. 23-46.
- Akenji Lewis, Hotta Yasuhiko, Bengtsson Magnus, and Hayashi Shiko. 2011. "EPR policies for electronics in developing Asia: an adapted phase-in approach". *Waste Management and Research*, September 2011 29: 919-930.
- Autio, Minna, Eva Heiskanen, and Visa Heinonen. 2009. "Narratives of 'green' consumerism – the anti-hero, the environmental hero and the anarchist". *Journal of Consumer Behaviour*, 8: 40-53
- Barber, Jeffrey and Jack Luskin. 2012. "Connecting Communities of Practice in the Movement towards Sustainable Production and Consumption". Paper presented at 3rd SCORAI Workshop, "Challenging Consumerism: Toward Living Well Sustainably", March 8-10, 2012 at the University of British Columbia in Vancouver, Canada
- Bleischewitz, Raimund, Paul J.J. Welfens and Zhongxiang Zang (Eds). 2009. *Sustainable Growth and Resource Productivity: Economic and Global Policy Issues*. Greenleaf Publishing, Sheffield

- Brown, Halina Szejnwald and Philip J. Vergragt. 2012. Grassroots Innovations: Local Socio-technical Experiments and Systemic Change: the Case of the Residential Housing Stock". Paper presented at the workshop "Grassroots Innovations for Sustainability" 16-18th May 2012 at the University of Sussex, Brighton, UK
- Brown, Halina S., Philip J. Vergragt, Maurie Cohen. 2012. "Setting the stage: Three theoretical perspectives illustrated by the case of Passive House". in Cohen et al 2012
- Chalapati, Supaporn. 2008. Sufficiency Economy as a Response to the Problem of Poverty in Thailand. *Asian Social Science* Vol. 4, No. 7 Pp 3 - 6
- Chappells, Heathers and Elizabeth Shove. 2003. "The environment and the home." Paper for Environment and Human Behaviour Seminar, Policy Studies Institute: London, 2003.
- Clapp, Jennifer. 2002. "The Distancing of waste: Overconsumption in a Global Economy". In Princen et al 2002 P 155 - 195
- Cohen, Maurie J. (2005), Sustainable Consumption in National Context: An Introduction to the Special Issue" in Sustainability: Science, Practice, & Policy, Volume 1, Issue 1, spring 2005; <http://ejournal.nbii.org/>
- Cohen, Maurie, Philip J. Vergragt, Halina S. Brown (eds.). 2012. *Meeting the Crises of a Constrained World: Socio-Technical Transitions, Social Practices, and the New Economics*. (in print). Edward Elgar
- Consumers International. Undated. History of the Consumer Movement. Consumers International. <http://www.consumersinternational.org/who-we-are/we-are-50/history-of-the-consumer-movement>. Accessed 9 April 2012
- Daly, Herman. 1996. Beyond Growth: the economics of sustainable development. Beacon Press, Boston
- Desai, Pooran. 2010. *One Planet Communities: A Real-life Guide to Sustainable Living*. Wiley, West Essex.
- EC. 2008. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan. European Commission, Brussels
- EC. 2009. GDP and beyond Measuring progress in a changing world. European Commission, Brussels.
- European Parliament. 2010. Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products. European Parliament, Brussels.
- Fedrigo, D. and J. Hontelez. 2010. "SCP: An Agenda Beyond Sustainable Consumer Procurement". *Journal of Industrial Ecology*, 14: 10–12. doi: 10.1111/j.1530-9290.2009.00219.x
- Fuchs, Doris, & Lorek, Sylvia. (2005). Sustainable Consumption Governance - A History of Promises and Failures. *Journal of Consumer Policy*, 28, 261-288.
- Fuchs, D. (2005). Understanding business power in global governance. Baden-Baden: Nomos.
- Fressoli, Mariano, Adrian Smith and Hernan Thomas. 2012. "Grassroots Innovation Movements: enduring dilemmas as sources of knowledge production". Paper presented at the workshop "Grassroots Innovations for Sustainability" 16-18th May 2012 at the University of Sussex, Brighton, UK
- Geels, Frank W., and Johan Schot. 2007. "Typology of sociotechnical Transition Pathways", *Research Policy* 36 (2007) 399–417
- Ha, Huong, Ken Coghill, and Elizabeth Ann Mararaj. Current Measures to Protect E-Consumers Privacy in Australia. In Chen, Kuanchin and Adam Fadlalla (Eds). 2009. *Online Consumer Protection: Theories of Human Relativism*. IGI Global, Hershey. Pg 123 – 150.
- Harrison, Rob, Terry Newholm and Deidre Shaw (Eds). 2005. *The Ethical Consumer*. Sage, London.
- Hartmann, Patrick, Vanessa Apoalaza Ibenez and F. Javier Forcada Sainz. 2005. Green Branding Effects on Attitude: Functional versus Emotional Positioning Strategies. *Marketing Intelligence and Planning*, 23(1), pp. 21-30.
