
EVALUATION OF TOOLS TO PROMOTE SUSTAINABLE CONSUMPTION AND GREEN LIFESTYLES

Paper C: This paper is intended to serve as a background paper for session 4, session 5 and session 6 at the Nordic Council of Ministers' Workshop on sustainable consumption and green lifestyles to be held in Copenhagen on November 24th- 25th, 2010.

Questions for discussion at the workshop based on this paper include (but are not limited to):

- What are the strengths and weaknesses of different policy instruments to promote Sustainable Consumption?
- Where are the most significant gaps in policy instruments to promote sustainable consumption in the Nordic countries?
- Which types of policy instruments should be prioritised in the future work on promote Sustainable Consumption in the Nordic countries?

Authors: Mikkel S. Hansen and Kate Power

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1 INTRODUCTION

Since the introduction of SCP as a policy field at the 1992 UN Rio conference for Environment and Development SCP has been taken up broadly in Europe as a policy field of growing importance. The overall EU policy framework dedicated to addressing the environmental impacts of consumption is the EU Action Plan on Sustainable Consumption and Production and Sustainable Industrial Policy (EC, 2008). At the national level, at least 15 EU countries have adopted national SCP strategies either as

stand-alone overarching SCP strategies or action plans – including Finland¹ and Sweden² – or as a key theme within national sustainable development strategies – including Denmark³ and Iceland⁴ (EEA, forthcoming; Watson *et al.*, 2009, Adell *et al.*, 2009 and Icelandic Ministry for the Environment, 2009).

However, common for most if not all of these initiatives they have been focused more on the production side of SCP mostly addressing supply of sustainable products, whereas the consumption side (demand) has not been addressed to the same extent (Berg, 2007; Tukker *et al.*, 2008; Rubik *et al.*, 2009) even though the focus on sustainable consumption seems to be increasing.

This document intends to serve as a background material for the Workshop on sustainable consumption and green lifestyles of the Nordic Council of Ministers. The purpose of the document is to evaluate the prevalence and effectiveness of different policy tools to promote sustainable consumption and green lifestyles with an emphasis on Nordic countries. It does so by screening key research and by presenting selected examples of policy tools aimed at promoting sustainable consumption and green lifestyles in the Nordic countries. The paper does not give an exhaustive overview of policies within this field in the Nordic countries.

2 POLICIES FOR SUSTAINABLE CONSUMPTION

A broad range of policies, environment-related or not, set the framework for consumption patterns, including, for example, transport policies, the EU Common Agricultural Policy (CAP), the Cohesion Policy, and trade policies. All these influence the relative prices and availability of different goods and services. Some of these may promote sustainable consumption, however, others may counteract.

The focus of this paper is policies developed specifically to encourage more sustainable consumption, i.e. policies aimed at exerting direct influence on the decision-making of private consumers, changing or adjusting the “framework conditions” for private consumption and/or promoting more sustainable procurement by the public sector.

Various kinds of measures may be taken by government to promote sustainable consumption. In this paper, these are categorised as follows:

1. Strategies, programmes and action plans
2. Regulatory instruments and standards,
3. Economic instruments,
4. Information-based instruments,
5. Voluntary agreements,
6. Investments in sustainable infrastructure,
7. Green Public Procurement
8. Institutional setup

¹ Finland’s SCP Programme: Getting more from less

² Sweden’s SCP Action Plan: Think twice! – An action plan for sustainable household consumption

³ Denmark’s National Sustainable Development Strategy: Growth with Contemplation

⁴ Iceland’s National Sustainable Development Strategy: Welfare for the future 2002-2020

These categories of instruments are briefly described below.

- **Strategies, programmes and action plans**

These – also referred to as planning instruments – include strategic policy documents aimed at providing the overall framework for policy action to promote sustainable consumption. Such policies often put forward a vision, strategic objectives, specific targets, concrete action as well as indicators for measuring progress. Examples include national sustainable consumption and production action plans and green public procurement strategies.

- **Regulatory instruments and standards**

These include elements such as product and substance bans, emissions limits, production process standards, minimum product performance standards, mandatory environmental reporting for companies, mandatory green public procurement standards and building codes. These type of instruments aim at determining which products, services, substances and production methods should be allowed and further establish specific requirements for actors.

- **Economic instruments**

These include instruments such as fees and charges, taxes and subsidies, cap and trade schemes, feed-in tariffs, tradable permits, deposit-refund systems, etc. Economic instruments can serve different aims including internalising external costs, reaching policy targets for pollution reductions, or promoting specific technologies and can significantly influence consumption by increasing or reducing supply and/or demand for specific products and services. Examples include energy taxes, water taxes and subsidies for development or feed-in tariffs for renewable energy installations.

- **Information-based instruments and education**

These include instruments such as labelling, consumer guidelines, consumer campaigns, websites and portals, education on sustainable consumption and training seminars for authorities and/or the private sector all aimed at raising awareness about sustainable consumption and enabling consumers to make sustainable decisions. Such instruments can be a key driver in expanding the markets for green products (e.g. organic products or eco-labelled products).

- **Voluntary agreements**

These are often developed through partnerships between government and business and are aimed at achieving environmental benefits in an efficient manner by involving business directly. This category also includes stakeholder engagement in the broader sense. Examples include voluntary reporting initiatives, setting of voluntary targets for product improvements and emissions reductions, voluntary certification schemes, etc.

