

**Background Paper**  
**for**  
**4th RIM Preparatory Meeting on**  
**Sustainable Consumption and Production**  
**Progress Review of Policy Development**

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# 1 INTRODUCTION

## 1.1 Background

The 1992 International Conference for Environment and Development identified changing unsustainable patterns of production and consumption as a global priority within Agenda 21 for Sustainable Development. The 2002 World Summit for Sustainable Development (WSSD) in Johannesburg, South Africa, reiterated the international consensus, concluding that “*Fundamental changes in the way societies produce and consume are indispensable for achieving global sustainable development. All countries should promote sustainable consumption and production patterns, with the developed countries taking the lead .....’* At the WSSD a Plan of Implementation was endorsed which called for the development and implementation of a 10-Year Framework of Programmes (10YFP) for sustainable consumption and production.

An International Expert Meeting on Sustainable Consumption and Production coordinated by UNEP and UNDESA met in Marrakech, Morocco in 2003 to begin to facilitate the global process (thereafter termed the Marrakesh process) of developing the 10YFP.

Within the United Nations Economic Commission for Europe (UNECE) region, Environment for Europe Ministerial Conference held at Kiev in 2003 first commitments were made towards SCP. At the next meeting in Belgrade, 2007, Ministers committed to the ‘*development of national programmes, strategies and implementation plans, sub-regional and regional partnerships, involving stakeholders, in order to promote sustainable use of resources and sustainable consumption and production patterns ....’* Some countries had already or have since developed and begun implementation of SCP strategies and action plans in line with these commitments.

The 10-YFP will be one of the main thematic topics of the UN Commission for Sustainable Development (CSD)<sup>1</sup> 18<sup>th</sup> and 19<sup>th</sup> sessions in 2010 and 2011. A draft input to CSD18 and 19 is being prepared by the Marrakech Process Secretariat for the CSD Bureau and its participants to assist the deliberations on the 10YFP. Regional Implementation Meetings (RIMs) are organized before CSD sessions to prepare regional inputs to this. UNECE has organised a Fourth Regional Implementation Meeting (RIM-4) on Sustainable Development on 1-2 December 2009, with the aim of preparing the UNECE contribution to the CSD18. A preparatory workshop is taking place one day prior to the above mentioned UNECE meeting with the objectives:

- To discuss and recommend the UNECE regional inputs and programmes to be included into the draft 10 Year Framework of Programmes for the UNECE RIM Meeting
- To discuss the sub-regional SCP priorities of South East Europe (SEE), Eastern Europe, Caucasus, Central Asia (EECCA)

## 1.2 Objectives and scope of this paper

The aim of this Background Paper is to review progress in the UNECE region to provide input to the preparatory workshop to the RIM-4 meeting to lay the foundations for discussion and for the formulation of recommendations for the UNECE regional inputs to the 10YP.

To this end the background paper:

- Assesses progress made on SCP strategies and SCP relevant policy at regional /sub-regional and national level in the UNECE region
- Provides some examples of initiatives, measures and tools utilised by government to implement of SCP policy at regional, national and local level
- Identifies some key opportunities, obstacles and gaps in the promotion of SCP, and
- Makes recommendations on further promotion of SCP for the UNECE region

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<sup>1</sup> Information on CSD and its sessions can be obtained at [http://www.un.org/esa/dsd/csd/csd\\_index.shtml](http://www.un.org/esa/dsd/csd/csd_index.shtml)

Section 2 of this paper identifies the key focus areas for SCP policy and briefly outlines the kind of tools and measures that can be used to implement policy.

Section 3 of the paper provides a brief overview of the status of SCP policy (including strategies, action plans and programmes) in the main regions within UNECE e.g. EU and EFTA countries, North America and in the EECCA and SEE regions. A complimentary non-exhaustive list of SCP-related policy and strategy is presented in Annex 1.

Section 4 provides an overview of the more concrete tools and measures used in the various UNECE sub-regions for implementation of the SCP policies identified in Section 3.

Finally, Section 5 considers key opportunities, obstacles and gaps in the promotion of SCP and makes recommendations for how these opportunities should be tackled.

This background paper has mostly used secondary sources for collecting information on policies and instruments relevant to SCP developed over the past few years in the UNECE area. As a result it may omit some key recently adopted policies or measures at national and state/province level.

## **2 FOCUS AREAS FOR POLICY AND ACTION**

### **2.1 The need for SCP**

The UNECE region covers 56 member countries in widely varying stages of development, with large differences in population, in per capita GDPs and incomes, in the composition of economies, in composition of energy production, in cultural norms and in levels of per capita environmental pressures. Nevertheless, it can be said that all countries lie on development curves which either now or in the not so distant future will prove unsustainable.

Consumption in the transition countries in EECCA and parts of SEE remains low by OECD standards, and in parts of the Caucasus and Central Asia access to basic needs remains a critical issue for significant parts of the population (UNEP & EEA, 2007). At the same time the economies of many of these countries have high material and energy intensities due to inefficiencies in industry, in infrastructure and communal services, and due to a dominance of heavy industries that have in part been 'outsourced' from Western Europe (UNEP & EEA, 2007).

The developed countries of Western Europe (EU and EFTA) and North America, meanwhile, have generally lower energy and material intensive economies due to improved efficiencies in industry and economic restructuring towards more service-based economies. However, increases in consumption of material goods and services have outpaced efficiency improvements (UNESCO, 2009) and some key per capita environmental pressures are far in excess of sustainable thresholds.

Transition countries of EECCA and SEE are following similar development patterns to the richer economies of the UNECE region with the growing middle class in urban areas mirroring unsustainable western trends in consumption (UNEP & EEA, 2007).

Direct material inputs into North American and EU economies are high at 27 tonnes/capita/year in Canada, 21 tonnes in the United States (UNESCO, 2009) and 17 tonnes in the EU. While direct material input is stable or falling, there is evidence that the indirect global material use related to consumption in these countries is still rising, as more goods from material intensive industries are being imported.

The ecological footprint of Western Europe exceeds available global biocapacity per global citizen by a factor of 2.5, while in North America the factor is more than 4. More than half of the countries of EECCA and SEE have footprints higher than sustainability limits (WWF, 2008).

The problem of climate change demonstrates a clear tangible need for changes in patterns of consumption and production. Global emissions of greenhouse gases, far from reducing, are forecast to be 60% higher by 2020 than in 1990 under current development patterns (European Commission, 2009).

All countries of the UNECE region require sophisticated policy packages to engage and encourage institutions, industry, business and citizens in tackling the unsustainable patterns of consumption and production which are the key cause of global environmental problems such as climate change.

## 2.2 The policy scope of SCP

A first task in reviewing progress in SCP policy and action is to stake out which elements of government policy and strategy should be considered in the broad scope of SCP. To date there has been no widely accepted framework for mapping out this scope. This paper provides one suggestion for a logical structure for framing SCP policies. The structure is based on a framework developed by the ETC/SCP for the European Environment Agency (ETC/SCP & EEA, 2009a). The framework was developed for use in Europe but can be equally applied to other sub-regions. A diagram representing the structure is given in Figure 1.

### ***Overarching policies***

The upper level of the SCP policy scope is represented by **overall policies and policy measures supporting the implementation of SCP**. The group comprises overarching economy-wide cross-cutting strategies introduced at the level of the national or regional economy and thus relevant to all economic stakeholders. It includes policies/strategies partly or wholly aimed at SCP regional and national sustainable development strategies and other broad cross-cutting strategies e.g. environmental action plans or climate strategies. These are often adopted at the highest level by government.

These policies may include concrete targets and goals and indicators for measuring progress. These form another element of the upper level of the policy structure.

Finally, consideration should also be given to policies defining the rules for the development, assessment and adoption of new policy (i.e. defining the policy cycle) and the institutional capacity for advancing SCP. This includes institutional structures, priorities and cooperation between ministries, and between government, research institutions and NGOs.

### ***SCP policies along the life cycle***

Secondly, there are more focused policies aimed at individual parts of the life-cycle chain of products. These are often developed and administered by individual ministries.

For SCP **policies along the life-cycle stages** the following policy areas are distinguished:

- *The use and management of raw materials* covering policies targeted at the use and management of raw materials including exports and imports.
- *Leaner and cleaner production and the environmental technologies* covering cleaner production (as opposed to “end-of-pipe solutions”), environmental management in business, greening of supply chains, environmental accounting and reporting.
- *Better products and services and the market place*; covering policies aimed at promoting the supply and sale of greener/more sustainable products and services
- *Smarter consumption* includes policies aimed at exerting direct influence on the decision-making of private consumers and policies aimed at changing or adjusting the “framework conditions”, and also covers policies on more sustainable procurement by the public sector.
- *End of life / waste* comprising policies aimed at waste prevention and promoting sustainable waste management practices.

### ***SCP policies specific to key production-consumption areas***

At the same level there are **SCP policies specific to the production-consumption areas of highest environmental impact** this paper concentrates on three areas: *food and drink*, *housing* (including household appliances) and *mobility* (including tourism) which have been identified as being those which together cause the majority of environmental pressures.

- *Food and drink* covering policies aimed at promoting more sustainable agriculture and food manufacturing, policies aimed at reducing food waste etc.
- *Housing* referring to policies on sustainable use of construction materials, promotion of low

energy and zero energy housing and prevention of construction waste.

- *Mobility* covering policies aimed at promoting more sustainable modes of transportation, policies aimed at reducing transport demand, and policies aimed at improving the eco-efficiency of transportation.

### ***Policies aimed at social aspects***

A final thematic area of SCP policies is that of **policies aimed at social aspects**. This includes for example policies aimed at poverty reduction but with an environmental element, policies promoting socially responsible investment, corporate social responsibility, fair trade, local and regional products and policies aimed at creating new 'green' jobs.

