

# Sustainable Consumption within a Sustainable Economy – debunking buzzwords to develop the content

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**Abstract:** In 1992, one unambiguous result of the UNCED conference was the need for changing consumption and production patterns, with affluent countries taking the lead. For the 2012 UNCED, green economy is the theme dominating the agenda, and the question needs to be asked if this is finally an attempt to put into practice what was promised 20 years ago, or another diversion from what needs to be accomplished.

The green economy is less than sustainable development, which still provides the framework, but it has been gradually taking over the debate. Rather obviously, it does not substantially address the social dimension of sustainable development, and least so in terms of sustainable consumption: the minimum consumption to be guaranteed to allow for a dignified life (in other contexts called the ‘floor’ of the environmental space, or the *linea de dignidad*)

Regarding the upper limit of permissible consumption under a sustainable development framework, it turns out that a green economy approach does not respect that limit. It is in line with what has been called a form of weak sustainable consumption, but not with the strong sustainable consumption needed for the transition to a global sustainable development pathway (Fuchs and Lorek, 2005).

For all agents involved (governments, civil society organisations) this is a new challenge: buzzwords like sustainability or sustainable consumption are no longer sufficient to indicate intentions – they have too long been used for labelling plans and policies falling short of sustainability in the initial sense (in this paper: strong sustainability). Thus a more precise definition of the meanings associated with a specific use of the term sustainable consumption is needed to assess their possible contributions to sustainable development.

## 1 Sustainable Development - a convincing concept

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and

- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

(WCED, 1987)<sup>1</sup>

Sustainable Development still is a convincing concept. The fact that we do not come closer to it (in fact current trends go towards the opposite direction) does not make it superficial. On the contrary, humanity is facing a variety of serious threats which have worsened since the 'Brundlandt days', when the term became popular. On the environmental side we know about global warming and biodiversity loss, on the social side we observe increasing inequity, and economically we are confronted with the threats of peak oil and resource scarcity, the volatility of the financial markets and the vulnerability of the real economy to them. The reliance on growth, innovation and technological solutions constitutes a lock-in situation, a vicious circle increasing the problems instead of solving them. All this calls for radical changes (Tukker 2008). Environmental modernisation, the essence of past environmental politics and of the Green Economy concept, fails to provide or at least promote them.

## 2 Green Growth – wishful thinking postponing the problems

Green growth is a political catchword (OECD, 2011) but not able to solve the problems on the global scale. In Asia, where it was strongly endorsed by Korea in the Great Recession, it can give helpful guidance for those countries which indeed have to increase the national wealth to allow their citizens to leave the stage of unsustainable under-consumption (note that this also requires a fair distribution policy – today the majority of the world's poor are not living in poor but in middle income countries). It has to be strongly questioned, however, if it can serve as a model for industrialised countries where (even more than the growing relative poverty) structural overconsumption is the dominating threat for sustainability.

The problems with green growth, which is also at the core of the Green Economy concept (UNEP, 2011), as with all kind of growth concepts is that it depends on the promise of technological solutions (for instance for the salvation of energy problems). However, this is a cheque drawn on the future, and nobody can be sure if it will be honoured. As there can be no certainty about future inventions, the precautionary principle requires to rather preparing for the case of their non-appearance, endorsing a technologically pessimistic policy. Such a policy would still try to stimulate green innovation but also take measures (more often than not they turn out to be no-regret options) to solve sustainability promises even if the technology developments disappoints high flying hopes to overcome environmental limitations.

The  $I=P*A*T$  equation (Ehrlich and Holdren, 1971) illustrates the problem. It disaggregates the (environmental) impact (I) into three components, population (P), affluence (A), and technology (T). A is defined here as GDP per person and T as the efficiency improvement per unit of GDP.

There is ample evidence that the impact of our economies has to be reduced if sustainability is ever to be achieved ( $I=\downarrow$ ). According to all forecasts the world's population will grow ( $P=\uparrow$ ), at least until the midst of the century (Lutz et al. 2008; United Nations 2011). The Green Growth/Green Economy approach explicitly relies on a concept that promises and encourages growing affluence ( $A=\uparrow$ ). The inevitable consequence is the assumption that technology development will compensate for both, about 30% population growth and nearly 400% economic growth by the midst of the century (OECD 2012), while still significantly reducing the environmental impacts. Halving them would thus require an efficiency increase of a factor  $1.3 * 3.9 * 2 \approx 10$ . While a factor 10 reduction in resource consumption has been advocated earlier (Schmidt-Bleek, 1992), it will require efficiency increases in resource pro-

<sup>1</sup> Frequently, only the first sentence is quoted as the 'Brundtland Definition' of Sustainable Development, which leaves more space for interpretation and suggesting priorities more in line with the prevailing economic paradigm.

vision, production, product design, distribution and not consumer satisfaction (Spangenberg et al., 2010).

Whether the future development of technology will deliver such improvement rates is insecure ( $T=?$ ). Anyway, technological innovation will not provide all necessary solutions, and where it offers options their application will depend on changed consumer habits. This was already the case in the past, whenever environmental pollution was significantly reduced. In the OECD countries energy and material use efficiency have indeed been increasing, but so has energy and material consumption, due to economic growth (in Germany energy consumption has been rather constant since about 40 years, and material consumption since 15 years). Yet, there are rebounds from efficiency increases, limiting their effects to less than the technological potential. For instance, the development of new products may induce the purchase of more products (see the mobile phone experience, Røpke, 2003), or decreasing prices may stimulate more consumption (each win-win situation is a rebound case). On the macro level, efficiency increases are well known to stimulate further economic growth – this is even one of the main arguments for promoting them in current politics (OECD 2011; European Commission, 2011). In fact, it seems to be a matter of belief whether technological development can meet the challenge of reducing environmental impacts despite population and affluence growth, at least until the midst of the century (the longer growth lasts, the more difficult a technological compensation will become). An optimistic view is promoted by authors like von Weizsäcker et al. (1998), a pessimistic one for instance by Heinberg (2003), Hirsch (2005) and Trainer (2007).