- **Investments in sustainable infrastructure**

This category covers public investments in infrastructure, which can facilitate more sustainable consumption, such as improved public transport, more energy-efficient buildings, recycling schemes, renewable energy installations and district heating systems.

- **Green Public Procurement**

The policy field of green public procurement (GPP) is treated as a separate section in this paper, since it aims at greening consumption in the public sector, whereas the policy instruments

discussed elsewhere are aimed at household consumption. Examples of GGP policies include strategies, mandatory requirements for green procurement, voluntary GGP schemes, guidelines, etc.

- **Institutional framework**

An institutional framework and adequate capacity building within these institutions are key pre-requisites for successful policy-implementation independent of the policy area and approach chosen. The institutional framework for sustainable consumption includes ministries, agencies, centres of knowledge and expertise, working groups, networks, task forces, etc. working on SC at the national and regional level.

In the following sections the prevalence and effectiveness of some of these types of policy instruments for sustainable consumption is discussed.

3 REGULATORY INSTRUMENTS AND STANDARDS

Regulatory instruments include bans, mandatory standards and permit requirements, which all carry an obligation to comply with government rules or to face sanctions (EUPOPP, 2009: 18). Regulatory instruments are known to be effective policy tools, when adequately enforced; however they are rarely used to promote sustainable consumption, except in the areas of improving products and production processes, and improving the operation of public authorities (EUPOPP, 2009: 18).

Regulatory instruments have made significant contributions to improving consumer products and technologies, and making consumer behaviour more sustainable, for example through minimum standards for vehicle emissions; however, “the stringency of policies is limited by government unwillingness to challenge industry.” (Jackson and Michaelis, 2003: 58).

In some cases, regulatory instruments and standards may be the most efficient way to promote sustainable consumption, for example, in improving efficiency of domestic appliances (Michaelis, 1996; Jackson and Michaelis, 2003). This is because regulatory policy tools directly remove unsustainable products from the market, and so have a direct impact on consumption patterns (OECD 2008a).

Example: Requirements on Corporate Reporting

Disclosure of information about the environmental and social performance of corporations can provide consumers with a basis for deciding what products to buy and can provide incentives for businesses to improve their performance. In some countries, such as Denmark and Norway, corporate sustainability reporting is a legal obligation, mostly linked to annual financial reports, but in most countries it is voluntary, with varying approaches (OECD 2008a: 33). There are various international instruments that promote corporate sustainability reporting on a voluntary basis, such as the OECD Guidelines for Multinational Enterprises, the UN Global Compact and the Global Reporting Initiative (GRI). In addition, some sectors are moving towards regulation of information disclosure; for example, public pension schemes in many countries, including Sweden and Norway, are leading the way on socially responsible investment and reporting (OECD 2008a).

Example: Requirements for energy efficiency in housing

In the EU, buildings are responsible for 40 % of energy consumption; therefore energy efficiency in housing is of great importance in reaching the EU Climate and Energy objectives of 20 % energy savings by 2020. The key legislation at the EU level is the Directive on energy performance of buildings (2002/91/EC). These regulations require Member States to draw up minimum standards for the energy performance of new and existing buildings, ensure the independent certification of their energy performance and require the regular inspection of boilers and air conditioning systems in buildings.

The Nordic countries have some of the most ambitious regulations for energy performance in buildings: for example, Norway has the most stringent minimum requirements for U-values of individual building components in Europe, followed by Sweden. Denmark has introduced a target to reduce energy consumption requirements for new buildings by 2020 by 75% compared to the current requirement – divided into a 25% reduction by 2010, a further 25% reduction by 2015 and an additional 25% by 2020.

Other countries have also developed interesting quantitative targets in response to the EU legislation, for example, one of the UK targets is for all homes to have received by 2030 a ‘whole house’ package including all cost-effective energy saving measures, plus renewable heat and electricity measures as appropriate, with all lofts and cavity walls to be insulated where practical by 2015. In addition, from 2016 all new homes will be zero carbon. France has the ambitious target of a 40% improvement in overall energy performance of new buildings by the year 2020. In addition, France has targets for building new energy-efficient housing from 2010, Green Buildings from 2012, and passive or positive-energy buildings from 2020.

Example: Regulation of Advertising

The Nordic Ombudsman system has guidelines for advertisers on environmental and social claims in marketing, and provides legal advice on marketing that involves sustainability issues. The Ombudsmen prosecute manufacturers and distributors if ads are found to be illegal or misleading: for example, in the Nordic countries the term “environmentally friendly” can only be used where a study of the life-cycle environmental impacts of the product has been made, which supports the claim when comparing the product to similar items (OECD 2008a: 37-38). An example of legal action is a suit filed by Belgium, Finland and Sweden against General Motors to stop their claims of “for a cleaner environment” in marketing their cars (OECD 2008a: 38).

There are also international initiatives from the advertising industry to self-regulate; for example, the International Chamber of Commerce has a code of environmental advertising to prevent misleading claims, and the European Brands Association is promoting truth in advertising the social, ethical and environmental aspects of products (OECD 2008a: 38).

4 ECONOMIC INSTRUMENTS

Much environmental pollution and natural resource depletion comes from incorrect pricing of the goods and services we produce and consume. Economic instruments help to simultaneously realise environmental, economic and social policy objectives by taking account of the hidden costs of production and consumption to people's health and the environment, in a cost-effective way. The use of environmental taxes along with other market-based policy instruments is seen as a dynamic and efficient supplement to regulation.