## **2.3 Types of instruments for implementing SCP policy**

A large number of measures and tools have been or could be used for the concrete implementation of SCP-relevant policy and strategy:

- *Economic instruments* – include fiscal instruments such as fees and charges, taxes and subsidies, emission trading schemes, feed-in tariffs, tradable permits, deposit-refund systems, etc. Examples include energy taxes, water taxes and subsidies for development or feed in tariffs for renewable energy installations.
- *Regulatory instruments and standards* – include elements such as bans, emissions limits, integrated pollution prevention and control, product standards and building codes.
- *Voluntary agreements* – are often developed by partnership between government and business and include voluntary reporting initiatives, setting of voluntary targets for product improvements and emissions reductions, voluntary certification schemes etc.
- *Information-based instruments* – include instruments such as eco labelling, consumer guidelines, consumer campaigns, websites and portals, all aimed at raising awareness about SCP.
- *Education and training* – e.g. the integration of SCP thinking into both formal and informal education in schools, universities etc.
- *Investments in sustainable infrastructure* – such as improved public transport, more efficient buildings, renewable energy installations and district heating systems.
- *Research funding*

There are overlaps between some of the different types of policy measures. As one example eco-labels can also be considered as a voluntary instrument and could thus be placed in this category. Furthermore, research shows that while implementation of a single policy instrument alone often has limitations, relying on **policy mixes** is likely to increase the effectiveness of individual policy measures implemented in the field of SCP. Thus the different types of policy measures should not be seen in isolation, but rather as different elements supporting each other when used in combination in a policy package.

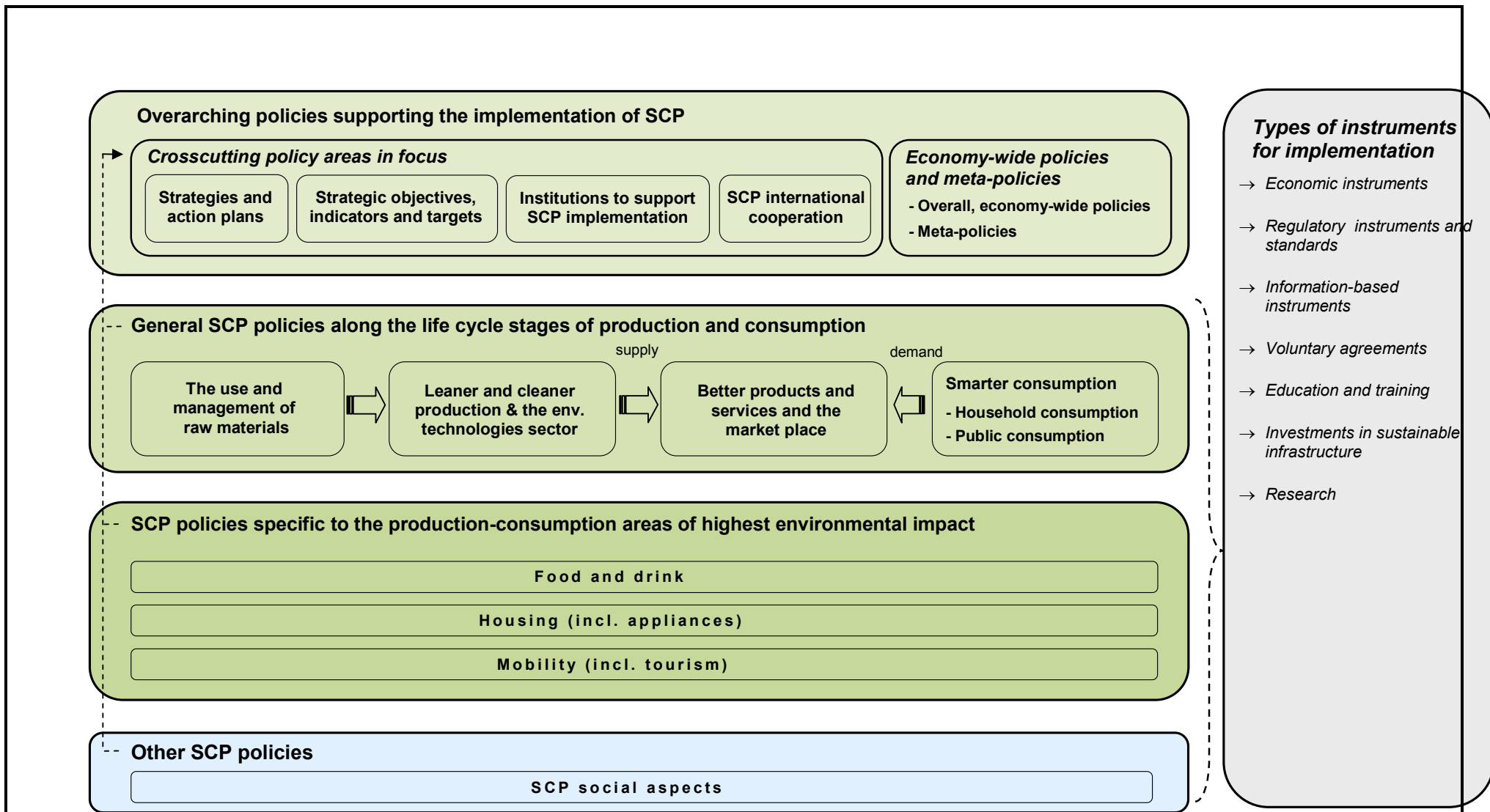


FIGURE 1: Scope and structure of thematic areas and policy measures for SCP Developed from ETC/SCP & EEA (2009)

### 3 PROGRESS IN SCP POLICY DEVELOPMENT IN THE UNECE AREA

#### 3.1 Introduction

The paper attempts to identify highlights and general trends in policy development on SCP in the various regions of UNECE rather than providing a comprehensive overview. Further information is provided in Annex 1.

The various broad sub-regions in the UNECE region are considered separately. The EU is given two sections – firstly a section on the policy framework for encouraging SCP at the EU community level, and then a description of national policies developed in individual Member States over and above implementation of EU Directives.

#### 3.2 The policy framework supporting SCP at the EU level

The EU has taken some important steps over the past decade at developing a more integrated policy framework aimed at encouraging sustainable consumption production patterns in its Member States.

##### **Overarching policies**

The key overarching strategy with relevance to SCP is the renewed **EU Sustainable Development Strategy (EU SDS)** from 2006 (Council, 10917/06). It identifies SCP as one of seven key challenges to be tackled in the EU and in doing so provides a better interlinkage between the economic targets in the Lisbon strategy and sustainable development goals than was provided by the previous SDS. Amongst other provisions on SCP it made a commitment for the development of an *EU SCP Action Plan*.

In addition, the Commission declared in the *EU SDS* that it would work together with Member States in the promotion and dissemination of social and eco-innovations and environmental technologies, engaging in dialogue with business and relevant stakeholders aimed at setting environmental and social performance targets for products and processes, enhance the uptake of *Green Public Procurement* and working with retailers.

Prior to the revised SDS the *Sixth Environment Action Programme of the European Community* (6<sup>th</sup> EAP) for the period 2002-2012 provided an overarching driver for progressing SCP in the EU though at the thematic level of environmental policy direction rather than an overall strategy for development in the EU. SCP is given as one of the “strategic approaches” to meeting environmental objectives with the particular aim “*to internalise the negative as well as the positive impacts on the environment through the application of a mix of measures including market based and economic instruments*”.

The **EU Sustainable Consumption and Production and Sustainable Industrial Policy (SCP/SIP) Action Plan** (COM(2008) 397/3)<sup>2</sup> as presented by the Commission in 2008 can also be considered as an overarching strategy for SCP, providing a framework for the development (or further development) of a set of Directives and Communications which have key relevance to SCP. The Action Plan further progresses initiatives set in motion by the Commission’s **Integrated Product Policy (IPP)** from 2003 (COM/2003/0302 final) but widens and strengthens the scope covered by the IPP.

The scope of the EU SCP/SIP Action Plan is largely aimed at improving the environmental performance of products and increase the demand for more sustainable goods and production technologies. It includes a number of proposals for achieving this including a revision of the 2005 *EU Eco-Design Directive for Energy-Using Products* to include a wider range of products, a strengthening and extension of the *EU Eco-label* and the *Energy Label*, a *Communication on Green Public Procurement* and the establishment of an *EU Retail Forum* to work on the promotion of sustainable consumption with retailers. A more detailed overview is provided in Annex1.

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<sup>2</sup> As the result of the mid-term review of the EU’s industrial policy the Commission was to develop an action plan also on sustainable industrial policy (SIP), parallel with the EU SCP Action Plan. During the inter-service consultation processes of these strategies it has been decided to develop an integrated action plan which addresses both SCP and SIP.

Several other EU strategies or action plans have relevance to the scope of SCP although they don't specifically name SCP as a policy goal. Examples of SCP-relevant over-arching strategies and initiatives include the *Cardiff Process* for the integration of environment issues into EU thematic policies (1998), the *Lisbon Strategy* and particularly its "environmental pillar" (2000 and 2005) and the Commission's *Climate Action and Renewable Energy Package* (2008).

With respect to meta policies (i.e. policies defining the rules of setting new policies) the *Commission Impact Assessment Guidelines* (2006 and 2009) and related procedural steps are relevant here and have become a major tool during the last few years in delivering more effective policies towards sustainable development and SCP.<sup>3</sup>

### **Indicators and targets**

Some long term quantitative targets with direct relevance to SCP have been adopted by the EU including greenhouse gas emissions reductions targets, renewable energy targets and targets for recycling in key waste streams. No concrete targets exist to date with respect to reductions in material resource use, more sustainable products or consumption patterns.