Thus looking at the  $I=P*A*T$  formula again and taking into account the precautionary principle, unforeseeable development of technology ( $T$ ), and the need to reduce the environmental impact ( $I$ ) it is recommendable to decrease affluence ( $A$ ) to avoid disaster in the event that technology fails to solve the problems. This is why Peter Victor (2010) calls for “de-growth by design, not by disaster”.

To summarise, considering the ecological challenges we face, slight adjustments within the system relying mainly on technological solutions and an environmental modernisation / green growth approach runs the risk of sooner or later of encountering long expected disasters from a peak in oil supply to climate change and ecosystem collapse due to biodiversity loss (Hooper et al. 2012). At best, this approach can postpone disasters (Garner 2000). In fact, it is rather a greening approach for selected products, for some individuals or a few lifestyle groups than a coherent vision for a sustainable future.

### **3 A Sustainable Economy – a necessary condition for sustainability**

The Green Economy as discussed at UNCSD cannot provide a solution, but a substantial greening of the economy would be one of the corner stones for the solution of global environmental and social problems. For this behalf, a sustainable economy is necessary, i.e. an economy based on the key principles of sustainable development referred to by the Brundtland Commission in its report “Our Common Future” (WCED 1987) and quoted in section 1. Thus it should be an economy based on sustainable (resource) consumption, defined as meeting human resource needs (with priority given to improved resource access for the poor) within environmental limits. Resources in this context include all sources of materials and energy, and the sinks for pollutants.

The philosophical basis of this approach is the standpoint that from an ethical point of view, resources are the common heritage of mankind and all people on Earth hold the same right to get a similar share of these resources. The resulting equity in resource use entitlements defines people’s “fair share” in resource use. This right to equitable resource access

does not only apply to people presently living (intra-generational justice), but also to those people to come (inter-generational justice).

But analysing the lifestyles of the majority of Europeans and Americans (Galbraith, 1958; Schor, 1998), and the third of the global consumer class located in the low and middle income countries (Worldwatch Institute, 2004), it can be seen that they neither tend to restrict their consumption to their own fair share nor take care to ensure access of others to their fair share. So, how to reduce their (or, the authors being from Europe, our) environmental impacts? Technical solutions have to play a role, of course: promoting a Green Economy does not mean to be technology averse but risk averse (see table 1).

Table 1 Trade of matrix for Strong and Weak Sustainable Consumption approaches

		Living situation for global population	
		Technology can solve the problems	Technology can't solve the problems
Policy approach	Weak Sustainable Consumption Policy	High material standard of living for some. Less poverty for others?	Living in misery for most
	Strong Sustainable Consumption Policy	High human well-being for most	Balanced living for most

Lorek 2010, adapted from Costanza, 1989

Several environmental problems of former times have been pretty much solved in the industrial countries; take for instance pollutants like SO<sub>2</sub> causing acid rain which was solved through technical means (scrubbers), Nitrate pollution from detergents causing eutrophication which was solved by regulations enforcing changes in product composition. The energy consumption of some individual appliances has been reduced through market mechanisms supported by labelling and in Japan the top-runner approach. All these important and extremely necessary contributions are either making production processes (sustainable production) or the products themselves less unsustainable (design for sustainability / sustainable products). The theoretical basis for such measures are concepts like Ecological Modernisation (Ayres and Simonis, 1993; Weizsäcker et al., 1998), Industrial Ecology (Ayres et al., 1996; Erkmann, 1997) Integrated Product Policy (IPP) (Rubik and Scholl, 2002; Scheer and Rubik, 2006) or Cleaner Production (Fresner, 1998). However, as argued already in section 2 technological solutions are not enough (Beck, 1986; Cohen, 1997) but just accelerate the “treadmill of production” (Schnaiberg, 2002).

Instead it is a Sustainable Economy we have to strive for, an economy with sustainable consumption and production patterns<sup>2</sup> which seeks to achieve a high ratio of need fulfilment while minimising resource use or, in other words, is an effective contribution to human well-being per resource use as shown in figure 1.

<sup>2</sup> As production is a form of resource consumption we use the term ‘Sustainable Consumption’ to cover both, sustainable production and consumption, in the remainder of the text.

Figure 1. Sustainable Consumption as a relation of human well-being and resource use

$\text{Sustainable Consumption} = \frac{\text{Need fulfilment}}{\text{Resource use}} \text{ or in other words } \frac{\text{Human well-being}}{\text{Resource use}}$
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Figure 2 shows a factor analysis, illustrating one way of how the flow from resources used to contribute to human well-being can be disaggregated into various components. While the choice of components is of course arbitrary, it still allows new insights, and being a tautology, it cannot be wrong.

Figure 2. Effective resource use for human well-being – factorisation of Sustainable Consumption

$\text{Sustainable Consumption} = \frac{\text{physical input}}{\text{resource used}} \times \frac{\text{product produced}}{\text{physical input}} \times \frac{\text{service provided}}{\text{product produced}} \times \frac{\text{service consumed}}{\text{service provided}} \times \frac{\text{human well-being}}{\text{service consumed}}$
$\text{Sustainable Consumption} = \text{sourcing efficiency} \times \text{production efficiency} \times \text{product efficiency} \times \text{service efficiency} \times \text{effective provision of human well-being}$

Source: Lorek 2010

- *Sourcing efficiency* strives, for instance, for efficient mining to generate the physical input needed for production processes, reducing the ‘ecological backpack’, i.e. the amount of mobilised but not used material.
- *Production efficiency* seeks to ensure a high ratio of products generated from the bio-physical input provided (materials, energy and land, plus biological resources like biodiversity).
- *Product efficiency* is about efficient service supply from the produced products, a product-inherent characteristic (e.g. efficient appliances).
- *Service efficiency* increases the factual rate of services consumed from the services provided (e.g. sharing instead of individual ownership).
- *Effective provision of human well-being* is about the contribution of the service consumed to the well-being of the consuming individual (satisfying and thus good vs. bad, non-satisfying products).