- Herring, Horace and Steve Sorrell, eds. 2009. *Energy Efficiency and Sustainable Consumption: The Rebound Effect*. Palgrave 2009
- Hielscher, Sabine, Gill Seyfang and Adrian Smith. 2012. "Grassroots Innovation for Sustainable Energy: Growing Alternative Consumption Practices Through Civil Society Movements". In Cohen et al 2012
- HM Government. 2005. *Securing the Future: delivering UK sustainable development strategy*. Her Majesty's Government. London.
- Hobson, Kertsy. 2009. "Competing Discourses of Sustainable Consumption: Does the 'Rationalization of Lifestyles' Make Sense?", in Tim Jackson (Ed) *The Earthscan Reader in Sustainable Consumption*. Earthscan, London, pp305 – 327
- Hotta, Yasuhiko. 2011. Is Resource Efficiency a Solution for Sustainability Challenges? Japan's Sustainable Strategy and Resource Productivity Policy in the 21st Century. In S.A.P.I.EN.S. Vol.4 No.2.
- IEA. 2009. *World Energy Outlook*. International Energy Agency, Paris.
- IPCC. 2007. *Climate Change 2007: Mitigation. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, Cambridge University Press.
- Jackson, Tim. 2005. *Motivating Sustainable Consumption: a review of evidence on consumer behaviour and behavioural change, a report to the Sustainable Development Research Network, 2005*. Centre for

- Environmental Strategy, University of Surrey. <http://www.esrc.ac.uk/my-esrc/grants/RES-332-27-0001/outputs/read/a19ee7e8-6fff-49f9-9767-48f30ef6b8b4>. Accessed 18 April 2012
- Jackson, Tim (ed). 2006. *Earthscan Reader in Sustainable Consumption*. London, Earthscan.
- Kilbourne, W.E. & Beckman, S.C. (1998). Review and Critical Assessment of Research on Marketing and the Environment. *Journal of Marketing Management*, 14(6), July, pp. 513-533.
- Komiyama, Ryoichi and Chris Marnay. 2008. Japan's Residential Energy Demand Outlook to 2030 Considering Energy Efficiency Standards "Top-Runner Approach". Paper presented at the 2008 ACEEE Summer Study on Energy Efficiency in Buildings, Scaling Up: Building Tomorrow's Solutions, August 17–22, 2008, Asilomar Conference Center, Pacific Grove, California
- Lebel, Louis and Sylvia Lorek. 2008. Enabling Production-Consumption Systems. *Annual Review of Environment and Resources* 2008.33:241-275
- Maniates, Michael. 2010. Editing Out Unsustainable Behavior. In Erik Assadourian (Ed.) et al., *State of the World 2010: Transforming Cultures, From Consumerism to Sustainability*, W.W. Norton and Company, New York (2010)
- Markukula, Annu and Johanna Moisander. 2011. Discursive Confusion over Sustainable Consumption: A Discursive Perspective on the Perplexity of Marketplace Knowledge. *Journal of Consumer Policy*. Published online November 2011, DOI: 10.1007/s10603-011-9184-3
- Meadows, Donella H., Dennis L. Meadows, Jorgen Randers, and William W. Behrens III. 1972. *The Limits to Growth*. New York: Universe Books.
- Meadows, Donella, Jorgen Randers and Dennis Meadows. 2004. *Limits to Growth: the 30-Year Update*. Chelsea Green. 1-931498-58-X
- MOEJ, METI and MICJ. 2011. "Effects of the Home Appliance Eco-Point System Policy". Ministry of the Environment Japan, Ministry of Economy, Trade and Industry Japan, and Ministry of Internal Affairs and Communications. Available at http://118.155.220.112/english/press/2011/pdf/0614_01a.pdf. Accessed 14 May 2012
- OECD. 1997. *Eco-labelling: Actual Effects of Selected Programme*. Organisation for Economic Cooperation and Development, Paris
- OECD. 2002a. *Policies to Promote Sustainable Consumption: An Overview, Policy Case Studies Series*. Organisation for Economic Cooperation and Development, Paris
- OECD. 2002b. *Towards Sustainable Household Consumption: Trends and Policies in OECD Countries*. Organisation for Economic Cooperation and Development, Paris
- OECD. 2006. *Improving Recycling Markets*. Organisation for Economic Cooperation and Development, Paris
- OECD. 2007a. *CSR and Trade: Informing Consumers about Social and Environmental Conditions of Globalised Production*. Organisation for Economic Cooperation and Development, Paris
- OECD. 2007b. *Improving the Environmental Performance of Public Procurement: Report on Implementation of the Council Recommendation*. Organisation for Economic Cooperation and Development, Paris
- OECD . 2008a. *Environmental Policy and Household Behaviour: Evidence in the Areas of Energy, Food, Transport, Waste and Water*. Organisation for Economic Cooperation and Development, Paris
- OECD . 2008b. *OECD Environmental Outlook to 2030*. Organisation for Economic Cooperation and Development, Paris
- OECD. 2008c. *Promoting Sustainable Consumption: Good Practices in OECD Countries*. Organisation for Economic Cooperation and Development, Paris
- Princen 2002. "Distancing: Consumption and the Severing of Feedback". In Princen et al 2002 P 103 - 131
- Princen, Thomas, Michael Maniates, Ken Conca (eds.) 2002. *Confronting Consumption*. Cambridge Mass., MIT Press
- Rockström, J., W. Steffen, K. Noone, Å. Persson, F. S. Chapin, III, E. Lambin, T. M. Lenton, M. Scheffer, C. Folke, H. Schellnhuber, B. Nykvist, C. A. De Wit, T. Hughes, S. van der Leeuw, H. Rodhe, S. Sörlin, P.K. Snyder, R. Costanza, U. Svedin, M. Falkenmark, L. Karlberg, R. W. Corell, V. J. Fabry, J. Hansen, B. Walker, D. Liverman, K. Richardson, P. Crutzen, and J. Foley. 2009. "Planetary boundaries: exploring the safe operating space for humanity". *Ecology and Society* 14(2): 32.