The EU Commission's statistical office, Eurostat, has responsibility for developing and maintaining indicators for sustainable development. The current set has a theme area on SCP which includes 13 indicators on the areas of resource use and waste, consumption patterns and production patterns. Eurostat has recently established Data Centres on Resources, Products and Waste which will collect data relevant to SCP and SCP indicators. The European Environment Agency (ETC/SCP & EEA, 2009b) and the Joint Research Centre are also involved in the cooperative development of SCP indicators for Europe.

### **Institutional Frameworks and Research**

The key institutions in the EU involved in environmental policy formation, analysis, research and data collection (Group of Four<sup>4</sup>) have established SCP units or have adopted SCP as a priority areas in their work programmes. An EU-funded network project implemented in the period 2005 and 2008, the so-called Sustainable Consumption Research Exchanges (SCORE) project established an EU-wide network of SCP experts, including researchers, policy-makers, business and NGOs<sup>5</sup>.

In terms of research the promotion of sustainable consumption patterns is one of the priority areas of the *EU's Seventh Framework Programme for Research and Technological Development (FP7)*, under the cluster sustainable management of natural and man-made resources. The development and promotion of eco-innovation receives funding from the *EU Competitiveness and Innovation Framework Programme (CIP)*.

### **International Cooperation**

Finally, the EU has also begun the integration of SD and SCP into its external cooperation programmes. For example through Sustainability Impact Assessments carried out in the context of Free Trade Agreements and through its flagship *SWITCH ASIA Programme* aimed at advancing sustainable consumption and production in Asia via the dissemination of knowledge and good practices gained with the implementation of SCP in the EU.

### **SCP policies along the life cycle**

Policies aimed at different parts of the life cycle of products include the *Environmental Technologies Action Plan, ETAP* (2004), the seven *Thematic Strategies* to support the practical implementation of the 6<sup>th</sup> *EAP* (2005/2006), a *Green Paper on Market-Based Instruments* (2007) and the *Raw Materials Initiative*.

The two thematic strategies of most relevance are focused on key parts of the life cycle. The

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<sup>3</sup> Before the Commission proposes new initiatives it assesses the potential economic, social and environmental consequences that they may have. Impact assessment is process that prepares evidence for the EU decision-makers on the advantages and disadvantages of possible policy options by assessing their potential impact.

<sup>4</sup> DG Environment, the Joint Research Centre, the European Environment Agency and Eurostat.

<sup>5</sup> <http://www.score-network.org/>

*Thematic Strategy on the Sustainable Use of Natural Resources* has the overall objectives of achieving an absolute reduction in the environmental impacts associated with resource use, though no targets have been set. The *Thematic Strategy on the Prevention and Recycling of Waste* aims to reduce the negative environmental impacts of waste generation and management both through better waste management and reducing the generation of waste.

### **SCP policies specific to key production-consumption areas**

There are a number of policy initiatives tackling some elements of the key production-consumption clusters. In the area of food and drink this includes a reform of the *Common Agricultural Policy*, CAP and the *EU Action Plan for Organic Food and Farming* (2004). In the area of mobility there is the *Greening Transport Package*, including the *Action Plan on Urban Mobility* (2009) mobility. In the area of housing the *Commissions' Action Plan for Energy Efficiency* (2006), the *Climate Action and Renewable Energy Package* (2008) and the *Energy Performance of Buildings Directive* (2002). The latter established a methodology for calculating the energy use of buildings, sets minimum efficiency standards for new buildings, and makes energy reporting and labelling of buildings placed on the market mandatory.

### **3.3 SCP policy development in EU Member States and EFTA**

This section provides an outline of SCP policy progress at the national level in EU Member States and EFTA countries.<sup>6</sup>

#### ***Overarching strategies and action plans***

To date only a few EU Member States or EFTA countries have developed dedicated SCP strategies or action plans. However, more and more of them are addressing SCP explicitly and comprehensively in their National Strategies for Sustainable Development (NSSD). For EU Member States, the inclusion of SCP as a key priority in the renewed EU SDS is probably amongst the key factors driving this trend.

Examples of countries that have prepared dedicated SCP action plans include the UK (2003), Poland (2003), the Czech Republic (2005) and Finland (2005). Examples of countries addressing SCP explicitly and relatively comprehensively in their NSSDs include Belgium, Czech Republic, Denmark, Greece, Italy, Hungary, Malta, the Netherlands, Norway and Romania.

Examples of national strategies in the focus of the 2007 ETC/RWM – EEA study and the pilot SCP Factsheets by the ETC/SCP and the EEA are outlined in more detail in Annex 1.

According to ETC/RWM – EEA (2007), the strategies selected for the review focus predominantly on the ecological aspects of consumption and production. Although aims and related action towards win-win situations for the environment and the economy can widely be found in the strategies, the social aspects of SCP as well as the main drivers of unsustainable patterns of consumption from this perspective (e.g. demographic changes, increasing levels of disposable income and urbanisation) receive significantly less attention. Further, the overall approach of strategies seems to combine consistent planning with the “building blocks” of SCP (e.g. labelling, GPP, education) with some more holistic considerations, according to the systems approach (e.g. fostering structural changes in agriculture, ecological tax reform).

In addition to overarching SCP strategies, countries have defined policy objectives and action towards SCP also in other types of economy-wide environmental strategies including, inter alia, environmental policies and/or action programmes and strategies and action plans addressing climate change and aimed at promoting renewable energy, energy efficiency and the efficient use of water (ETC/SCP and EEA 2009c).

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<sup>6</sup> This chapter is largely based on the findings of the study “National Sustainable Consumption and Production Strategies in the EU — a Comparative Review of Selected Cases” (ETC/RWM and EEA, 2007) and an ongoing pilot project by the EEA and its ETC/SCP aimed at identifying SCP and/or SCP-related policy objectives, indicators and quantitative targets defined in national strategies and action plans in six EU Member States (the pilot SCP Factsheets project). Countries in the focus of the 2007 study were Austria, the Czech Republic, Finland, France and the UK. The scope of the pilot SCP Factsheets project includes Austria, the Czech Republic, Denmark, Germany, France and the UK. The findings and results of the 2007 study and the pilot SCP Factsheets were extended with additional information whenever it was possible based on Internet-based literature review.

### ***Indicators and quantitative targets***

Indicators to monitor the implementation of SCP at the national level have been defined exclusively in relation to the preparation of NSSDs or dedicated SCP strategies. Two types of indicator sets are found: embedded SCP indicators, which are part of a larger set of sustainable development indicators and stand-alone SCP indicator sets (ETC/SCP and EEA, 2009c).

As regards quantitative targets, it seems that these have been defined in the more focused thematic strategies which are specific e.g. to the life-cycle stages or the key consumption areas, rather than in the overarching SCP strategies.

In general, both the indicators and the quantitative targets defined at the national level so far seem to reflect a predominantly production-oriented approach. At the same time, seeds of consumption-oriented approaches are also tangible and several innovative examples of indicators and targets which envisage changes also in consumption patterns have been developed (ETC/RWM and EEA 2007 and ETC/SCP and EEA 2009b).

### ***Institutional Frameworks and Research***

Traditional institutions (such as energy agencies) are increasingly integrating SCP-related considerations (e.g. the consumption-oriented approach) into their daily activities. In parallel with this, a considerable number of new institutions have also been established to foster the implementation of SCP. These new institutions predominantly focus on narrow topics, e.g. energy savings in households and usually do not specifically name SCP as a policy goal (ETC/SCP and EEA 2009b).

The coordination and monitoring of implementation of overarching SCP strategies are usually vested into the national environment ministry and an inter-ministerial committee. These latter are usually those which were involved in the development of the strategy (ETC/RWM and EEA 2007).

The promotion of research and innovation with focus on the furthering of the environmental technologies sector and to a lesser extent on socio-economic research, are a broadly shared area at the national level under SCP (ETC/RWM and EEA 2007).

### ***International cooperation***

International cooperation focuses largely on the transfer of environmental technologies and related support to developing countries and countries in transition. Overarching SCP strategies dominantly focus on domestic issues. Many contain an international dimension including important elements such as liberalisation of trade and the promotion of SCP in international fora. However, policy taking the perspective of the global economy, burden shifting and the global use of resources is rarely addressed (ETC/RWM and EEA 2007).

A further notable area of international cooperation is the Marrakech Process, the task forces of which are all led by EU Member States or EFTA countries.

### ***Strategies and action plans along the life cycle and specific to key production-consumption areas***

Besides the overarching and other economy-wide strategies as exemplified above, countries have prepared and are implementing several other types of environmental strategies and action plans with high relevance to SCP. These address e.g. the life-cycle stages of production and consumption or the consumption categories of highest environmental impact.

The most common types of strategic documents in this respect include raw material strategies, strategies to promote eco-innovation and Green Public Procurement as well as national waste management plans. In terms of strategies specific to the consumption areas of highest environmental impact, the most common type of policy documents include agro-environmental strategies and greening of transport strategies. Strategies to promote cycling and walking in cities are also becoming common (ETC/SCP and EEA 2009b).

### 3.4 SCP Policy Development in EECCA and SEE

#### ***Overarching Policies***

At the time of the Belgrade UNECE meeting in 2007 only a single country in the EECCA and SEE regions had adopted an SCP strategy at national level (Kazakhstan). The two years since, however, have seen the rapid emergence of SCP strategy in SEE as part of the development of National Strategies for Sustainable Development (NSSD) driven in part by efforts to streamline policy with that of the EU in preparation for future accession (Croatia and FYR Macedonia) or potential EU candidacy.

During 2007-2009 NSSDs were adopted by the governments of Croatia (Government of Croatia, 2009), Serbia (Government of Serbia, 2008), FYR Macedonia (Government of Macedonia) and Montenegro. All include SCP variously as a key challenge, objective or principle at the core of the strategies. The NSSDs for the first three named countries (but not Montenegro) also include thematic chapters that directly tackle SCP.