The components chosen suggest intervention points supporting sustainable (resource) consumption, each of them requiring a specific policy and technology approach to increase the overall efficiency throughout the production-to-consumption chain. Sourcing efficiency, production efficiency and product efficiency mostly focus on efficiency gains based on technological developments. The first two fall under the category of sustainable production; the third is about more sustainable products. These three aspects are already quite conventional intervention points in environmental policy and well covered by research. Service efficiency identifies gains from the societal organisation of consumption and from consumer attitudes.

This aspect plays an increasingly important role in the discourse and praxis of Sustainable Consumption (Spangenberg, 1995; Mont, 2000; Halme, 2005; Manoochehri, 2006; Tukker and Tischner, 2006) and has to play a role in a search for a Sustainable Economy.

The most challenging intervention point is the effective provision of human well-being. At first glance it refers to the quality of services and the degree to which they meet human needs. The well-being effect can be expected to be quite high when the service fulfils real needs like food or shelter, respect or communication (Max-Neef et al., 1989). As the marginal utility declines with increasing supply (let alone saturation effects), it is expected to be significantly lower if the service is one's 20th pair of shoes, however efficiently they have been produced in the previous steps.

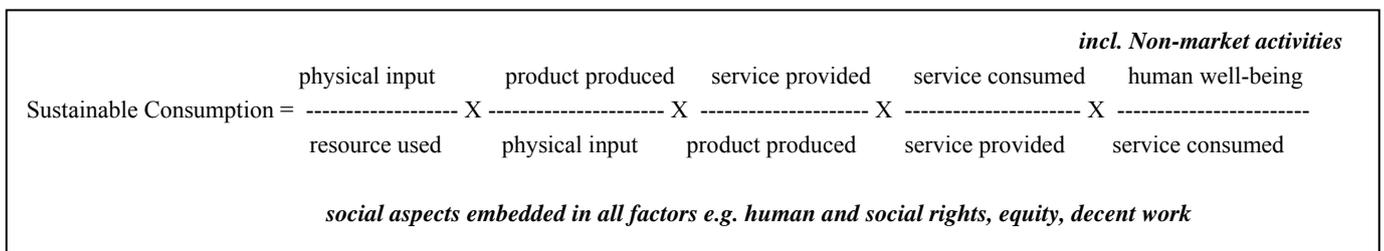
On a second look, the inclusion of human well-being in the concept points towards two crucial questions: "For what should the available resources be used best?" and "What contributes to human well-being beside goods and their services?"

Regarding the first question the normative approach of Sustainable Consumption implies channelling resource use towards those consumers where the marginal utility is highest, i.e. the have-nots of any society. This indicates in turn the need to ensure that if reductions in material consumption are required, they have to fall on those with the lowest marginal utility of consumption, the wealthy (Beddoe et al., 2009). Thus the factor analysis gives hints for the operationalisation of both, the key concepts of the Brundtland definition, and the frequently cited Sustainable Consumption definition of the Oslo Symposium (Norwegian Ministry for the Environment, 1994): prioritise the needs of the world's poor within the concept of limited resources.

The latter question opens the perspective to recognise that further, non material factors are of equal importance for the wellbeing of humans, like safety, belongingness, social coherence, equity, and social relations (Scitovsky, 1992; Rauschmayer et al., 2008).

The factor analysis as presented in Figure 2 appears "material" oriented. This perception is the result of a didactic decision to reduce complexity. As the questioning of human well-being indicates, the optimisation of material efficiency alone excluding social aspects will without doubt fail to meet the requirements of Sustainable Consumption (Rijnhout and Schauer, 2009). Therefore in Figure 3, we like to highlight explicitly that social and other non-material aspects are embedded the term human well-being but also in all other fragmentation factors. These social elements rank from basic social rights in general, like human rights or the right to decent work, via equity in access to production and consumption to strengthening the human and social capabilities for production and consumption by strengthening social inclusion and supporting more equity in societies.

Figure 3 Social and other non-material aspects of Sustainable Consumption



Lorek 2010

Note that in the whole factor analysis monetary values and thus markets do not play any role – they are neither excluded, nor are they essential for this description of consumption (Röpke, 2009). In fact, non-market activities like household production and voluntary work play an

important role as for example reflected in research on time use (Lorek and Spangenberg, 2002) and the UN Integrated Environmental and Economic Accounting system SEEA providing monetary and non-monetary satellite accounts complementing the system of national accounts; in 2012 the United Nations Statistical Commission adopted the SEEA as a global statistical standard (see UNStats, 2012). Such satellite systems can re-value the contributions of non-market based activities like family work, careing, charity or neighbourhood help (Egerton and Mullan, 2006; Schäfer, 2004; Schiess and Schön-Bühlmann, 2004). This approach partly inspired the ongoing debate on alternative measures of well-being (Stiglitz et al., 2009; European Commission, 2009).

#### 4 Making Sustainable Economies possible

As research on globalisation and sustainable consumption has already shown (Fuchs and Lorek, 2002), intervention points to foster Sustainable Consumption lie partly inside, partly outside the domain of household consumption decisions, national framework setting or even the regional (e.g. EU) sphere of influence. Recalling the factor analysis (figure 2), elements like resource extraction and production are part of the unsustainable consumption system; they quite often lie in developing countries where social unsustainability significantly more pressing than rich-OECD countries. Recognising that interventions follow the logics of specific actors (e.g. in developed countries), the solutions they provide may only shift problems if applied outside the context for which they have been developed, or with little care for external effects. Therefore it seems important to complement the experiences and efforts of sector-, place-, product- and consumer-oriented approaches with analytical perspectives and practical initiatives treating production and consumption in a Sustainable Economy jointly and in a global perspective.

