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Progress Report on the European Union Sustainable Development Strategy 2007

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1. INTRODUCTION

This Staff Working Document sets out a detailed analysis of the progress made towards the objectives set in the challenges of the European Union Sustainable Development Strategy 2006 (EU SDS). It provides technical background information to the first progress report on the EU SDS. The EU SDS is an ambitious long term strategy that grew out of the broader global Rio process. The first EU strategy was agreed in Göteborg 2001 and reviewed by the Commission in 2005¹. The 2006 strategy² addresses unsustainable trends within 7 key policy areas and sets objectives and targets for the EU to achieve sustainability, depending on the policy area, within the next 10, 20 or 50 plus years.

For a strategy that aims to achieve results in the long-term, it is relatively soon to take stock after one year. However, Eurostat³ has set year 2000 as a baseline against which to measure progress, which means that the 2007 monitoring report does give a first snapshot of the state of play for a broad range of policies, although these strictly speaking have different timelines. The picture is one of relatively modest progress on the ground whilst policy development in many cases is more encouraging thus promising more significant impact on the ground in years to come. Both the EU and Member States are increasingly putting in place the policies needed to address the unsustainable trends particularly on climate change and clean energy, the first theme of this strategy. There is also evidence of increasing convergence between the different actors and for many of the challenges the EU, Member States, citizen groups, NGOs and business are focusing on the same priorities and objectives. This first progress report is an opportunity to take stock, adjust the course and speed, where needed, and confirm and refocus on the key objectives and targets of the strategy.

Sustainable Development sets out a vision for how society should evolve. The EU's vision is set out in the Sustainable Development Principles adopted by the European Council in 2005. That is – of a society that protects and improves the quality of the environment in which we live; a society that promotes equity and social cohesion in Europe in solidarity with the rest of the world and works for democracy, peace, security and freedom; and a society, that strives towards economic prosperity based on a an innovative, competitive and eco-efficient economy. The two strategies - Sustainable Development and Lisbon - complement each other and work together to create a sustainable European society. Increasingly, and particularly with the renewed focus on climate change and clean energy, there are real synergies between the two strategies that can be further explored.

The first Progress report marks the start of the new Governance process set out in the Council conclusions of June 2006. The analysis of progress on the EU SDS is, as requested by the Council, based on different sources including: the 2007 Eurostat Monitoring Report based on the Sustainable Development Indicators (SDIs); the Member State Progress reports on the implementation of the EU SDS; internal Commission analysis and an independent Consultancy report analysing the progress made on the EU SDS. This information provides the basis for the Communication and the Staff Working Document. Attached to this Staff

¹ COM(2005) 658 'On the review of the Sustainable Development Strategy -A platform for action' December 2005

² European Council Conclusions : Review of the EU Sustainable Development Strategy (EU SDS), June 2006

³ Eurostat 2007 SDI Monitoring Report

Working Document is also an annex on the reviewed SDI list in reference to Council Conclusions of June 2006.

2. CLIMATE CHANGE AND CLEAN ENERGY

2.1. Objectives

Overall Objective: To limit climate change and its costs and negative effects to society and the environment.

- Kyoto Protocol commitments of the EU-15 and most EU-25 to targets for reducing greenhouse gas (GHG) emissions by 2008 – 2012, whereby the EU-15 target is for an 8% reduction in emissions compared to 1990 levels. Aiming for a global surface average temperature not to rise by more than 2°C compared to the pre-industrial level.
- Energy policy should be consistent with the objectives of security of supply, competitiveness and environmental sustainability, in the spirit of the Energy Policy for Europe launched in March 2006 by the European Council. Energy policy is crucial when tackling the challenge of climate change.
- Adaptation to, and mitigation of, climate change should be integrated in all relevant European policies.
- By 2010 12% of energy consumption, on average, and 21% of electricity consumption, as a common but differentiated target, should be met by renewable sources, considering raising their share to 15% by 2015.
- By 2010 5.75% of transport fuel should consist of biofuels, as an indicative target, (Directive 2003/30/EC), considering raising their proportion to 8% by 2015.
- Reaching an overall saving of 9% of final energy consumption over 9 years until 2017 as indicated by the Energy End-use Efficiency and Energy Services Directive.

Refer to the 2006 Strategy for specific actions.

2.2. State of Play

Eurostat reports that in 2005, EU-15 emissions of GHG had decreased by 2% compared to their Kyoto base year value. This is still far from the target of reducing emissions by 8% by 2008-2012, and the emissions trend has been moving away from the target path since 2000. However, projections indicate that it is still possible to reach the Kyoto target provided that Member States accelerate implementation of all planned policies and measures including the use of carbon sinks and so-called Kyoto mechanisms. Of the twelve remaining countries outside the EU-15 burden sharing arrangement, nine have already reduced their emissions significantly below their target levels.