The scope of SCP policy within the NSSD strategies is broad focusing on issues such as improvement of resource productivity, decoupling of environmental pressures from economic growth, cleaner production, investment in eco-technologies, the development by business of more sustainable products, information and labelling to direct consumers towards these products, greener public procurement, corporate social responsibility and environmental management systems in business, and finally green tax reform. The scope of SCP in the NSSDs of Croatia and FYR Macedonia extend beyond sustainable products to the encouragement of more sustainable lifestyles, despite the fact that over-consumption is viewed as a future rather than a current SCP challenge, with the exception of consumption of energy and water services. Croatia is currently working on the development of an SCP action plan.

Urgent improvements to manufacturing and heavy industry which in many cases are using obsolete and inefficient equipment and processes are also emphasised in the NSSDs of Serbia and FYR Macedonia as is a need for a switch to more service-based economies and a growth in SMEs.

Despite EU candidacy status Turkey has yet to develop a sustainable development strategy, However, the Turkish *National Environment Strategy and Action Plan* (UÇEP) and the Environmental theme in the national *Five Year Development Plans* together provide some cross-cutting links between environmental protection and economic development plans.

SCP is yet to emerge on the political agenda in most of EECCA. Kazakhstan's Strategy on Sustainable Development of 2007-2024 has some elements of SCP (UNEP & EEA, 2007), moreover, the country adopted the '*SCP model*' in 2009 and a 'State Environmental 10 years Programme' is currently under preparation, which includes a sub-programme on SCP. Belarus recently adopted a national sustainable development strategy which includes some SCP concepts though SCP is not named (UNEP & EEA, 2007; Onisimova & Ignatenko, 2008). Finally, Moldova's *National Strategy of Social and Economic Development* from 2005 refers directly to SCP and includes a number of SCP relevant concepts (Onisimova & Ignatenko, 2008).

While environmental policy in EECCA is mostly developed and implemented separately from sectoral policy and focuses on eco-system protection, there are two examples of where environmental policy includes cross-cutting elements relating to SCP. Ukraine's *Concept of National Environmental Policy to 2020* includes SCP-related issues such as the need for reduced resource intensity and introduction of environmental priorities into industry. The Russian Federation includes resource use decreases and energy efficiency improvements among *environmental policy* priorities (Onisimova & Ignatenko, 2008).

#### ***Indicators and targets***

The NSSD's of Croatia and Serbia take the important step of including indicators for SCP in their broader Sustainable Development Indicator (SDI) sets. The Serbian NSSD includes 8 indicators under the themes of energy, waste, transport and the balance between production and consumption. The SCP area within the Croatian SDI set is named Sustainable Management and Consumption and includes 21 indicators under the themes of waste, agriculture, consumption and social responsibility. It is not thought that SCP relevant indicators have been adopted in other parts of EECCA and SEE.

Similarly to the EU, concrete SCP-relevant goals in EECCA and SEE are mostly limited to goals in waste generation and management, energy intensity and generation of greenhouse gases.

### ***Institutional Frameworks, Research and International Cooperation***

There appears to be a lack of inter-ministerial coordination and interaction in EECCA, (and to a lesser extent in SEE) which may be holding back the development of cross-cutting theme areas such as SCP. Neither have significant resources have been set aside or departments set up to tackle SCP. This may reflect a general lack of resources for environmental protection and sustainable development in these sub-regions.

Coordinated international cooperation has taken place to date via the *UNECE Environment for Europe* process. In addition, international organisations and Western European and North American governments and institutions have provided aid in the progression of SCP relevant policy and action. UNDP, the UNEP Coordination Center for the Mediterranean Action Plan and the Italian ministry for Environment, Land and Sea, for example, provided help to the Government of Montenegro in the development of its NSSD. Foreign donors and International Financial Institutions (e.g USAID, GEF, EBRD,) and western European governments (in some cases via Kyoto mechanisms) have aided or provided loans for a large number of refurbishment projects for inefficient multi-apartment housing and district heating networks.

### ***SCP policies along the life cycle***

There are few examples of policy aimed at the sustainable management of resources other than energy in either EECCA or SEE. Uzbekistan, however, has adopted policy on the sound management of natural resources (UNEP & EEA, 2007) and Kazakhstan's NSSD includes objectives to achieve balanced levels natural resource extraction (UNEP & EEA, 2007).

Cleaner production is a more common theme and many countries have policies for improving the efficiency of heavy industries and manufacturing (e.g. Moldova, Belarus, Albania, Armenia, FYC Macedonia, Ukraine, Russia) with targets and measures for energy efficiency improvements in both industry, building infrastructure and municipal energy services. The NSSD of Serbia aims to introduce the concept of Best Available Technologies (BAT) from the EU's IPPC Directive into Serbian industrial policy along with other regulations to promote cleaner production. Improved efficiency and reduced emissions from the energy sector is a particularly strong theme. For example Albania's *Law on Energy Efficiency and Renewable Energy*, Azerbaijan's *Strategy for sustainable Development of the Energy Sector*, and the *Energy Strategy to 2020* of the Russian Federation. There is not much policy in either EECCA or SEE, however, concerning Environmental Management Systems in business, and the growth in EMS is mostly in the export market (UNEP & EEA, 2007). One exception is in Serbia whose NSSD includes policy to promote further uptake of EMS.

The main area where unsustainable consumption is tackled in policy in EECCA countries is in the use of water and energy services by households (see below). Policies in a number of countries aim to tackle wasteful consumption behaviour through gradual introduction of water meters and increasing payment by use and raising of tariffs. However, poverty reduction and access to basic needs are also key challenges in the SEE and EECCA sub-regions, and policy aimed at reducing wasteful practices must also take account of the needs of the significant portion of societies living in poverty.

Green Public Procurement (GPP) is not practised to any great extent either in SEE or EECCA. However, some countries are making steps in creating legal and policy frameworks for GPP. For example, Uzbekistan's *Decree on Procurement of Chemical Substances for Agriculture* demands that ecological and social factors are taken into account in procurement decisions (UNEP & EEA, 2007). Bosnia and Herzegovina and Montenegro's Public Procurement Laws also include environmental provisions though no targets.

Waste management policies and strategies exist in all countries for both municipal and industrial waste. These variously aim at increasing waste collection, improved management of hazardous waste, improving the environmental profile of landfills and in a few cases encouraging waste prevention and increased levels of recycling (i.e. Croatia).

### **SCP policies specific to key production-consumption areas**

SEE and EECCA countries are moving forward with respect to key consumption-production clusters mostly through the gradual integration of environmental and social issues into sectoral policy on agriculture and transport.

Relevant sector-based policies in EECCA and SEE include: policy in the transport sector aimed at reversing a general decline in quality and use of public transport and improvements in fuels and fuel efficiency of vehicles; sustainable agricultural strategies integrating environmental and poverty reduction considerations (Armenia, Croatia, Serbia) and policy supporting organic production through introduction of organic food labelling (Kazakhstan, Croatia) and traditional food production in sensitive areas (Armenia, Croatia, Montenegro) (UNEP & EEA, 2007).

### **3.5 SCP Policy Development in North America**

#### ***Overarching Policies***

Neither Canada nor the US has adopted national frameworks or strategies for sustainable consumption and production. However, both countries have implemented and are still actively developing a wide spectrum of policies and programmes at the national, state/provincial and local levels which have SCP<sup>7</sup> relevance.

At the strategic level Canada passed the *Federal Sustainable Development Act of 2008*: an Act which necessitated the creation and implementation of sustainable development goals and targets and a *Federal Sustainable Development Strategy*.<sup>8</sup> Four previous rounds of sustainable development strategies for Canada have been developed beginning in 1997. However, in line with Canada's decentralised approach these were developed and adopted by the Canadian Environment Ministry, *not* by central government. As such they are Departmental sustainable development strategies and have acted as guidance documents for the development of environmental policy only. The forthcoming Federal Strategy will include government-wide initiatives, should enjoy a much higher status and may provide be an over-arching strategy to which all other sectoral and economic policy and strategies should refer.

The latest of the four Environment Canada strategies is the first to include SCP as an objective. However, the activities proposed are quite narrow and mostly limited to action by business and industry. For example, the Corporate Environmental Innovation initiative, a partnership-based government initiative to accelerate sustainability innovation and improve environmental performance in the corporate sector.

Canada's major recent SCP-related initiatives at the national level include, for instance, i) the *Federal Sustainable Development Act of 2008*, ii) the *Regulatory Framework for Air Emissions* (2007), iii) the *Environmental Management Act of 2003*, iv) the *Energy Efficiency Act of 1992*, v) the *Extended Producer Responsibility Task Group* (2007), and v) *Growing Forward: The New Agricultural Policy Framework of 2008*. At the provincial level, such measures consist of: i) Quebec's *Carbon Tax Act of 2007*, ii) Ontario's *Green Energy and Green Economy Act of 2009*, and iii) the *Western Climate Initiative of 2007*.

US policies and programmes with SCP relevance at the sectoral or single thematic level include, at the national and regional level: i) the *Network for Sustainability*, ii) the *Energy Independence and Security Act of 2007*, iii) Executive Order 13423 *Strengthening Federal Environmental, Energy, and Transportation Management* (2007), iv) the *Clean Energy, Jobs and American Power Act* of 2009 (introduced but not yet adopted by the full Senate), and v) the *American Recovery and Reinvestment Act of 2009*. At the state level, measures include the California *Green Action Team* and the Massachusetts *State Sustainability Program*.

<sup>7</sup> "Sustainable Materials Management: Sustainable Consumption and Production: European Union Policy." U.S. Environmental Protection Agency. June 05, 2009. <http://www.epa.gov/swerrims/international/factsheets/200810-sustainable-consumption-and-production.htm> (accessed October 22, 2009).

<sup>8</sup> See Canada's *Federal Sustainable Development Act of 2008*, c.33 n.d.)