All Nordic countries have applied economic instruments to promote more sustainable consumption to some extent. Sweden, Finland, Denmark and Norway have introduced CO₂ taxes. Other areas where environmental taxes or charges are widely applied include fuels, car sales, waste, raw materials and specific products. (EEA, 2006)

For the purpose of this paper, economic instruments are divided into:

- 4.1 Taxes and charges
- 4.2 Subsidies
- 4.3 Tradeable permits

The overall objectives of **environmental taxes and charges** are to change prices of products and services thereby providing incentives for consumers and companies to change behaviour towards consumption with lower environmental impacts, as well as to raise revenue. Application of environmental taxes plays a central role in the effort to implement the “polluters pay” principle, which is a key principle in European environmental policies. Environmental taxes are often implemented in the form of a revenue-neutral tax reform by transferring taxes from labour to natural resources and environmental impacts.

Evidence on the environmental effectiveness of taxes is broadly positive; in general they work when the tax is sufficiently high to stimulate measures to abate pollution levels and is seen as a dynamic incentive to reduce pollution or natural resource use.

Evidence further suggests that instruments, where they have been applied, work better if:

- they are well-designed in themselves and as part of a wider package of instruments
- the reasons for having them and how revenues will be used are clearly communicated
- the levels at which 'prices' are set reflect both an incentive to producers and consumers to change behaviour and a realistic analysis of affordability.

(EEA, 2006)

Environmental subsidies are widely used and effective to help create new markets for environmental goods and services and for stimulating the development and more rapid diffusion of new cleaner technologies, such as catalytic converters, low CO₂ vehicles and renewable energies. Experience suggests that application of subsidies at an early stage leads to further (non-subsidised) technological developments.

Tradeable permits, such as the European Emission Trading Scheme (ETS) or the fish quotas, can be a powerful tool for delivering environmental objectives in a cost-effective way, but the instrument design and implementation protocols are crucial to success. A regulatory agent specifies an overall level of emissions that will be tolerated and emission allowances are then allocated to all the sources involved in the scheme. A market for emission allowances will then emerge as sources in the scheme are free to buy or sell allowances based on their own costs of control and the price of the allowances.

The key merit of emissions trading is that it facilitates and encourages abatement to take place wherever it is cheapest to do so. Emissions trading works better if the number and diversity of sources under the 'cap' is larger, and if technological requirements for individual sources are less stringent. (EEA, 2006)

Example: Congestion charge

Congestion charges have been successfully implemented in Stockholm and London and it is generally an effective policy measure. The Stockholm congestion charge introduced in January 2007 has resulted in a 20% decrease in traffic, a 10-14% decrease in air emissions and has reduced congestion. Congestion charges are sometimes deemed to be a rather unpopular measure (OECD 2008b). However, interestingly, this may change after the system is in place. In the case of Stockholm, public opinion changed dramatically from 25% in favour of the system in Dec. 2005 (prior to the introduction) to 65% in favour of the scheme in Dec. 2007 after it had been in place for a year. This change in opinion can be explained by the facts that the system worked well technically, people experienced the benefits, the problems predicted did not occur and it was well planned and trialled. Furthermore, research shows that support for congestion charges can be increased by directing revenues to specific common goods, and communicating this; for example research in the UK showed an increase in support for road pricing from 30 % to 57 % when respondents were told that revenues would be spent on improved public transport, local traffic management and improved pedestrian facilities (Jones, 1991; OECD, 2008b: 79). The success of such a scheme depends on whether it is part of a policy mix that provides motorists with an acceptable alternative to car use (Santos, 2005; OECD, 2008b:78).

Example: Differentiated car registration levy based on fuel-efficiency of the car

Several countries, including Sweden and Denmark, have during recent years transformed the car registration levy to one that is differentiated based on the fuel-efficiency of cars, meaning that fuel-efficient cars pay significantly less than fuel-inefficient cars. The purpose of the differentiated levy is to limit the purchasing of fuel inefficient vehicles. Such schemes are often combined with the introduction of an annual green ownership duty that is also differentiated according to the fuel-efficiency of cars. Interestingly, such initiatives can be very successful. In Ireland the differentiated car registration levy has contributed to a growth of Class A vehicles from a ratio of 1.5% of the market in 2007 to 34.7% in September 2010. At the same time Class E, F and G vehicles have dropped from a share of 34% to 3%.

Example: Taxation of specific products

Environmental taxes on products that are associated with specific environmental problems are widespread and seem to be on the increase. For instance, Denmark, Finland, Norway and Sweden have introduced taxes on beverage containers as well as on pesticides. In many cases product oriented environmental taxes are quite efficient. The Danish duty on plastic and paper bags was introduced in 1993. It was predicted that the duty would reduce the use of bags by 50%. However, the consumption of bags was reduced even more; to one third of the original level. Similarly, a duty and subsidy system on used tyres was introduced in Denmark in 1995 and expanded in 2000. Today, more than 97% of all tires are collected for recycling.