Researchers and practitioners have explored and proposed many mechanisms for fostering the sustainability of production-consumption-systems. A literature review identified 11 main different ways in which sustainable production-consumption-systems could be made possible (Lebel and Lorek, 2008). They are presented in Table 2, ranging from initiatives which emphasize production activities to those which are more consumption related.

Table 2 Examples of enabling mechanisms for sustainable production-consumption systems

Enabling mechanism	Short description	Concerns, constraints or challenges
Produce with less	Innovations in production process reduce the environmental impact per unit made	Rebound effects
Green supply chains	Firms with leverage in a chain impose standards on their suppliers to improve environmental performance	Unfair control of small producers
Co-design	Consumers are involved in design of products to meet functions with less environmental impact	Inadequate incentives for firms to involve consumers
Produce responsibly	Producers are made responsible for waste from the disposal of products at the end of their life	Incentives for compliance without regulation may be low for many types of products
Service rather than sell	Producers provide service rather than sell products, this reduces the number of products made while still providing to consumers the functions they need	Difficult transition for firm and consumer to make as it requires new behaviours and values
Certify and label	Consumers buy labeled products. As labels are based on independent certification, producers with good practices increase	Consumers easily confused with too much information or lack of transparency & credibility of competing

	their market share	schemes
Trade fair	Agreements are made with producers that may include minimum price and other investments or benefits. Consumers buy products labeled as or sold through fair trade channels while producers get a better deal.	Mainstream trade still dominates. Hard to maintain fair trade benefits to producers when product becomes mainstream.
Market ethically	Reducing unethical practices in marketing and advertising would reduce wasteful and over-consumption practices.	Reluctance by policy-makers to tackle very powerful private sector interests with regulation.
Buy responsibly	Campaigns that educate consumers about impacts of individual products, classes of products and consumption patterns change behaviour overall.	Converting intentions and values into actions in everyday life is often difficult for consumers. Issues of convenience, flexibility and function still matter a lot.
Use less	Consumption may be reduced for a variety of reasons, for example, as a consequence of working less. There are many potential environmental gains from less overall consumption.	Dominant perception that using less means sacrifice. Less income and consumption may not automatically translate into better consumption impacts.
Increase wisely	Increasing consumption of under-consumers can be done in ways that minimize environmental impacts as economic activity expands.	Incentives for developed countries and firms to assist those in developing may be inadequate.

Lebel and Lorek 2008

## 5 Necessary policies for sustainable consumption in a sustainable economy

### 5.1 Heading the adverse wind

As pointed out before, Sustainable Consumption is usually not a topic on high-level political agendas and whenever it is, it is interpreted as Weak Sustainable Consumption calling for relative improvements e.g. through more efficiency, not absolute ones by setting limits, as this does not contradict mainstream thinking. Accordingly considerations on Sustainable Consumption are missing in precisely those institutions that contribute most to shaping patterns of consumption, like the WTO and big business organizations. With its explicit reservations on economic growth, especially Strong Sustainable Consumption is hardly in the short-term interest of powerful actors (Fuchs 2005).

The lack, if not total absence of support from powerful actors also influences the focus of those organisations which have taken up the challenge of making sustainable consumption a discussion issue. By (desperately) trying to find resonance and thus possibly have influence they steer the discussion to 'harmless' topics. An attempt to at least start a discussion on systemic changes within the so called Marrakech Process headed by UNEP/UNDESA by including agenda setting activities on "topics too hot to handle" in the 10 Year Framework of Programs failed immediately (SCORE Network, 2008). The OECD instead made huge efforts to explore the willingness consumers to pay for more sustainable goods and services (OECD, 2009).

Nevertheless, the barriers and adverse winds hindering Strong Sustainable Consumption do not change at all the ecological and social facts that we are facing. But they do influence the strategies developed on how to deal with them.

## 5.2 Carrot and stick to stimulate the public debate

To open up the debate on Strong Sustainable Consumption and to involve a broader audience, including the public as well as policy makers, a two-pronged strategy is necessary: that is, a carrot and stick approach.

The stick in this case is to create a sense of urgency. This means promoting the idea that reducing consumption is not an option to choose or to drop, but is going to happen anyway. There are evident ecological limits that we can either actively anticipate or passively live with the consequences of overstressing the limits. In any case, limits will substantially reduce economic growth (measured as GDP increment) and probably turn it negative. Ensuring a soft landing instead of a hard one may still be possible, but proper management of the challenge depends not least on the proponents of Strong Sustainable Consumption: they have to get their message across in due time (Lorek and Fuchs 2011).

While for other themes, from population to economic growth, scenarios abound, they are missing so far for Strong Sustainable Consumption which results in the paradox effect that e.g. the upcoming de-growth debate rather strengthens than challenges the growth paradigm (Berg, 2011). Coherent visions of a life under resource scarcity, in particular in a situation of peak oil, and how to maintain its quality in that case are rare and so far inconclusive. Coherent scenarios, however, would be a main tool to assess the social, economic and environmental impacts or cost of inaction, and the risks for social security from a local to global level.

Such scenarios would also illustrate the point that the alternative to substantial sustainability is not the status quo, but a situation characterised by social, economic and environmental unsustainability, of more conflicts and social tensions. On this basis, sustainability targets could be justified and communicated as means to avoid collapse by staying off the ecological limits, plus time roadmaps showing what to reach by when, and who has to contribute what. Research can (only) provide the first step here. Societal agreements on how to act on these recommendations as well as the control over the decisions made are the task of governance processes and thus of governments and society.

A helpful step, promising at least to clearly indicate how the general impact of consumption is developing, is indicator set for Sustainable Consumption being developed under the auspices of the European Environmental Agency. It explicitly strives to answer questions like ‘is the environmental pressure activated by consumption sustainable?’ (EEA and ETC/SCP, 2009) Assuming they will choose an appropriate methodology to answer such questions, the result is implicitly given: restricting the resource use per year to the annual carrying capacity of the planet.