## **Indicators and targets**

Neither the US nor Canada have developed indicators for SCP either as a part of SD indicators or otherwise.

## **International Cooperation**

Canada and the US have both participated in international Sustainable Development (SD) and SCP dialogues and processes, albeit, in varying degrees. Both were signatories to Agenda 21 Rio de Janeiro in 1992. Canada signed the Johannesburg Plan of Implementation (JPoI).

Significant cooperation on SD at the North American regional level (Mexico, Canada and U.S.) began under the *North American Agreement on Environmental Cooperation (NAAEC)*, which complemented the environmental provisions in the *North American Free Trade Agreement (NAFTA)*. The U.S. and Canada's first ever meeting concerning SCP occurred at the *North American Workshop on Sustainable Consumption and Production (NAWSCP)* in 2008, which lent support to the Marrakech Process by suggesting complementary policy initiatives for promoting SCP patterns in the region.<sup>9</sup>

## **SCP policies along the life cycle**

There is no specific policy framework which focuses on resource efficiency or resource productivity in US and Canada. However, both US and Canada have policies on energy efficiency, such as the Energy Efficiency Act of Canada, and Energy Policy Act of USA.

Regarding policies on waste management and recycling, most of the policy efforts in North America are at state/province and municipality levels. Examples include deposit -refund system in Nova Scotia, Canada, the Plastic Bag Reduction Ordinance in San Francisco, US. The Environment Agency of Canada also implements the Extended Producer Responsibility and Stewardship programme for waste management.

With respect to production, both the US and Canada have policies that support Environmental Management Systems (EMS) and cleaner production. The U.S.'s *Strengthening Federal Environmental, Energy, and Transportation Management (2007)*, *Executive Order 13423* and Canada's *Auditor General Act* (amended in 1995) require all federal departments and agencies to mainstream EMS in their decision-making. The use of EMS has also been adopted through state and local legislation (e.g. State of Virginia and Clark County, WA), as well as throughout the private sector in the U.S. and Canada.<sup>10</sup>

In Canada, the British Columbian *Carbon Tax Act of 2008* and the Quebec *Carbon Tax Act of 2007* are sending price signals that promote cleaner production, while Ontario's *Green Energy and Green Economy Act of 2009* is set to add 50,000 new green jobs in 3 years; enhance renewable energy regulation, use and pricing, for example, through the promotion of feed-in tariffs (FiT). Currently, 11 U.S. states are considering FiT legislation and the State of Maine and the City of Gainesville, Florida enacted FiT legislation in 2009.<sup>11</sup> The *American Clean Energy and Security Act of 2009*, which is currently under consideration by the Senate, would lay the framework for establishing a nation-wide cap-and-trade system and energy performance labeling program, making improvements in national energy efficiency and creating more clean energy jobs.

## **SCP policies specific to key production-consumption areas**

Policies can be identified in both Canada and the US which aim to reduce environmental pressures from each of the key consumption-production based clusters both at Federal and State level.

Twenty-four American States are advancing on sustainable transport and mobility in the form of newly designed railway projects and networks. The Obama administration is allocating US\$ 13 billion in funds— US\$ 8 billion from the *American Recovery and Reinvestment Act of 2009* (ARRA) and US\$ 5 billion from the President's Budget— to sustainable transportation infrastructure

<sup>9</sup> "SPAC at a Glance." *International Coalition for Sustainable Consumption and Production*. 2008. <http://www.icspac.net/> (accessed October 22, 2009).

<sup>10</sup> See the State of Virginia's *Executive Order 35 and §2.2-2817.1 (2009)*.

<sup>11</sup> See City of Gainesville, *Ordinance No. 080566* and the State of Maine's *LD 1075, the Community-based Renewable Energy Pilot Program Law of 2009*

projects. The ARRA also extends the “Cash for Clunkers” programme. A 2009 Presidential Memoranda to the standard *Corporate Average Fuel Economy* (CAFÉ), established under the *Energy Policy Conservation Act of 1975*, allows various states to increase fuel efficiency standards for 2011 model automobiles.

The 2008 U.S. national “Farm Bill” was one of the most significant policy breakthroughs for promoting water and energy conservation and efficiency improvements within the agricultural sector.<sup>12</sup> The bill also put in place the foundation for the future adoption of *payments for ecosystem services* by authorizing the U.S. Department of Agriculture (DoA) to conduct monetizations of ecosystem services for agricultural producers and major landowners.<sup>13</sup>

Under the ARRA, US\$ 4.5 billion is allocated towards greening federal buildings by increasing energy efficiency and US\$ 5 billion set aside for subsidizing low-income home weatherization projects. The State of California’s *Green Building Initiative, Executive Order S-20-04*, works towards making public and private buildings within California 20 percent more energy efficient by 2015.

## 4 OVERVIEW OF SCP POLICY IMPLEMENTATION IN UNECE AREA

This chapter presents an overview of examples of different types of SCP policy tools and measures implemented in the UNECE area.

### 4.1 SCP policy implementation in EU and EFTA

A wide range of tools and instruments for implementation of SCP-relevant policy have been used to date in the EU and EFTA countries at EU, national and local level. In particular with respect to implementation of sustainable consumption policy, information-based tools and to lesser extent economic instruments seem to be favoured over regulatory instruments (Berg, 2007). Complimentary mixes of different tools in a single implementation package are also beginning to be used for SCP policy implementation.

#### ***Economic instruments***

Economic instruments related to SCP are increasingly applied in European countries to create incentives for sustainable behaviours. These include fees and charges, taxes and subsidies, tradable permits, deposit-refund systems amongst others. The main areas of application seem to be within the areas of low-energy housing, consumption of energy, water, in households as well as mobility. However, examples covering the areas of raw materials, recycling, purchase of renewable electricity and sustainable investments have also been identified.

At the EU level the best known example of the application of economic instruments is the *Emissions Trading Scheme (ETS)*, which was introduced by the EU in 2005 in order to meet the objectives of the Kyoto Protocol. The ETS limits carbon dioxide emissions from a broad range of industries, such as power generation, covering approximately 45 % of the EU’s CO<sub>2</sub> emissions.

National application of economic instruments within the EU and EFTA countries in the area of energy use in housing include White Certificates (Italy and France), financial support in building construction, rehabilitation and heating (Austria, France, Greece) and Eco-loan at zero rates (France). Other examples are differentiated taxes on registration of motor vehicles depending on energy-efficiency (UK, DK and FR), increase in taxation of private cars (FR) and tax exemption for electricity-based cars (DK).

Austria has launched the *futuro* (sustainable pricing) project which aims to label products by using ‘sustainable prices’ expressed in a virtual currency called *futuro*. The Euro expresses the market price of a good, whereas the *futuro* represents a virtual mark-up obtained through consideration of

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<sup>12</sup> Official title *Food, Conservation, and Energy Act of 2008, H.R. 6124*

<sup>13</sup> *Payments for ecosystem services* is an instrument for preserving and enhancing ecosystem services. Ecosystem services can be broadly defined as the benefits people obtain from services provided by ecosystems, for example, the regulation of water flow and climate.

ecological and social criteria for sustainability. The less sustainable a good, the higher the *futuro* price.

The *Dutch Green Funds Scheme* (GFS) is an example of use of economic instruments to promote sustainable investment. The Danish deposit and return system or the *Danish Packaging Waste Duty* are examples of incentives to promote recycling, while the *Greener Living Fund* (UK) is an example of an attempt to promote sustainable lifestyles through economic instruments.

### **Regulatory instruments and standards**

Several regulatory instruments have been implemented within the field of SCP at the European Union level. These include product performance standards (the EU EuP Directive), Extended Producer Responsibility (EPR) on waste management policies (the Packaging Directive and the WEEE Directive) and substance bans (the EU RoHS Directive).

Application of regulatory instruments to promote SCP at the national level is more rare. Examples include regulatory requirements for energy performance of buildings (e.g. the *German Federal Ordinance on Energy Saving*), regulation to promote renewable energy (e.g. the *Danish Renewables Levy*) and regulation requiring companies to display information on environmental performance (e.g. the French *New Economic Regulation*).

### **Voluntary instruments**

A wide range of voluntary instruments related to SCP are applied in several European countries and at the EU level. The latter include public-private collaboration (e.g. the newly launched Retail Forum), voluntary agreements (e.g. Voluntary agreements on energy efficiency for washing machines, refrigerators, freezers, dishwashers) and voluntary Environmental Management Systems (e.g. the EMAS registration system). An additional European initiative is the *European Pollutant Emissions Register* (EPER), which was launched in February 2004. The objectives of the register are the collection, storage and dissemination of emission data from industrial and agricultural facilities. EPER now includes emission data from about 10 000 facilities.

Examples of voluntary agreements at the national level include public-private collaboration to promote product-service systems (e.g. the Austrian *Sustainability Seal* for long lasting and easily repairable devices or the Austrian *High convenience repair and service centres* offering household mishap relieve), take-back systems (e.g. the Austrian take-back of mercury-thermometers), choice editing (e.g. the French convention on the withdrawal of incandescent bulbs from the market and promotion of low consumption lamps), collaboration with retailers (e.g. the German “Sustainable Retail Initiative”, the Danish retail panel, the British *Red/Green Calculator* or the French retailers’ commitments with regard to sustainable development) and voluntary certification systems (e.g. the French voluntary environmental certification scheme for farms).

The Irish *Environmentally Superior Products* (ESP) initiative is an example of an initiative aimed towards increasing the development of sustainable products, services or Product Service Systems (PSS) by Irish industry. Under ESP, a package of supports to include information and advice on designing more sustainable products and services as well as financial supports are available.

### **Information-based instruments**

Information-based instruments seem to be the most widely applied type of SCP related policy instruments overall – particularly at the national level. Measures include guidelines, portals, for raising awareness about sustainable choices, eco-labels and other relevant labels, campaigns, competitions, carbon calculators, ecological footprint calculators, etc.