Example: Water charges

Environmental charges on water supplied in pipes were gradually introduced in Denmark, with the effect that the price of water rose by 150 % in the period 1989-2001. During the same period of time water consumption by households fell by more than one quarter. The price of water is composed of a water supply tax (41 %), VAT (20 %), variable water taxes (12 %), green taxes, (14 %), variable taxes (9 %) fixed wastewater charge (2 %) and a State wastewater tax (2 %). (OECD 2008a: 15)

5 INFORMATION-BASED INSTRUMENTS

Information tools for sustainable consumption include education, raising awareness and public information of all types – from eco-labelling to campaigns, guidelines, leaflets and websites & portals. The rationale for using such instruments is that “better informed citizens can make informed choices to bring about concrete changes in their attitudes and behaviour with beneficial impact on environmental protection.” (EC, 2004: 23)

Communication and information tools are frequently used in sustainable consumption strategies, in order to inform consumers (including the private sector, public administration and individual citizens) about the environmental impacts of their behaviour, and try to persuade them to consume more responsibly (EUPOPP, 2009). Informational instruments are rarely evaluated in terms of measurable behaviour change – usually evaluations rely on “raising awareness” or self-report of intention to act. When such instruments are fully evaluated, evidence over several decades shows that raising awareness on its own does not lead to a corresponding change in behaviour (Stern, 1986; Jackson and Michaelis, 2003).

“A number of studies and general experience have shown that the effect of such campaigns is usually limited. . . This is a well-known fact, in the scientific community and among politicians. This has not, however, undermined the popularity of this policy instrument. . . It is easier to propose information campaigns to change individual behaviour, than to initiate political processes which carry a substantial danger of provoking stakeholders. Thus, the responsibility is moved from the political to the individual arena and the responsibility is put on households and individual consumers.” (Rubik et al 2009:19).

Of course, information does have an important role to play in promoting sustainable lifestyles and increasing public acceptance of sustainability policy measures; research shows that information instruments work best when combined with other policy tools, such as economic incentives, and when informing about new possibilities, such as changes in infrastructure that facilitate sustainable behaviour. Information can also be used in more targeted and more creative projects, for example information about how energy efficient a household is compared to other households on the street, in combination with energy bills. Social marketing, and particularly community-based social marketing, tend to achieve more success in changing behaviour, as they target the specific barriers and benefits of sustainable actions (McKenzie-Mohr and Smith, 2008); in addition, behaviour change campaigns are known to be more successful when targeting groups rather than individuals (Jackson, 2005).

Example: Community-based social marketing

A good example of community-based social marketing is Global Action Plan's international Household Eco-team project, which has resulted in measurable and long-lasting improvements in household energy use, water consumption and waste levels from communities in many parts of the world (Fisher and Irvine, 2010). Iceland has been active in promoting the GAP model for encouraging sustainable consumption, known as "vistvernd í verki", throughout the country. The work was initiated by a civil society organisation – the Icelandic Environmental Association, and focused on education and capacity-building, as well as the household eco-teams where people share experiences while making sustainable changes. The Icelandic Ministry for the Environment linked to this programme with a joint venture in 2008, called "Step-by Step"; this was an awareness-raising programme, including materials promoting sustainable transport, recycling, waste, eco-labels and energy use. (Icelandic Ministry for the Environment, 2009)

Example: Material efficiency centre

Finland's Ministry of the Environment and Ministry of Employment and Economy have created a Material efficiency centre to provide services for businesses and advice for consumers and the public sector on improving material efficiency (Finnish Ministry of the Environment, 2009). The centre includes a help desk which brings together public sector purchasers who need solutions for large environmental technology investments, with enterprises that can offer appropriate sustainable solutions (Finnish Ministry of the Environment, 2009).

Communication Campaigns

Research shows that government run awareness-raising campaigns are not very effective in promoting more sustainable consumption patterns and lifestyles (OECD 2008a: 21); despite this, they continue to be widely used, with success criteria based on campaign recognition and self-reports in behaviour change.

Example: Communication Campaigns

In 2007 the Danish Ministry of Environment, in cooperation with the Transport and Energy Ministry, ran an information campaign, the **One Tonne Less** campaign, which aimed at encouraging households and individuals to reduce their CO₂ emissions by one tonne per year, as well as having the general aim of raising Danish consumer awareness. (The average Dane is responsible for about 10 tonnes of CO₂ per year, of which about 6 tonnes relate to personal behaviour e.g. heating, transport, food, consumers goods). The campaign raised awareness of *existing* opportunities: there were no changes in infrastructure or pricing, or other new opportunities. The campaign was designed to run for one year, but was extended to two years. An independent, academic evaluation of the campaign was very positive, finding that it was “well designed, thoroughly planned and adequately financed”, as well as presenting a “professional image. It could easily be used by other countries as a guideline, if and when they wish to design their own campaigns.” (Rubik, Scholl et al 2009:22). In addition, the evaluation found that 47% of adult Danes have heard about the campaign, and 1/3 claim to have taken action to reduce their environmental impact. (Rubik, Scholl et al 2009:22).

Positive results reported by the campaign include an increase in the percentage of the population who think that they can do something to prevent climate change themselves from 71% to 85%, and an increase in knowledge about climate change, with the number of correctly answered questions about climate change increasing from 59% at the baseline to 75%. In addition, the percentage of the population who state that concern for the climate motivates them to act sustainably increased from 25-28 per cent to 40 per cent, which could indicate a positive shift in public perception of the importance of acting sustainably.