The carrot in this case is to raise the awareness of the fact that a slimming of the economy, reducing its physical throughput, is not necessarily the disaster mainstream economics predicts, if we are prepared for it. Well-being in developed countries has for a long period already been successfully decoupled from economic growth. This needs to be communicated more effectively. Understanding and internalising alternative measures of well-being (New Economics Foundation, 2009; Stiglitz et al., 2009) can help to overcome growth addiction (van Griethuysen, 2009). It is important to sensitise people for the relevance of other elements of well-being beyond consumption, like wealth of time. Examples like the US initiative “Take Back Your Time” for

reducing working hours and extended holidays are a valid contribution to Strong Sustainable Consumption without explicitly focusing on consumption (Maniates, 2010). Also the starting public discourse on happiness can help to consider the limitations on increasing human well-being through material consumption as soon as it reaches and goes beyond a certain level of need fulfilment (Hofstetter and Madjar, 2003; Layard, 2005).

### 5.3 Demanding responsibility of governments

The current debate on Sustainable Consumption in political circles is characterised by the same epistemic fallacy as the discussions about the priority fields of action and the adequate tools for implementing Sustainable Consumption ten and twenty years ago. Information provision is considered the key tool, a panacea to solve sustainable consumption problems thereby shifting the responsibility to the consumers, once they are informed. The recently launched European Consumer Agenda could have pointed out that in a clearer way. It is subtitled with: ‘Boosting confidence and growth by putting consumers at the heart of the Single Market’ (European Commission - DG Health and Consumers 2012).

Compare that to the two key insights of sustainable consumption research of the last two decades: (i) the environmentally most relevant consumption clusters are food, housing and mobility (Lorek and Spangenberg, 2001; Spangenberg and Lorek, 2002), and (ii) hard policies like regulatory and economic instruments are most effective for changing consumption patterns (Rehfeld et al., 2007; ASCEE team, 2008). While the former is now pretty much accepted (EEA, 2010) (but still energy efficient light bulbs are used as a testimony of sustainable consumption, second hand clothing is promoted and fashion condemned), the latter insight has made no inroads to the mainstream policy debate but is still lingering at its fringes (much of that deficit is found with NGOs as well).

So is the information deficit a key problem, but located not with consumers but with policy makers? Is the measure of choice to communicate scientific insights on the effectiveness of different policy instruments to political decision makers in a more convincing way? Probably not: Governments have two reasons not to respond to such “news”, an ideological and a politic one. Politically, they are afraid of the consumer responses: intervening into consumption and phasing out unsustainable consumption options, as it would be their responsibility (Church and Lorek, 2007) (or choice editing as it is called lately) are suspected to be deeply unpopular with consumers and thus with voters. Ideologically, consumer sovereignty is claimed to be a key achievement of modernity which must not be restricted by politics. Behind this stands the neoliberal conviction that the market on its own provides optimal solutions, while each external intervention can only result in a diminished welfare provision – a counterfactual attitude popular in particular with and promoted by economists and the business sector.

Additional delay in taking action towards Strong Sustainable Consumption is caused by the retreat of government in favour of governance. In general the governance approach – for example, in the development of Sustainable Consumption Strategies or Action Plans – is applaudable. However, once agreements have been achieved by such processes, it is the task and duty of governments to implement, monitor and enforce them. As long as national governments understand their roles in the governance of Sustainable Consumption as one of a moderator providing opportunities for the exchange of opinions and voluntary commitments that are not controlled and/or not sanctioned in the case of failure to deliver, any significant progress towards

Strong Sustainable Consumption will fail to materialise (Berg, 2010). Delegating responsibilities to societal actors in the implementation phase of agreements makes the effort needed for their development rather questionable. For civil society this means “participation overkill” rather than achieving real-world changes (Spangenberg 1993; 2012)

#### 5.4 Appreciating the potential of social innovation

Important incentives for Strong Sustainable Consumption are quite likely to come from social innovation. A countless number of initiatives are on the way from food co-operatives to public gardening, the provision of services with explicit sustainable character, neighbourhood centres, barter trading platforms and local currencies (Seyfang and Smith, 2007; Seyfang, 2009). Of course many of these local social experiments are not suitable for up-scaling to the society at large (or would need to be drastically changed in the process), but they provide valuable “social laboratories”. The potential of such approaches still remains insufficiently explored, the efforts of up-scaling extremely limited and the political macro structures to foster this process undeveloped. Seen from a different angle they are development projects for the global North which can have the same role model function as successful development projects have in the global South (Lorek, 1996).

#### 5.5 Sharpening NGO strategies

Non Governmental Organisations, especially those working on environmental, development, and consumer issues, need to distance themselves from ‘weak’ sustainable consumption and from addressing consumers merely as consumers, rather than as citizens. To foster acceptance for such policies NGOs have an important, more strategically oriented role to play than they have adopted so far (Akenji, 2007). Increasingly this is a catalyst’s role, as they do not have the massive resources to implement many initiatives themselves. What NGOs can do is bringing people together and inspiring them. They are in a key position to induce societal debate and awareness regarding the steps needed to reach Strong Sustainable Consumption. Communication and discourse are basic conditions for fostering the changes required. NGOs can hardly be replaced in developing values and visions of Sustainable Consumption and fostering citizen engagement (Lorek, 2003; Spangenberg and Lorek, 2003). The more complex the issue, the more important it is to take up the catalyst role. Only in this way NGOs can muster enough political pressure capacity to push politics to implement substantial Sustainable Consumption policies instead of greening the market.