Information-based instruments at the European level are numerous and include eco-labels (the European Ecolabel and the Energy Label), carbon calculators (Mycarbonfootprint.eu), campaigns (e.g. The *Control Climate Change* campaign), guidelines for authorities (e.g. the *Buying Green Handbook*), eco-tips for EU citizens (the EEA’s *Eco-agents*) and *Green Week*, an annual event organised by the EU Commission targeted at decision-makers, and environmental stakeholders.

Guidelines, portals, for making sustainable choices at the National level include information on sustainable consumption choices e.g. *Topten* (Switzerland), *Sustainable Shopping Basket* (Germany), *ToptenCZ*: website and database on the energy efficiency characteristics of household

appliances (Czech Republic), *EcoTopTen* (Germany), *topprodukte.at* (Austria), *Sustainable consumption portal* (Denmark), *Guide to environmentally friendly purchasing* (Denmark), *Environment & Greener Living* (UK) and *Internet site of the Association Consodurable* (France). The Swiss Topten has spread to include nine national topten websites in Europe.

SCP related campaigns at the National level include campaigns aimed at sustainable food and diets, e.g. National Action Plan *IN FORM* on healthy diet and more physical activity (Germany), *Bio-Action-Days* – Action Days on Organic Food (Austria), Campaign on the promotion of ecological agriculture and its products (Czech Republic) and *Love Food Hate Waste* (UK). Other campaigns are focusing more broadly on sustainable consumption (e.g. *One tonne less* (The CO<sub>2</sub> campaign)) (Denmark), Sustainable weeks (Austria), *Faisons vite, ça chauffe* Energy Campaign (France), *Green Responsibility – Make a difference* (Denmark), Promotion of Eco-Fair Trade products (Germany) and *We're in this together* (UK).

In addition to the EU Eco-label, numerous eco-labelling systems are also found at the national level including labels for general products (e.g. the *Nordic Swan* and the German *Blue Angel*), fair-trade (e.g. the German *TransFair* label), organic food (e.g. the German *Bio-Siegel*, the Swedish *KRAV* label or the Danish *Ø-mærket*), carbon labels (e.g. the Swedish carbon label), labels for sustainable travel companies (e.g. the Austrian *Nachhaltig Reisen*), labels for low-energy buildings (e.g. the French *High Energy Performance* label).

### **Education and training**

As a result of the ongoing UN Decade on Education for Sustainable Development (ESD), several countries have developed strategies for integration of ESD into curricula at all levels of the education system. Examples of specific programmes include the Czech *What's at home counts!* – Environmental education programme for young people, the Italian *Schole Futuro* and the Maltese *Eco Schools* project. Examples of eco-labelling of schools include the Austrian *Environmental Performance Eco-Label* for Schools and the Nordic *Eco Schools* label.

### **Other areas**

Other policy measures include specific initiatives such as city-bike systems and 'No ads' stickers for refusing junk mail as well as infrastructure investments such as the ambitious UK *Cycling City*, *Cycling Town*, which covers a huge investment in bicycle infrastructures in selected bicycle cities and towns.

### **Application of policy packages**

Introduction of policy packages consisting of several policy instruments supplementing each other has become more widespread in EU and EFTA countries. One example of such policy package is the EU SCP Action Plan launched by the European Commission in July 2008. The package addresses different actors (producers, retailers, public authorities and consumers) through a variety of different instruments (regulatory, voluntary and information based).

However, what is largely missing from this policy package is incentivising and norm-changing demand side (consumption) policies, such as a differentiated VAT or the introduction of a radical European ecological fiscal reform shifting taxes from labour to resources and environmental pressures.

## **4.2 SCP Policy Implementation in ECCA and SEE**

While SCP strategy and policy is gradually being put into place in SEE at least, concrete implementation of this policy remains lacking to date. This is in part due to the recentness of the strategies but also may reflect lack of earmarked resources, institutional capacity and possibly a lack of political will to back the rhetoric.

Similarly in both EECCA and SEE sectoral strategies appear often not to be backed by sufficient implementation and use of relevant policy instruments. Examples are in the implementation of waste management strategies and energy efficiency strategies. However, the story varies from country to country. For example, energy efficiency policy has been vigorously implemented in Belarus where the first 5 year program of implementation resulted in an 18.7% reduction in energy intensity of the economy. On the other hand, many of the actions identified in Russia's 1996

Energy Act were not implemented due to sensitivity to industrial and public resistance or to lack of resources to invest in programmes.

### ***Economic instruments***

Economic instruments have been used sporadically in EECCA and SEE with the goal of environmental protection, though mostly instruments aimed at industry rather than consumers. Examples are pollution charges in the Russia Federation, Moldova, and Ukraine, the use of resource taxes or charges for extraction of water and mineral resources, though these are sometimes one-off non-recurrent charges (for example in Russia), charges for production and import of hazardous products and taxes to encourage improved waste treatment and recycling in Armenia (UNEP & EEA, 2007), and tax incentives for agro- and eco-tourism in Belarus (Onisimova & Ignatenko, 2008). It is not clear how thoroughly or consistently these instruments have been administered. The administrative bodies in a number of countries are reported to lack resources to administer these charges methodically (UNEP & EEA, 2007).

Economic instruments have not been widely used for regulating consumption. On the contrary, rather than internalising environmental costs into the price of goods and services, subsidy of communal services was the standard practice of the centralised political systems and continued more or less throughout the 1990s (UNEP & EEA, 2007). In recent times, the emphasis has been on gradual increases in tariffs for communal services to the point where consumers pay for the full operational costs of the provision of these services and the accompanying phasing out of subsidies. Due to remaining high levels of poverty and social inequality, phased increases in tariffs have needed to include measures to protect the poor, either with continuing subsidies for vulnerable groups (e.g. the Russian Federation) or block tariffs with low prices for basic levels of use and higher prices for 'excessive' levels (e.g. Serbia, Georgia and Turkmenistan) (UNEP & EEA, 2007). A number of countries have laws which do not allow municipalities or private enterprises to raise tariffs unilaterally.

Finally, increasing tariffs can only operate to reduce wasteful practices if actual consumption is metered and consumers charged according to use. While metering of electricity and gas use is fairly widespread in both SEE and EECCA, metering of district heating and even more so water consumption at the household level is still rare, though it varies from country to country (e.g. Moldova has 100% household level heating metering). Tariff reforms have been most advanced for services where metering and payment by use is widespread i.e. gas and electricity and increases have been most rapid in SEE and in Georgia, Armenia and Moldova.

One further area where economic instruments are used in SEE and EECCA countries to influence consumption are in taxes on road taxes and fuel taxes for vehicles. Kazakhstan has a good example of differentiated annual vehicle taxes based on engine capacity. Fuel tax differentials between leaded and unleaded fuels is a further used in some countries aimed specifically at environmental improvement. However, while in some countries fuel taxes have increased rapidly in recent years (Belarus), in others (Kyrgyzstan and Armenia) they have declined. Tolls have been introduced on motorways in Croatia but for reasons of cost recovery rather than demand management.

### ***Regulatory instruments and standards***

Regulation has historically been the main instrument for policy implementation in both EECCA and SEE and much of the regulatory structure has been inherited from the central planning period. Regulation of industry includes end-of-pipe regulation both of emissions to air and water and management and reporting of waste. This continues to be a strong element of regulation particularly for emissions covered by international treaties. Emissions limits in EECCA countries tend to be unrealistically strict and as a result can't be enforced.

Building standards, including standards for insulation and heating envelopes are another common regulatory instrument which was inherited from the Soviet era. These standards are generally far lower than the equivalents in the EU. This situation has improved in the last few years in the Russian Federation with the introduction of stricter building standards and a building labelling system (UNEP & EEA, 2007). Other types of relevant regulation used in these sub-regions include standards for vehicles and fuels, bans on imports of used vehicles older than a certain age (e.g. Armenia) pesticide limits on food (e.g. Russian Federation) and other food standards, and control of toxic substances used in building construction (Moldova, Russia, Kazakhstan).

However, complicated permitting systems, inconsistent enforcement and low levels of fines for non-compliance generally undermine the effectiveness of regulation both in SEE and EECCA countries. Moreover environmental institutions often suffer from a weak mandate, overlapping or poorly defined responsibilities and inadequate budgets (UNEP & EEA, 2007).

### **Information-based instruments**

Croatia has implemented much of the EU legislation on environmental certification and labelling of organic food and energy certification and labelling of appliances and light bulbs. Turkey has mandatory energy labelling for a number of appliances following closely behind EU labelling initiatives. Albania has also made energy labelling of appliances mandatory under the *Albanian Energy Efficiency Law*.

Such labelling is not widespread in EECCA. While food labelling with respect to ingredients, food additives and nutritional value is mandatory in many EECCA countries only Kazakhstan has so far engaged in the process of environmental labelling of food products. Armenia, meanwhile, is the only country in EECCA to have a mandatory requirement for energy labels on appliances.

The Russian Federation has introduced a progressive new set of energy standards and an accompanying labelling system for buildings which is being adopted up by other countries in the region such as Kazakhstan. Turkey also transposed much of the EU's Energy Performance of Buildings Directive including energy labelling into its *Energy Efficiency Law for Buildings* in 2006<sup>14</sup>.

Information campaigns have been used by municipalities and donor organisations in connection with energy use in buildings. Examples are a pamphlet called Plus 20 issued by the Moscow Centre for Energy Efficiency providing information on the costs and payback times of low cost energy efficiency improvements in households and the 'Use energy rationally' campaign conducted by the NGO Focus in Serbia.