The Danish Energy Agency (One Tonne Less website, accessed 2010) states that “By the end of the campaign there were over 92,000 climate pledges that together represent a saving of approximately 163,000 tonnes of CO₂, making the average pledge to save more than one tonne of CO₂.” However, as with all such campaigns, it is difficult to assess whether such pledges translated into real savings of CO₂, and the evaluation by Rubik, Scholl et al (2009) also describes One Tonne Less as “just another campaign” – the success was bound to be limited because the framework for behaviour was not changed – the campaign was limited to providing information about already existing opportunities to behave sustainably and reduce environmental impact. In addition, it is suggested that two years is not a sufficient time scale for such a campaign to make a significant difference to people’s attitudes and behaviours (Rubik, Scholl et al 2009:22). However, they also note that increasing awareness among citizens is important for influencing the political framework (Rubik, Scholl et al 2009:35).

Education for sustainable consumption and lifestyles

Education is an important tool for providing the appropriate skills for sustainable lifestyles (OECD 2008a). There are various national and international initiatives to bring sustainable consumption into education at all levels, such as the UNESCO designated *Decade of Education for Sustainable Development*, which runs from 2005 to 2014, and the Marrakech Task Force on Education for Sustainable Consumption, which is producing practical tools for introducing sustainable consumption into curricula (OECD 2008a).

Some countries are introducing sustainable consumption as a part of general consumer education: the Nordic Council of Ministers has developed guidelines for consumer education that should enable consumers to “assess the effects of their own consumption on the environment, to choose nutritious food which is environmentally-beneficial, and to practice sustainability at home” (OECD 2008a: 26).

In addition, the international Eco-Schools Programme, founded in 1994, involves young people practically in local sustainable development initiatives, such as saving energy and recycling (OECD 2008a), in addition to raising students’ awareness of sustainable development issues through classroom study. There are more than 14,000 participating schools around the world, including several in the Nordic region. Every school that participates in the scheme must review and improve its environmental performance, and can apply for three levels of award in recognition of their progress. The first two levels – bronze and silver – are based on self-assessment against a set of criteria. The highest level of award – the Green Flag – is a recognised eco-label for environmental education and performance, which is assessed by external authorities. Some countries have targets on education and sustainability; for example, the UK Government’s Sustainable Schools Framework (2006) includes the aim that every UK school is a sustainable school by 2020.

The European Commission has its own online consumer education project in 27 EU countries: **DOLCETA** is a series of online modules focusing on various consumer topics, including sustainable consumption. Consumers can learn about the environmental, social and health impacts of their consumption in the areas of food, household, travel and “looking good” which includes personal care and clothes. The website also offers teaching resources and lesson plans for educators. See <http://www.dolceta.eu/> for website in various languages.

Example: Education for sustainable consumption and lifestyles

The Swedish Higher Education Act requires sustainable household consumption to be included in courses on home economics and consumers affairs; accordingly, materials for higher education are being developed by the Swedish Consumer Agency (OECD 2008a).

Labelling:

Labelling schemes aim to fulfil consumer’s right to information, and enable them to make an informed choice between the various products and services available (EC, 2004). They facilitate communication between producers and potential consumers, with the goal of promoting increase production and consumption of products that are more sustainable than mainstream goods and services. Labels cover an increasingly wide range of issues that consumers are encouraged to use in their decision-making: organic products, fair trade and social labels, nutrition, food miles, CO2 emissions etc. On the one hand, these give consumers an opportunity to shop according to their values and priorities; on the other hand, it may be confusing for many people to decipher and use all this information in the “increasing jungle of labels” (Rubik et al, 2009: 26), or to differentiate between self-declarations that may involve “green-washing” compared with labels that are certified by a credible third-party organisation (Poncibo, 2007).

Voluntary labelling is one of the most common instruments for promoting sustainable consumption, and research shows that their positive impact on environmental and social sustainability is increasing (OECD, 2008a). However, voluntary labelling remains a relatively weak policy tool, due to low levels of consumer awareness, criteria differences across products, market competition between various schemes, and possible technological lock-ins for business thus limiting innovation (OECD, 2008a: 29). Voluntary labelling schemes do have a role to play in promoting sustainable consumption: reliable and independent certification seems to be key in building consumer confidence in a label. In addition, labelling can be effective in driving significant improvements upstream in the production and supply chain; for example, energy efficiency labelling has played a crucial role in the environmental improvement of electrical appliances in Europe over the past decade. The European Commission's "A to G" energy levels have been mandatory for appliances including fridges, dishwashers and washing machines since 1992: technical improvements since then have ensured that 90 % of appliances sold in the EU are in the "A" category. In order to further these improvements, the Commission is now planning higher efficiency categories (A+, A++ and A+++) as well as introducing energy efficiency labeling for TVs, which account for about 10 % of a household's energy use (Energy Efficiency News, 2010).

The Nordic Swan, introduced in 1989, is one of the more successful voluntary labelling schemes, with high levels of consumer recognition and sufficient levels of influence to facilitate change from producers (OECD, 2008a). The strengths of the Nordic Swan label include its coverage across the Nordic region, its large range of product categories (which means consumers only have to recognise one label throughout a store if they want to choose a more sustainable product), and government certification, which brings credibility and consumer confidence to the scheme.