As part of the strategic re-orientation, environmental campaigning has to overcome the habit of promoting Sustainable (in fact green) Consumption by marketing strategies. Instead of encouraging individuals to adopt simple and painless behavioural changes – having a very limited potential to provide change, as has recently been seen with the LOHAS movement (Lifestyle of Health and Sustainability) – an alternative approach to motivate pro-environmental behavioural change is required in order to get people to engage in more significant changes. Studies already confirm that an appeal to environmental values is more likely to lead to a spill-over into other pro-environmental patterns of behaviour than an appeal to financial self-interest or social status (WWF-UK, 2008; 2009).

Those who have already worked on Sustainable Consumption issues for a longer period of time may benefit from convincing other local and national NGOs of the relevance of Strong Sustainable Consumption for their respective field of work. The majority of NGOs still lacks a clear understanding about the emerging challenges of sustainable consumption in an era of scarcity (Church and Lorek, 2007). Most NGOs, so far working on isolated topics such as energy or food, voluntary simplicity or cleaner production, are potentially in a position to embed their issues into a broader Sustainable Consumption perspective. The link just has to be recognised (Barber, 2007)<sup>3</sup>. This awareness that their different tasks have a common goal can strengthen their voice and their power to bring about change.

Besides backing up each other in content and argumentation, academia can be supportive for NGO engagement in another way. Scientific efforts can help improving their effectiveness in pointing out gaps in the strategies that NGOs are using and can suggest improvements in detecting ineffective strategies (Narberhaus et al., 2011).

## 6 Overall conclusion

One of the major challenges for Strong Sustainable Consumption is that it is not in line with the dominant political and societal worldview, mainly the belief in economic growth as recipe to cure all ills. Countless documents manifest this, like the EU 2020 Strategy, the EU SCP Action Plan and last but not least UNCED's 'The Future We Want' (European Commission, 2010; Commission of the European Communities, 2008; United Nations, 2012).

Those promoting Sustainable Consumption while being in favour of "greening the market" as a key tool for that behalf have to sharply differentiate between 'weak' and 'strong' forms in order to structure the debate more clearly. Relative and absolute resource consumption can both be promoted by market instruments, but not by the same set of tools. In particular, despite the huge efforts made again and again to further sustainable consumption by informational means, the policy instrument of information provision, has proven to be as ineffective in the policy instrument tool box as the call to switch off stand-by appliances in the debate about Sustainable Consumption priorities (Lorek et al., 2008).

Non Governmental Organisations need to distance themselves from 'weak' sustainable consumption. To foster the societal acceptance for Strong Sustainable Consumption policies NGOs have a strategic role to play by broad facilitating dialogues which clearly point to the future challenges like peak oil, resource scarcity and ecosystem collapse (discussions business and politics often try to avoid), identify preventive measures and popularise them. Such an approach can no longer draw on analogies to marketing strategies. Rather it must mimic political strategies by articulating what it stands for and which values it is driven by. Increased political effectiveness also has to grow from improved coalition building by NGOs with Environmental Justice Organisations EJOs and other Civil Society Organisations, such as academia or trade unions. Experience shows that lobbying efforts are more successful if they bundle arguments from various groups of society.

<sup>3</sup> The same seems to be true and useful for the different stakeholders on the governmental side, overcoming the narrow thinking within the boundaries of government departments

## References

- Akenji, L. (2007). Organizational Development And Sustainability Of Non-Governmental Organizations In Central And Eastern Europe. *CEU Political Science Journal*(03), 319.
- ASCEE team. (2008). *Policy Instruments to Promote Sustainable Consumption*. Brussels, Heidelberg, Oslo: IES, IÖW, SIFO.
- Ayres, R. U., Ayres, L. W., & Frankl, P. (1996). *Industrial ecology: towards closing the materials cycle*: Edward Elgar Cheltenham.
- Ayres, R. U., & Simonis, U. E. (1993). *Industrial metabolism: Restructuring for sustainable development*. Tokyo, New York: UN University Press.
- Barber, J. (2007). Mapping the movement to achieve sustainable production and consumption in North America. *Journal of Cleaner Production*, 15(6), 499-512.
- Beck, U. (1986). *Risikogesellschaft: Auf dem Weg in eine andere Moderne*: Suhrkamp Frankfurt.
- Beddoe, R., et al. (2009). *Overcoming systemic roadblocks to sustainability: The evolutionary redesign of worldviews, institutions, and technologies*. Paper presented at the Proceedings of the National Academy of Sciences, 106, 2483.
- Berg, A., & Hukkinen, J. I. (2011). The paradox of growth critique: Narrative analysis of the Finnish sustainable consumption and production debate. *Ecological Economics*, 72, 151-160.
- Church, C., & Lorek, S. (2007). Linking policy and practice in sustainable production and consumption: an assessment of the role of NGOs. *International Journal of Innovation and Sustainable Development*, 2(2), 230-240.
- Cohen, M. J. (1997). Risk society and ecological modernisation alternative visions for post-industrial nations. *Futures*, 29(2), 105-119.
- Commission of the European Communities (2008). *Communication on the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan. Document COM(2008) 397 final*. Brussels, Commission of the European Communities.
- Costanza, R. (1989). What is Ecological Economics. *Ecological Economics*, 1(1), 1-7.
- Egerton, M., & Mullan, K. (2008). Being a pretty good citizen: an analysis and monetary valuation of formal and informal voluntary work by gender and educational attainment1 (Vol. 59, pp. 145-164): Wiley Online Library.
- Ehrlich, P., & Holdren, J. (1971). Impact of population growth. *Science*, 171, 1212-1217.
- Erkman, S. (1997). Industrial ecology: an historical view. *Journal of Cleaner Production*, 5(1-2), 1-10.
- EEA and ETC/SCP (2009). Towards SCP Indicators for EEA Reporting. Eionet Workshop on SCP. Fribourg, September 24-25 2009.
- EEA European Environment Agency (2010). *The European Environment – State and Outlook 2010: Consumption and the Environment*. Copenhagen, EEA.
- European Commission (2011). *Roadmap to a Resource Efficient Europe. Document COM(2011) 571 final*. European Commission, Brussels.
- Brussels, 3.3.2010
- European Commission - DG Health and Consumers. (2012). A new European Consumer Agenda – Boosting confidence and growth by putting consumers at the heart of the Single Market.
- European Commission (2010). *EUROPE 2020. A strategy for smart, sustainable and inclusive growth. Document COM(2010) 2020 final*. European Commission, Brussels.
- European Commission (2009). *GDP and beyond. Measuring progress in a changing world*. Document COM(2009) 433 final. European Commission, Brussels.
- Fresner, J. (1998). *Cleaner production as a means for effective environmental management*. *Journal of Cleaner Production* 6(3-4): 171–179.
- Fuchs, D. (2005). *Understanding business power in global governance*. Baden-Baden: Nomos.
- Fuchs, D., & Lorek, S. (2002). Sustainable Consumption Governance in a Globalizing World. *Global Environmental Politics*, 2:1, 19-45.
- Fuchs, D., & Lorek, S. (2005). Sustainable Consumption Governance - A History of Promises and Failures. *Journal of Consumer Policy*, 28, 261-288.
- Galbraith, J. K. (1958). *The affluent society*: Houghton Mifflin.
- Garner, R. (2000). *Environmental politics: Britain, Europe and the global environment*: Macmillan.
- Halme, M. (2005). *Sustainable Consumer Services: Business Solutions for Household Markets*. London: Earthscan.
- Heinberg, R. (2003). *The party's over*. New Society Publishers, Gabriola Island, Canada.
- Hirsch, R. L. (2005). *Peaking of World Oil Production: Impacts, Mitigation, & Risk Managements*. United States Department of Energy, Washington.