### **Voluntary Agreements**

Voluntary agreements are yet to appear in the governance toolbox in SEE and EECCA. For example, the number of companies with ISO14001 certification remains low in both sub -regions. Although a notable growth took place in Azerbaijan, Belarus, Croatia, the Russian Federation, Serbia and Ukraine in the past few years this was largely driven by export markets (UNEP & EEA, 2007). Neither does corporate social responsibility appear to be on the business agenda as yet in EECCA and SEE.

### **Infrastructure Development and Investment**

There are huge opportunities for reducing energy use in EECCA and SEE through refurbishment of inefficient housing and of district heating networks. While there are many examples of such projects these represent only a very small part of the potential and have been initiated by foreign donors. It has been estimated that in Russia alone retrofitting of district heating networks and buildings would require over EUR 50 billion, more than 2.5 times the capital base of the EBRD the largest single investor in the region, so alternative sources of financing are required (UNEP & EEA, 2007). Alternative models for financing which so far has only been exploited widely in Ukraine are Energy Service Companies (ESCO).

The other areas with a large potential for improvement are investments in new technology in existing industries and in new public transport infrastructure. The need for sustainable transport investment is being increasingly recognised and government expenditure in Belarus, Albania, Croatia and Armenia has been growing in recent years (UNEP & EEA, 2007). An example is Croatia's development of inter-modal freight terminals to reverse the decline in freight transport on the country's railways (UNEP & EEA, 2007). In general, however, governments in SEE and EECCA have limited funds available for these kind of projects and, road-building projects tend to present a more attractive investment to foreign investors. Some sustainable transport projects have been funded by international donors, although on a small scale. An example includes the first cycle lane in Chisinau, Moldova (11km in length) opened in 2005 with funding from UNDP<sup>15</sup>.

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<sup>14</sup> <http://projects.wri.org/book/export/html/26>

<sup>15</sup> [http://fr1.estis.net/sites/esteastmd/default.asp?site=esteastmd&page\\_id=66BCD689-2F52-402B-9D7A-58636E7DEDCEB](http://fr1.estis.net/sites/esteastmd/default.asp?site=esteastmd&page_id=66BCD689-2F52-402B-9D7A-58636E7DEDCEB)

### 4.3 SCP Policy Implementation in North America

A range of different measures have been implemented in North America to foster more sustainable consumption and production, though most of these focus on production, fewer aimed at products, and very few aimed at changing consumption patterns.

#### ***Economic instruments***

A wide spectrum of economic instruments has been utilised to foster SCP across the region. In efforts to “close the loop” and further the practice of Extended Producer Responsibility (EPR) 11 U.S. states are already implementing Deposit-Refund Systems (DRS), with the States of Massachusetts and Connecticut taking actions to extend the systems to also include plastic bottles. Various provinces in Canada, such as Nova Scotia, have also adopted DRS. Similar measures in the field of sustainable waste management, for example taxing plastic bags, include the Mayor of New York’s recent proposal for a US\$ 0.06 levy and Toronto’s CAD\$ 0.05 charge. Attempts to put a price on carbon have included the Canadian Provinces of British Columbia and Quebec’s recently implemented carbon taxes and the U.S.’s proposed cap-and-trade system currently under consideration in the Senate. Additional recently adopted MBIs include, for instance, soft loans and subsidized index-based insurance schemes for disaster reduction in the agriculture sector under Canada’s *Growing Forward Policy Framework* (2008), and New York’s Green Building Tax Credits for developers that meet *Green Building Guidelines*.

However, there are notable areas where economic instruments are not been used to the same extent as in the EU. This is most clear in fuel taxes, and taxes on water and energy services which remain low by European standards.

#### ***Regulatory instruments and standards***

An increase in regulatory measures in numerous SCP-related sectors has been witnessed over the last 2 years throughout North America. Canada’s national *Regulatory Framework for Air Emissions* and the Province of British Columbia’s amendments for greening the building code are both designed to have an impact on reducing Canada’s greenhouse gas (GHG) emissions. The Vice President’s *Recovery through Retrofit Report of 2009* is also aiming to tackle GHG emissions from the built environment by outlining actions for surmounting barriers to developing a “self-sustaining home energy efficiency retrofit industry” through establishing standards for national retrofitting training and measuring home energy efficiency.

#### ***Voluntary agreements***

11 U.S. states and Canadian provinces have taken the lead on climate action and cleaner production by participating in the *Western Climate Initiative* (WCI), a partnership of independent jurisdictions working together to implement policies to reduce GHG through a regional cap-and-trade program, foster growth in new green technologies, and assist in developing a clean-energy economy. The *Federal Network for Sustainability* is a voluntary network of U.S. federal agencies that work towards advancing sustainability through numerous projects and programs in the Western U.S. Other voluntary initiatives include, for example, the *North American Sustainable Consumption Alliance*, the *International Coalition for Sustainable Consumption and Production* and the *Product Stewardship Partnerships*.

#### ***Information-based Instruments***

A number of recent initiatives and programmes are raising awareness in the region about the critical importance of greening our consumption and production patterns. Both the private and public sectors in the U.S. and Canada are striving to meet building standards/codes set forth by the *Leadership in Energy and Environmental Design* (LEED) rating system. The U.S. and Canadian *Green Building Councils* (USGBC and CaGBC) oversee the certification of green buildings and setting of rating systems and guidelines. In Canada, the *Extended Producer Responsibility Task Group* formed in 2007 is responsible, among other things, for informing the public about the amount of waste created by packaging. Within the U.S., the *National Sustainable Agriculture Information Service* offers advice and informational support for organic agriculture producers and the *Energy Star* labeling programme provides reliable information regarding the energy efficiency performance of appliances for consumers.

### ***Education and Training***

Recognizing the need to increase investments in human capital, particularly with regards to green skills and jobs, the U.S. Federal government has allocated US\$ 600 million towards green job training under the *ARRA*. The U.S. Department of Agriculture has been accelerating the move towards sustainable agriculture by conducting various trainings and providing online information on techniques and practices for organic farming, as well as water and energy efficiency. The *Public Entity EMS Resource Center*— an institution under the U.S. EPA— has also been established to provide a wide spectrum of tools and trainings to assist public entities manage their organization under an EMS. *“It all Adds Up to Clean Air”* is a Federal institution to assist regional, state and community’s endeavors to reduce air pollution.

### ***Infrastructure development and investment***

At the Canadian national level, the *Clean Energy Fund Program* has allocated CAD\$ 850 million for carbon capture and storage and renewable energy projects. Funding similar measures in the U.S., the *ARRA* allocates US\$ 80 billion for clean energy investments, US\$ 11 billion for the development of a smart grid with 40 million smart meters installed in private homes, US\$ 2 billion for developing the *“next generation of batteries”*, at least US\$ 1.2 billion for green water infrastructure and US\$ 6.3 billion for both state and local renewable energy and energy efficiency measures.

The U.S. and Canadian action towards increasing the number of new and existing LEED certified green buildings has progressed significantly in recent years. The U.S. Federal government is providing a total of US\$ 9 billion for improving the environmental sustainability of federal buildings and low-income housing. Correspondingly, the Canadian Green Business Council’s next generation of LEED, known as *GREEN UP: Canada’s Building Performance Program*, is creating tools for energy and environmental management for new and existing buildings. Within the transport sector, Canada’s *Federal Moving on Sustainable Transportation Program 2009 (MOST)* is funding 97 projects across the country, such as public transit and transportation demand management systems (TDM), complimenting the Province of Alberta’s recent introduction of its *Transportation Environmental Management System*. Recent U.S. Federal mobility investments for railway systems total US\$ 13 billion, which will be used for constructing new regional and high-speed rail networks across the country.

## 5 GAPS, OPPORTUNITIES AND RECOMMENDATIONS

The previous sections have outlined the state of policy and action in the various sub-regions of the UNECE region. Progress to date varies widely not only between sub-regions but also within sub-regions.

In general, the EU and EFTA region seems to have progressed furthest in the development of policy and action. With the 2006 revision of the European Sustainable Development Strategy, (ESDS) SCP has been placed high on the political agenda. The ESDS represents a key element in the overarching framework for future development alongside the economic and competitiveness goals of the Lisbon strategy and other social and environmental priorities in the ESDS. However, a number of EU countries still need to adopt SCP strategies across governmental sectors.

Integration of SCP into other thematic strategies, and assessment of proposed thematic strategies and policies against SCP goals has begun at both EU level and in some member states but there is still some way to go (Jackson and Michaelis, 2003). This process would be enhanced by the adoption of more concrete goals and SCP targets at the EU and national level (EEA 2008). The use of integrated policy appraisal at EU level could also prove an important tool towards the practical implementation of SCP at the national level.

So far in the EU, policy and action with respect to sustainable *consumption* has in most cases focused on products, through promoting the production of more sustainable products by business and encouraging consumers to purchase these products by through the use of labelling instruments. Few countries have taken the more critical step of encouraging more sustainable lifestyles (Berg, 2007).

Policies to foster system innovations, enhance the internalisation of externalities and shift from material-based consumption to immaterial consumption are of key importance in this context. Promoting, encouraging and enabling SCP more effectively will require well designed mixes of different complementary instruments such as regulation, economic instruments, information and awareness raising, voluntary agreements and network facilitation (ASCEE, 2008; Berg, 2007; Jackson and Michaelis, 2003; Sustainable Consumption Roundtable, 2006). Moreover, evidence shows that consumption-oriented policies can be effective only if they are differentiated according to the particularities of the different social segments in terms of values, attitudes and behaviour.

Hand in hand with the use of mixes of instruments is the need for governments to shift from a more traditional role of control (regulation and standards) to a wider role of governance or 'change management'. The concept of change management recognises that collective action and engagement by producers, consumers and civil society are key in achieving SCP, and that government must play a role in promoting and framing such collective action (ASCEE, 2008), Government can act as facilitator, collaborator, leading partner, and network host, to supplement (but not replace) its role as regulator.