Example: Danish organic label

The organic label ø-mark is the most widespread organic label in Denmark and has a very high recognition rate of 93% among consumers. It is a national governmental label which was introduced in 1990, with inspections carried out by authorities under the Ministry of Food, Agriculture and Fisheries (Frieder, Scholl et al 2009:24). The effective control of organic standards by the Danish government has given the Danish public a high level of confidence in organic products: Danes have the largest per capita consumption of organic products within Europe (Frieder, Scholl et al 2009).

6 VOLUNTARY AGREEMENTS

Voluntary initiatives, codes of conduct and other forms of self-regulation are often preferred to traditional legislation because they tend to be more flexible, cheaper and faster to implement; however, these "soft" tools are considered by some, including consumer organisations, to "lack transparency, ambition, legitimacy and efficacy." (Degallaix and Klemola, 2006: 2). A study by the OECD concluded that voluntary environmental agreements do not result in significant environmental improvements compared with what would have happened without the agreement, and that "the environmental effectiveness of voluntary approaches is still questionable." (OECD, 2003: 14).

Voluntary agreements can be a useful mechanism for engaging stakeholders in action towards sustainable consumption, and as they are relatively flexible tools, they have the potential to be dynamic – responding to technological improvements or changes in regulations and other conditions. Such agreements also have great potential to raise awareness about sustainability challenges, and to highlight the role that industry / retailers can play in promoting sustainable solutions. As voluntary agreements are often faster to implement than regulations, they can provide helpful short-term solutions in cases where regulation would not currently be realistic, enabling some interim environmental improvements to be made.

However, a general critique of voluntary agreements is that there are no real obligations for industry, who may welcome voluntary measures in order to avoid or delay the imposition of government legislation: as a result, environmental protection measures may be delayed by many years (Degallaix and Klemola, 2006). For example the “agreement between the EU and the European car manufacturers to cut CO₂ emissions from cars (1998) was a counter-proposal by the industry to avoid a European carbon/energy tax, conceived as a means of helping to achieve the Kyoto objectives.” (Degallaix and Klemola, 2006: 4). A further criticism is that, for agreements where the criteria are negotiated by the signatories (as opposed to those that have pre-defined standard to which organisations voluntarily agree to meet), the need for consensus among signatories results in the lowest common denominator of standards being implemented.

The European consumer organisations BEUC and ANEC (Degallaix and Klemola, 2006) suggest that where voluntary agreements are used, they can be strengthened by:

- Determining a realistic and externally verified “business as usual” baseline scenario against which to develop targets, to ensure that targets lead to significant improvements.
- Create quantified and staged targets including short-term targets, so that action can be taken at an early stage if voluntary agreements are not having the desired impact on industry. Targets should also be reviewed and updated regularly.
- Developing credible enforcement measures, including regular reporting and independent verification.
- Ensuring that sanctions are applied for failing to reach targets or non-compliance with the agreement. This could include financial penalties, excluding members from the agreement, or repealing the agreement.
- Setting up a steering group with balanced representation of stakeholders, in order to negotiate and review appropriate targets.

Although there is some potential for voluntary agreements to facilitate environmental improvements, they are not considered to be strong or effective policy tools.

Example: Courtauld Commitment, UK

In some cases, voluntary agreements may lead to some environmental improvements, even when the participation rate is less than 100 % of the market. An interesting example is the UK's Courtauld Commitment, a voluntary agreement aiming to reduce environmental impacts from the grocery retail sector. The first phase had the participation of 92 % of the UK grocery market, and reached two of the three initial targets: to design out packaging waste growth (zero growth achieved in 2008) and to reduce food waste by 155,000 tonnes (exceeded with 270,000 tonnes less food waste arising in 2009/10 than in 2007/08) (WRAP, 2010). The target to reduce the amount of packaging waste was not achieved, partly due to an increase in grocery sales volumes. There are no sanctions for signatories to the agreement even though one of the three targets was not met. WRAP claims that around 3.3 million tonnes of CO₂ equivalent emissions have been avoided due to this voluntary initiative (WRAP, 2010).

Example: Retail Environmental Sustainability Code

In 2009 the European Commission and European retail sector set up the Retail Forum to develop a better understanding of the practical measures needed to promote sustainable consumption in the retail sector. In June 2010, the first anniversary of the Retail Forum, the Retail Environmental Sustainability Code was launched: this is a voluntary environmental code of conduct for the retail sector, with signatories committing to a set of principles and measures aimed at reducing their environmental footprint. The code recognises the key role played by retailers in sustainable production and consumption through their own actions, their partnerships with suppliers, and their daily contact with European consumers. The code has agreed principles rather than standards and targets, in order to reflect the diversity of retailers' initiatives. Signatories commit to improving the environmental impact of their operations through sustainable sourcing of specific products such as timber or fish, increased resource efficiency in stores, optimisation of transport and distribution, better waste management practices and improved communication to consumers. Signatories agree to report on their progress, for instance through their annual corporate sustainability report. (Europa, 2010; EuroCommerce & ERRT, 2010). As there is no action plan it will be difficult to measure progress, or to compare signatories with other retailers who are making sustainability improvements without signing up to this code.

7 GREEN PUBLIC PROCUREMENT (GPP)

Policies to promote sustainable consumption in the public sector are in this paper dealt with specifically under the term Green Public Procurement (GPP).