- Hofstetter, P., & Madjar, M. (2003). *Linking Change in Happiness, Time-use, Sustainable Consumption, and Environmental Impacts: An Attempt to Understand Time-rebound Effects*. Zürich: Society for Non-Traditional Technology, Japan/BAO & Consultrix.
- Hooper, D. U., Adair, E. C., Cardinale, B.C., Byrnes, J. E. K., Hungate, B. A., Matulich, K. L., Gonzalez, A., Duffy, J. E., Gamfeldt, L. and O'Connor, M. I. (2012). *A global synthesis reveals biodiversity loss as a major driver of ecosystem change*. Nature preview doi:10.1038/nature11118.
- Layard, R. (2005). *Happiness: Lessons From a New Science*. New York: Penguin Press.
- Lebel, L., & Lorek, S. (2008). Enabling Sustainable Production-Consumption Systems. *Annual Review of Environment and Resources*, 33, 241-275.
- Lorek, S. (1996). Entwicklungsprojekte für den Norden? *Bundesforum - Zeitschrift der Katholischen Landjugendbewegung*, 7/1996.
- Lorek, S., Spangenberg, J. H. (2001). *Indicators for environmentally sustainable household consumption*. Int. J. Sustainable Development 4(1): 101-120.
- Lorek, S. (2010). *Towards Strong Sustainable Consumption Governance*. Saarbrücken: LAP Publishing.
- Lorek, S. and Spangenberg, J. H. (2002). Lebensstandardmessungen einschließlich nicht-marktlicher Dienstleistungen. G. Bosch, P. Henricke, J. Hilbert, K. Kristof, G. Scherhorn (Eds), *Die Zukunft von Dienstleistungen. Ihre Auswirkung auf Arbeit, Umwelt und Lebensqualität*. Campus, Frankfurt / New York: 455-481.
- Lorek, S., Spangenberg, J., & Oman, I. (2008). *Sustainable Consumption Policies Effectiveness Evaluation (SCOPE2) - Conclusion*. Overath, Vienna: Sustainable Europe Research Institute SERI.
- Lorek, S., & Fuchs, D. (2011). Strong Sustainable Consumption Governance - Precondition For A Degrowth Path? *Journal of Cleaner Production*, available online
- Lutz, W., Sanderson, W. and Scherbov, S. (2008). *IASA's 2007 Probabilistic World Population Projections, II-ASA World Population Program Online Data Base of Results 2008*, retrieved Oct. 23<sup>rd</sup>, 2011, at <http://www.iasa.ac.at/Research/POP/proj07/index.html?sb=5>
- Maniates, M. (2010). Cultivating Consumer Restraint in an Ecologically Full World: The Case of "Take Back Your Time". In L. Lebel, S. Lorek & R. Daniel (Eds.), *Sustainable Production and Consumption Systems*. Dordrecht: Springer.
- Manoochchri, J. (2006). *Full-system Resource Efficiency: Critique, Formalism, 'Distributive Efficiency', 'Functional Surface'*. Paper presented at the Perspectives on Radical Changes to Sustainable Consumption and Production, Workshop of the Sustainable Consumption Research Exchange (SCORE!) Network.
- Max-Neef, M., Elizalde, A., Hopenhayn, M. (1989). *Human Scale Development. An Option for the Future*. Development Dialogue 1989(1): 7-80.
- Mont, O. (2000). *Product Service-Systems. Final Report: IIIIEE*, Lund University.
- New Economics Foundation (2009). *National Accounts of Well-being: bringing real wealth onto the balance sheet*. NEF, London.
- Narberhaus, M. et. al. (2011). *Effective change strategies for the Great Transition*. London: WWF - UK.
- Norwegian Ministry for the Environment. (1994). *Symposium on Sustainable Consumption*. Oslo, Norway.
- OECD (2009). *Household behaviour and environmental policy*. OECD Environment Directorate, June 3-4 2009, Paris.
- OECD (2011). *Towards Green Growth*. OECD, Paris
- OECD (2012). *OECD Environmental Outlook to 2050. The Consequences of Inaction*. OECD, Paris
- Rauschmayer, F., Omann, I., Frühmann, J., & Bohunovsky, L. (2008). *What about needs? Re-conceptualising Sustainable Development*. SERI Working Papers 8, Vienna.
- Rehfeld, K. M., Rennings, K., & Ziegler, A. (2007). Integrated product policy and environmental product innovations: An empirical analysis. *Ecological Economics*, 61(1), 91-100.
- Rijnhout, L. and T. Schauer (2009). *Socially Sustainable Economic Degrowth*. Proceedings of a workshop at in the European Parliament, Brussels, April 16 2009. Club of Rome, Vienna.
- Ropke, I. (2003). Consumption dynamics and technological change--exemplified by the mobile phone and related technologies. *Ecological Economics*, 45(2), 171-188.
- Røpke, I. (2009). Theories of practice - New inspiration for ecological economic studies on consumption. *Ecological Economics*, 68(10), 2490-2497.
- Rubik, F., & Scholl, G. (2002). Integrated Product Policy (IPP) in Europe—a development model and some impressions. *Journal of Cleaner Production*, 10(5), 507-515.
- Schaefer, H. (2004). Ethical investment of German non-profit organizations—conceptual outline and empirical results (Vol. 13, pp. 269-287): Wiley Online Library.
- Scheer, D., & Rubik, F. (2006). *Governance of integrated product policy: in search of sustainable production and consumption*: Greenleaf Publishing.
- Schiess, Ueli; Schön-Bühlmann, Jacqueline (2004): Satellitenkonto Haushaltproduktion. Pilotversuch für die Schweiz. Bundesamt für Statistik, Neuenburg
- Schmidt-Bleek, F. (1992). *Eco-Restructuring Economies: Operationalising the Sustainability Concept*. Fresenius Env. Bulletin 1(3): 46 - 51.