In North America, SCP-relevant policies are beginning to be adopted and implemented in various thematic areas such as energy, housing, waste and agriculture but there is a lack of overall coordination of these initiatives (UNEP et al., 2008). SCP still needs to be recognised by federal and state/provincial government as a key cross-cutting policy area. Without this recognition and overall coordination only ad hoc isolated progress can be made, with a risk of conflict between thematic policies being advanced by different agencies. This may change soon in Canada with the adoption of a Sustainable Development Strategy at the federal level. Following this, integration of SCP into other policy areas will be needed. As in the EU, adoption of a set of concrete SCP goals and targets at Federal and State/Province level would considerably enhance this process.

The need for transition from government to governance, as described above, and the use of better developed policy mixes to engage, encourage and enable the various stakeholders towards SCP are equally as valid in North America as in the EU.

In the EECCA and SEE countries, SCP issues need to be given more prominent place in the political agenda. Only a handful of countries have adopted national sustainable development strategies and only some of these include SCP as a key priority.

The current situation in EECCA and much of SEE is of low consumption but inefficient industry and

energy services. This context determines a different set of immediate priorities compared to those for the majority of EU countries and for North America. In these sub-regions, policy packages can enable and encourage the refurbishment of industrial equipment and priorities for renovation of inefficient buildings and of district heating networks and other communal services. Such policies packages will result in environmental, social and economic gains. The packages have to be sustained by a mixture of instruments, improved frameworks for financing greater use of funding from Kyoto mechanisms, improved regulatory and legal frameworks for energy service companies and reforms in energy tariff structures to give industry and householders incentives for refurbishment. Tariff reforms must recognise the need to protect vulnerable groups from fuel poverty.

Further integration of SCP goals into energy, transport, agricultural policies is also needed. This will require much greater inter-sectoral and inter-ministerial cooperation than is currently the case in most of EECCA and SEE. Similarly, environmental strategies also need to shift from a focus on eco-system protection to include tackling the problems at source through the inclusion of goals for resource productivity, waste minimisation and cleaner production. Lack of institutional capacity to implement environmental policy and environmental regulation is a weakness in EECCA and SEE countries that needs to be remedied.

While unsustainable consumption patterns are currently restricted to a relatively small middle class in urban areas in most of EECCA and SEE, this group is growing rapidly. Effective sustainable consumption policies can release the potential for 'leapfrogging' to sustainable patterns without the need to follow the intermediate path of unsustainable consumption being experienced by OECD countries.

One of the greatest barriers to SCP within the UNECE region as a whole is a lack of knowledge of effective policy and policy implementation tools and packages. All sub-regions and countries have examples of effective initiatives and pilot projects for promoting various aspects of SCP but these experiences are not widely known. There is a huge opportunity for sharing and spreading information and experiences within and between countries and sub-regions through partnerships facilitation of platforms, networks, workshops and a host of other capacity building measures.

There is also a general need throughout the UNECE region for the development of indicators, benchmarks and alarm bells to enable continual review and improvement of SCP policy and implementation. SCP indicator sets exist in a number of EU countries and in parts of SEE but the practice needs to spread more widely.

A further major SCP gap throughout the UNECE area is in the integration of SCP goals into foreign policy, including development aid, processes for the removal of trade barriers but also encouragement for business to take responsibility for the sustainability of global supply chains. In general the international dimension of SCP remains weak in SCP strategies.

Connected to this is the need to develop the social dimension which is so far a neglected area of SCP. This work has begun in the research community but needs to be supported and eventually translated into concrete policy initiatives. There is also a need for further funding for research more generally in support of SCP (social, economic and technical-technological, including eco-innovations).

Finally, the importance of setting the example in the public sector should be further emphasized through regulation, targets and capacity building for Green Public Procurement.

Some suggested recommendations for future policies, instruments and initiatives for national and regional governments are given in the following table. These have been collated and developed from recommendations given in a range of other documents (ASCEE, 2008; European Commission, 2009; EEA, 2008; Jackson and Michaelis, 2003; Sustainable Consumption Roundtable, 2006; UNEP & EEA, 2007; UNEP, 2004; UNEP et al, 2008).

Table 1. Recommendations for future policy, instruments and initiatives for national and regional governments

<b>High Level - Strategy, policy integration, goals, targets and indicators</b>	
<ul style="list-style-type: none"> <li>Anchor sustainable development and SCP at a high political level in national governance for example through appointment of a designated minister with a horizontal cross-cutting mandate</li> </ul>	UNECE region
<ul style="list-style-type: none"> <li>Adopt at national government level, but with broad stakeholder involvement, an overarching SCP strategy either stand-alone or as inclusion in a sustainable development strategy</li> </ul>	Particular gaps are in NA and some EU, EECCA and SEE countries.
<ul style="list-style-type: none"> <li>Adopt concrete targets and timetables, indicators for monitoring progress against SCP, and processes for reaction to negative trends</li> </ul>	Only a few EU countries have adopted the full package to date.
<ul style="list-style-type: none"> <li>Integrate SCP priorities and targets into key sectoral policies including economic development policy, energy policy, agricultural, food and fisheries policy, transport policy, consumer policy,</li> </ul>	UNECE region– process has begun in EU but still needs more
<ul style="list-style-type: none"> <li>Related to above – assessment of proposed policy in key thematic areas against SCP goals and targets</li> </ul>	UNECE region- Begun at EU level and in some EU countries
<ul style="list-style-type: none"> <li>Engage in a transition from government to governance through taking multiple roles in promoting SCP including acting as observers, activators, facilitators of networks, promoters of social innovation, along with more traditional regulatory roles</li> </ul>	UNECE region
<b>SCP Policy Scope</b>	
<ul style="list-style-type: none"> <li>Adopt an <i>integrated</i> policy package covering the main elements of life-cycle in the economy– resource use, cleaner production, products, consumption, disposal, reuse and recycling - in line with SCP goals and targets</li> </ul>	UNECE region- Begun at EU level and in some EU countries. No
<ul style="list-style-type: none"> <li>Adopt policies and instruments aimed at reducing environmental pressures associated with the demand for food and drink, mobility and housing</li> </ul>	Some policy exists in most countries but gaps need to be filled
<ul style="list-style-type: none"> <li>Move beyond policy on production and sustainable products to include policies, goals and instruments for encouraging more sustainable lifestyles</li> </ul>	EU countries and North America
<ul style="list-style-type: none"> <li>Develop a sustainable consumption policy and instruments which activate relevant stakeholders in business and civil society</li> </ul>	UNECE region– but immediate need in North America and in EU countries
<ul style="list-style-type: none"> <li>Engage in partnerships with civil society and the research community to identify and form consensus on how to incorporate the social dimension into SCP</li> </ul>	UNECE region
<b>Policy Instruments</b>	
<ul style="list-style-type: none"> <li>Make increasing use of economic instruments to internalise economic and social externalities into the price of resources, goods and services, but include mechanisms to protect the poor and vulnerable groups</li> </ul>	UNECE region
<ul style="list-style-type: none"> <li>Remove perverse subsidies which conflict directly with SCP goals</li> </ul>	UNECE region
<ul style="list-style-type: none"> <li>Develop judicious and intelligent mixes of instruments for implementing SCP policy including use of regulation, economic instruments, voluntary agreements, information and education</li> </ul>	UNECE region
<ul style="list-style-type: none"> <li>Development of policy, instruments and goals to enable, promote</li> </ul>	UNECE region

and establish Green Public Procurement	
<b>Engaging Consumers</b>	
<ul style="list-style-type: none"> <li>Raise awareness of the environmental consequences of different consumer choices and the connections between consumption and production, both through inclusion in formal education and through social marketing</li> </ul>	UNECE region– but immediate need in North America and in EU countries
<ul style="list-style-type: none"> <li>Develop policy mixes of instruments for promoting sustainable consumption including use of regulation, economic instruments, information and education and support of grass roots social innovation</li> </ul>	UNECE region
<b>SCP in Business</b>	
<ul style="list-style-type: none"> <li>Strengthen CSR activities including encouraging responsibility for global supply chains, through setting use of economic incentives, improved transparency and accountability</li> </ul>	UNECE region
<ul style="list-style-type: none"> <li>Support the involvement of SMEs in SCP</li> </ul>	North America, EU countries and SEE
<ul style="list-style-type: none"> <li>Promote business marketing strategies in support of sustainable lifestyles through specific sector dialogues between business, government and stakeholders</li> </ul>	North America and EU countries
<b>Sustainable financing</b>	
<ul style="list-style-type: none"> <li>Involve the financial sector in the SCP agenda so that financial institutions become a driver for SCP through creation of funds for eco- and social innovation, seeding of low carbon technologies etc.</li> </ul>	UNECE region
<ul style="list-style-type: none"> <li>Identify and enable a range of sources for financing the refurbishment of inefficient buildings and district heating networks</li> </ul>	EECCA and SEE
<b>Global Dimension</b>	
<ul style="list-style-type: none"> <li>Support developing and transition countries in the development of SCP strategies which are tailored to their needs and challenges</li> </ul>	North America and EU countries
<ul style="list-style-type: none"> <li>Ensure that development aid programs are aligned with SCP goals</li> </ul>	North America and EU countries
<ul style="list-style-type: none"> <li>Cooperate with transition countries in investments in sustainable infrastructure in waste, energy, transport and housing through public-private partnerships and other means</li> </ul>	North America and EU countries
<b>Institutional Capacity</b>	
<ul style="list-style-type: none"> <li>Ensure that institutions set up to implement and administer SCP related policy and programmes have sufficient human and financial resources, knowledge and clear mandates to allow effective administration</li> </ul>	UNECE region but particularly EECCA and SEE
<ul style="list-style-type: none"> <li>Create partnerships, platforms and forums for sharing and spreading information and experiences on effective SCP policy measures within and between countries and regions</li> </ul>	UNECE region but with EU taking lead role

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