In many countries, governments are a main consumer of goods and services. The average share of public procurement of GDP is about 16% in the countries of the European Union. Governments have enormous power to influence markets towards sustainability through the quantity of their purchases while providing good sustainable consumption examples for their citizens (OECD, 2008). Green Public Procurement (GPP) means that public authorities take account of environmental factors when

procuring products, services or works. Its merits often include not only direct reductions in the environmental impacts from procurement in the public sector, but also:

- helping to strengthen markets for green(er) products and services and make these more available and more affordable;
- stimulating environmental innovation;
- providing long-term economic savings, particularly where products consume large amounts of energy over their lifetime;
- contributing to changing societal norms through increasing awareness about green products and services and through leading by example;
- potentially creating green jobs and reducing social costs via reduced environmental impacts.

GPP policies in European countries have to some extent been led by the EU. In 2003, the European Commission in its [Communication on Integrated Product Policy](#) (IPP) encouraged Member States to draw up publicly available National Action Plans (NAPs) for greening their public procurement by the end of 2006. To date, 20 of the 27 EU Member States have adopted such plans, including all three Nordic member states, i.e. Denmark, Finland and Sweden (EC, 2010; REC, 2008).

The NAPs often contain an assessment of the existing situation and targets for the short-term future years, specifying what measures will be taken to achieve them. The NAPs are not legally-binding but provide political impetus to the process of implementing and raising awareness of greener public procurement.

A 2008 study for the European Commission (PWC, 2008) demonstrates that amongst EU-27 countries there are seven front runners implementing GPP at a rapid rate. All three Nordic EU member states, i.e. Denmark, Finland and Sweden were amongst this group, which had, on average, 55 % of the total number of contracts in 2006/07, representing 45 % of the total value, in line with GPP requirements in ten priority sectors.

In addition to Denmark, Finland and Sweden, Norway and Iceland have also introduced a GPPP policy (EC, 2010; Icelandic Ministry for the Environment, 2009). The most ambitious Nordic country in terms of GPP targets seems to be Finland, which aims at 70% of State procurements fulfilling GPP criteria by 2010 and 100% by 2015. The targets for Municipalities are set at 25% of Municipal procurements fulfilling GPP criteria by 2010 and 50% by 2015.

All Nordic countries have developed GPP criteria for product groups as well as guidelines and some countries have introduced institutions aimed at supporting implementation of the GPP action plans. Examples of these include the Swedish GPP helpdesk, the Danish Partnership for GPP, the Finnish helpdesk in environmental technologies, Norwegian County focal points and the Danish Panel for Green Procurement. Furthermore, Sweden organises an annual GPP conference with a price awarded to the greenest contracting authority and the greenest supplier. In several Nordic countries GPP efforts are merged or coordinated with similar initiatives aimed at the private sector.

A new impetus has been given to GPP by the publication of the EU's *Communication on Public Procurement for a Better Environment* (EC, 2008b) which has been followed by the development of GPP criteria, in close cooperation with all stakeholders. As of August 2010, GPP criteria had been developed for 18 product groups.

The [RELIEF](#) project, co-funded by the European Commission, sought to assess the potential benefits if GPP were to be widely adopted across the EU. Although the project's findings date from 2003, they still provide an indication of the potential of GPP. Some of its findings are:

- If all public authorities across the EU demanded green electricity, this would save the equivalent of 60 million tonnes of CO₂ (equivalent to the emissions of 6.5 million Europeans). Nearly the same saving could be achieved if public authorities opted for buildings of high environmental quality.
- If all public authorities across the EU were to require more energy-efficient computers, and this led the whole market to move in that direction, this would result in 830.000 tonnes of CO₂ savings (equivalent to the emissions of 90.000 Europeans).
- The purchase of organic food by all EU public authorities could offset the eutrophication impacts of over 3.5 million people and reduce green house gas emissions by an amount equivalent to the emissions of 600,000 people.

Source: RELIEF project – www.iclei-europe.org/relief

Overall, GPP is considered an effective approach in promoting sustainable consumption. While the major direct benefit of GPP lies in the direct reductions in the environmental impacts from procurement in the public sector, GPP can also be a powerful tool in promoting more sustainable consumption in households by making green(er) products and services more available and more affordable, by fostering innovation in production and by increasing awareness and changing societal norms.

Example: Government purchasing and leasing of cars

Since December 2005, the Swedish Government implemented new regulations stipulating that 75% of all cars purchased or leased by a public authority must be green cars. This has increased the demand for green cars and eventually this could lead to an increase in green cars available on the used car market. Importantly, it could also contribute to a positive change in social norms regarding green cars (EUPOPP 2009).

8 COMBINING POLICY INSTRUMENTS

Research shows that policy implementation using a single type of instrument alone often has limited impact. Using a complementary mix of various types of policy instruments addressing different groups of actors is likely to increase the effectiveness of policy implementation in the field of sustainable consumption (OECD, 2010; Rubik *et al.*, 2009; Jackson, 2005; Jackson and Michaelis, 2003). Furthermore, the most efficient policies to promote sustainable consumption depends on the context. *“The effective policy approach will be determined by a range of factors including the issue, existing legal frameworks and the social and cultural environment.”* (OECD, 2008a: 49).