- Schnaiberg, A. (1980). *The Environment, from Surplus to Scarcity*. Oxford University Press, New York.
- Schor, J. B. (1998). *The overspent American: upscaling, downshifting, and the new consumer*: Basic Books, New York.
- Scitovsky, T. (1992). *The joyless economy: The psychology of human satisfaction*: Oxford University Press, USA.
- SCORE Network (2008). *Sustainable Consumption and Production: A Framework for Action*. Brussels.
- Seyfang, G. (2007). Growing sustainable consumption communities: the case of local organic food networks. *International Journal of Sociology and Social Policy*, 27(3), 120-134.
- Seyfang, G. (2009). *The New Economics of Sustainable Consumption*: Palgrave Macmillan, New York.
- Spangenberg, J. H. (2012). *NGOs between influence and participation overkill: The Merits, Strengths and Weaknesses of Environmental Civil Society Organisations*. O. Renn, A. Reichel, J. Bauer (eds.). Civil Society for Sustainability – A Guidebook for Connecting Science and Society. Bremen: Europ. Hochschulverlag in press.
- Spangenberg, J. H. (Ed.) (1995). *Towards Sustainable Europe*. Russel Press, Nottingham.
- Spangenberg, Joachim H. (1993). *Participation Overkill*. *Ecology and Farming* 1993(5): 10-11.
- Spangenberg, J. H., Lorek, S. (2002). *Environmentally sustainable household consumption: From aggregate environmental pressures to priority fields of action*. *Ecological Economics* 43(2-3): 127-140.
- Spangenberg, J. H., (Ed.) (Ed.). (2003). *Vision 2020*. Munich: oekom.
- Spangenberg, J. H., Fuad-Luke, A., Blincoe, K. (2010). *Design for Sustainability (DfS): the interface of sustainable production and consumption*. *Journal of Cleaner Production* 18 (15): 1483-1491.
- Stiglitz, J., A. Sen, et al. (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress*. Paris
- Trainer, T. (2007). *Renewable energy cannot sustain a consumer society*. Springer, Dordrecht.
- Tukker, A. (Ed.). (2008). *System Innovation for Sustainability I*. Sheffield: Greenleaf.
- Tukker, A., & Jansen, B. (2006). Environmental impacts of products: a detailed review of studies. *Journal of Industrial Ecology*, 10(3), 159-182.
- Tukker, A., & Tischner, U. (2006). Product-services as a research field: past, present and future. Reflections from a decade of research. *Journal of Cleaner Production*, 14(17), 1552-1556.
- United Nations (2012). *The Future We Want*. Draft Final Declaration of the UNCED conference. United Nations, New York
- United Nations, Department of Economic and Social Affairs, Population Division (2011). *World Population Prospects: The 2010 Revision, Highlights and Advance Tables. Document ESA/P/WP.220*. United Nations, New York
- UNStats United Nations Statistical Commission (2012). *Revision of the system of environmental-economic accounting (SEEA) – SEEA Central Framework*. Retrieved May 20<sup>th</sup>, 2012  
[http://unstats.un.org/unsd/statcom/doc12/SEEA%20Central%20Framework\\_Ch1-6.pdf](http://unstats.un.org/unsd/statcom/doc12/SEEA%20Central%20Framework_Ch1-6.pdf)
- van Griethuysen, P. (2010). Why are we growth-addicted? The hard way towards degrowth in the involutory western development path. *Journal of Cleaner Production*, 18(6), 590-595.
- Victor, P. (2010). *Questioning economic growth*. *Nature* 468: 370–371
- WCED. (1987). *Our Common Future: World Commission on Environment and Development*: Oxford University Press Oxford.
- Weizsäcker, E. U., Lovins, A. B., & Lovins, L. H. (1998). *Factor Four: Doubling Wealth, Halving Resource Use - A Report to the Club of Rome*: Earthscan.
- Worldwatch Institute. (2004). *State of the world 2004: Special Focus: The Consumer Society*. New York: WW Norton & Company.
- WWF-UK. (2008). *Weathercocks & Signposts - The environment movement at a crossroads*. Surrey, UK: WWF.
- WWF-UK. (2009). *Simple and painless? The limitations of spillover in environmental campaigning*. Surrey, UK: WWF.