- Royal Government of Bhutan. 1999. *Bhutan 2020: A Vision for Peace, Prosperity and Happiness*. Planning Commission, Royal Government of Bhutan. Available at <http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan005249.pdf>. Accessed 30 April 2012
- Røpke, Inge. 2009. "Theories of Practice – New Inspiration for Ecological Economic Studies on Consumption", *Ecological Economics* 68 (2009) 2490 - 2497
- Schmidheiny, Stephan. 1992. *Changing Course: A global business perspective on development and the environment*. World Business council for Sustainable Development. Geneva
- Schor, Juliet. 2020. *Plenitude: the new economics of true wealth*. Penguin Press, New York.

- Shove, Elizabeth. 2006. "Efficiency and Consumption: Technology and Practice", in Tim Jackson (Ed) *The Earthscan Reader in Sustainable Consumption*. Earthscan, London, pp 293-304.
- Spaargaren, Gert. 2003. "Sustainable Consumption: A Theoretical and Environmental Policy Perspective" in *Society and Natural Resources*, 16:687–701, Taylor & Francis Inc.
- Spaargaren, Gert. 2011. "Theories of Practice: Agency, Technology, and Culture Exploring the Relevance of Practice Theories for the Governance of Sustainable Consumption Practices in the New World-Order", In *Global Environmental Change* 21 (2011) 813 - 822
- Stiglitz, Joseph E., Amartya Sen and Jean-Paul Fitoussi. 2009. Report by the Commission on the Measurement of Economic Performance and Social Progress. http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf. Accessed 17 April 2012
- Sustainable Consumption Roundtable. 2006. I Will If You Will. National Consumer Council and Sustainable Development Commission. http://www.sd-commission.org.uk/file_download.php?target=/publications/downloads/I_Will_If_You_Will.pdf, Accessed 27 April 2012.
- Thinley, Jigmi Y., 2005. What Does Gross National Happiness (GNH) Mean? Keynote Speech at the Second International Conference on Gross National Happiness Rethinking Development: Local Pathways to Global Wellbeing, St. Francis Xavier University, Antigonish, Nova Scotia, Canada, June 20 to June 24, 2005. Available at www.gpiatlantic.org/conference/proceedings/thinley.htm 30 April 2012.
- UN. 1992. Agenda 21: Programme of Action for Sustainable Development, United Nations, New York
- UN. 2003. Plan of Implementation of the World Summit on Sustainable Development, United Nations, New York
- UNEP. 2005. Communicating Sustainability: How to Produce Effective Public Campaigns. United Nations Environment Program. Paris
- UNEP/Consumers International. 2006. Tracking Progress: Implementing Sustainable Consumption Policies, A Global Review of Implementation of the UN Guidelines for Consumer Protection. United Nations Environment Program/Consumers. Paris
- UNEP. 2007. Global Environment Outlook 4: environment for development. United Nations Environment Program. Paris
- UNFI. 2007. Responsible Investment in Focus: How Leading Public Pension Funds are Meeting the Challenge. UNEP Finance Initiative. Paris
- UNEP. 2008. Planning for Change: Guidelines for National Programmes on Sustainable Consumption and Production. United Nations Environment Program. Paris
- UNEP. 2009. Planning for Change: Mainstreaming Sustainable Consumption and Production and Resource Efficiency into Development. United Nations Environment Program. Paris
- Veblen, T. (1899). *The Theory of the Leisure Class - An Economic Study of Institutions*. New York: Macmillan Company.
- Wagner-Tsukamoto, Sigmund. 2009. 'Agency of Japanese Firms – Qualitative Insights From Grocery/Retail Markets,' *Journal of Business Ethics* 84, 1: 29-44. DOI 10.1007/s10551-008-9671-x.
- Wackernagel, Mathis. and William Rees. 1996. *Our Ecological Footprint: Reducing Human Impact on the Earth*. Gabriola Island, BC: New Society Publishers. ISBN 0-86571-312-X.