The ASCEE policy evaluation project (Rubik *et al.*, 2009) also concludes that the effectiveness of policy instruments is highest when a mix of measures is used, and that raising awareness on its own without changing the “action context” will have limited success: *“Accordingly, the organic labels in Europe are mainly successful if they are combined with economic support to organic farmers and increased social responsibility among retailers and the food industry. This is clearly shown in the*

Danish organic market. When an information campaign is used in connection with changes in the economic or political framework, they will surely have larger potential for change in the behaviour of consumers and households.” (Rubik et al, 2009:35).

The OECD report “Household Behaviour and the Environment (2008b) also notes that some economic incentives could actually undermine people’s motivations to behave sustainably, and so could conflict with other policy tools, such as information tools: *“In the case of recycling, given the importance that norms seem to have in the motivation of households to recycle (e.g. sense of civic duty, wish to be seen by others as a responsible citizen), the adoption of a pricing system and/or making recycling mandatory may lead to “crowding out” effects.”* (OECD, 2008b: 195).

Example: Policy mix promoting sustainable transport in Sweden

Sweden is promoting sustainable transport with a mix of tools: carbon-differentiated vehicle tax; an environmental tax on air travel; tax exemptions for diesel cars with particle filters and alternative fuel engines; congestion charge in Stockholm; free parking for green vehicles (OECD, 2008a: 52).

9 CONCLUDING REMARKS

An integrated approach, one that balances strong (regulatory and economic) and soft (information based and voluntary) instruments and targets both the supply and the demand sides, seems to be the most effective approach to promote more sustainable consumption. The United Kingdom’s Sustainable Consumption Roundtable (2006) suggests that there is a need for a mix of complementary policy responses that enable, encourage, exemplify and engage people, businesses and public authorities in what they call the ‘4 Es’:

- **encourages**, including through the tax system, reward schemes, penalties and enforcement;
- **enables** through, for example, giving information, education, providing facilities and infrastructures and removing barriers;
- **engages** through community action, media campaigns, networks, etc.; and
- **exemplifies** by leading by example and achieving consistency in policies.
(Sustainable Consumption Roundtable, 2006)

In practice, encouraging, enabling, exemplifying and engaging sustainable consumption more effectively will require intelligent and innovative policy packages that mix different complementary policy instruments – regulation, economic instruments, information and awareness raising, voluntary agreements and investments in infrastructure (Rubik et al, 2009; Berg, 2007; Jackson and Michaelis, 2003; Sustainable Consumption Roundtable, 2006) and integrate sustainable consumption into other policy arenas.

Such an approach is necessary to tackle the rebound effect and enhance policy coherence. The main objective should be to make sustainable alternatives available, affordable and attractive as well as to make consumers aware of them. Connected to this is the need to develop social norms and societal values that support sustainable lifestyles. This work has begun in the research community but needs to be translated into concrete policy initiatives. (EEA, forthcoming)

The ASCEE project supports such approach. *“effective sustainable consumption policies will strongly benefit from addressing issues that are beyond supply side and efficiency improvements. One should more explicitly address use patterns and consumption levels. Achieving such changes in consumption patterns and reductions in consumption volumes has been referred to as “strong sustainable consumption” (Fuchs and Lorek 2005: 262f.). This concept is stricter than the so called “weak sustainable consumption” (ibid.) in which consumption efficiency is improved, i.e. the amount of environmental burden per product unit diminished. Supporting the development and proliferation of 3 litre vehicles would be an example for the latter, getting more people to take the train instead of the car, and/or travelling shorter distances or less often would be an example of the first (ibid.: 263). Both concepts are necessary to reach current sustainability goals.”*

The ASCEE project further presents the following specific recommendations for policy-makers:

- acknowledge the fact that consumption is a policy field in its own right,
- abandon simplistic assumptions about the emergence and ‘mechanics’ of modern consumption patterns and support further exploration of the drivers of current (un)sustainable consumption patterns and of the barriers to more sustainable practices, and
- take the entire consumption-related life cycle of products – purchase, use, and after-use – into account and not confine themselves to strive only for efficiency improvements (weak sustainable consumption), but rather seek to exploit the full potential of altered consumption patterns and reduced consumption levels (strong sustainable consumption).” (Rubik et al., 2009: 114 – 115)

While government action in investments in sustainable infrastructure, the institutional setup to promote sustainable consumption and indicators to measure progress on sustainable consumption were not dealt with in detail in this paper, they remain important. A good example of investments in sustainable infrastructure is the investment in high-speed train infrastructure, e.g. as seen in Sweden. There are numerous good examples of innovative institutions to promote sustainable consumption, such as the Danish Energy Savings Fund or the Finnish Material Efficiency Centre. On indicators measuring progress on sustainable consumption interesting examples include indicators in the Finnish Sustainable Development indicator set and the Swedish indicators measuring global impacts from Swedish consumption. Furthermore, financing research for sustainable consumption and green lifestyles also represent an important array of action from Nordic governments. One good example of such is the Finnish Envimat research programme.

Overall, most policies aimed at promoting more sustainable household consumption in place today have been using soft policy instruments, such as campaigns, eco-labels and other information-based instruments, whereas regulatory measures and extensive use of economic instruments to reduce impacts from private consumption are politically sensitive and consequently rare. Prominent exceptions include increasing taxes on supply of water, electricity and other energy services to households and measures introduced for traffic management including increasing fuel taxes, increased parking restrictions and a few examples of road pricing (e.g. Stockholm). There is still a great unharvested potential for promoting more sustainable consumption and green lifestyles through policy intervention in the Nordic region.

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