Progress towards the target that the global surface average temperature not rise by more than 2°C compared to the pre-industrial level cannot be assessed directly, by the existing indicator, which only monitors change since 1850. However, the overall warming from the average of the first 50-year period 1850 to 1899 to the one of 2001-2005 is $0.76^{\circ}\text{C} \pm 0.19^{\circ}\text{C}$. In addition, there has been a fairly linear upward trend in temperatures since the 1970s.

All the indicators on energy consumption show that the EU is off track to reach the targets set in the strategy. Consumption of renewable energy sources as a whole for the EU-27 increased at an average rate of 3.2% per year during the 1990s, growing to 4.1% between 2000 and 2005. In spite of this increase, because of the relatively high growth rate of gross inland consumption, the overall share of renewables only reached a level of 6.6% in 2005. The average annual growth of 0.18 percentage points since 2000 is insufficient to reach the 2010 target of 12%.

The share of renewables in electricity consumption reached 14% in 2005, having gained a mere 1.6 percentage points since 1990. Achieving the 2010 target of 21% would require growth of 1.4 percentage points per year, when the growth rate since 2000 has been 0.04 percentage points. In 2005, the share of biofuels represented only 1.08% for the EU-27, which is far from the 5.75% 2010 target. Nevertheless, the growth rate is rising.

The quantitative objective set in the Energy End-use Efficiency and Energy Services Directive, and recalled in the EU SDS, of reaching an overall saving of 9% of final energy consumption, cannot be measured at EU level through Gross Inland Energy Consumption, as savings are defined as measures and/or estimates of consumption before and after implementation of one or more energy efficiency improvement measures. Under the Directive, Member States are to report their estimates of energy savings according to a harmonised method.

Other more qualitative objectives, for example the objective of an energy policy consistent with the objectives of security of supply, competitiveness and environmental sustainability, or even objectives referring to new areas which cannot be adequately measured with current information, such as adaptation to climate change, are not addressed by the current set of indicators.

2.3. Key EU Policies

Objective 1 - Kyoto Protocol commitments of the EU-15 and most EU-25 to targets for reducing greenhouse gas emissions by 2008 – 2012, whereby the EU-15 target is for an 8% reduction in emissions compared to 1990 levels. Aiming for a global surface average temperature not to rise by more than 2°C compared to the pre-industrial level.

Objective 2 - Energy policy should be consistent with the objectives of security of supply, competitiveness and environmental sustainability, in the spirit of the Energy Policy for Europe launched in March 2006 by the European Council. Energy policy is crucial when tackling the challenge of climate change.

International Cooperation on Climate Change

Over the past years, the EU has considerably strengthened its international leadership on climate change. This leadership is based on three pillars: ensuring the EU's credibility through meeting its 8% emission reduction target under the Kyoto Protocol; strengthened cooperation with third countries on climate change; and new proposals to reinforce global action on climate change in the context of the UN climate negotiations.

The Commission outlined key elements of its international climate change strategy in the **Communication “Winning the Battle against Global Climate Change”** in February 2005⁴. Following this Communication, the EU has significantly stepped up its cooperation with third countries through actions such as regular high-level policy dialogues, strengthened cooperation in the area of science and technology, cooperation on adaptation to the impacts of climate change, and the implementation of the **Kyoto Protocol's Joint Implementation (JI)** and **Clean Development Mechanism (CDM)**.

Examples of these efforts include the climate change partnerships that were agreed with India and China in 2005. Similar partnerships were agreed with other countries and regions and complemented by efforts to increase third country participation in the 6th and 7th Community Framework Programme for research. The EU's Green Diplomacy Network, was set up in 2003 to improve exchange of information between diplomats dealing with environment files. Recently the network has played an important role in coordinating positions in advance of major international climate meetings. It is currently building up exchange of information and is consulting environment specialists of the EU delegations, embassies and missions to explore what joint activities may be possible in third countries. On the basis of the Johannesburg Renewable Energy Coalition (JREC) and the EU Energy Initiative the Commission launched the EU Energy Facility and the Global Energy Efficiency and Renewable Energy Fund (GEEREF). The GEEREF is designed to boost the Community's capability to support the implementation of partner countries' sustainable development and poverty eradication programmes and accelerate the transfer, development and deployment of environmentally sound technologies. Once operational the fund is predicted to generate additional capital of between EUR 300 million and EUR 1 billion.

The EU significantly strengthened its leadership with the new climate change and energy strategy, agreed at the European Council in March 2007. It sets out the building blocks for an agreement on further international action on climate change, to enter into force in 2013, when the first commitment period of the Kyoto Protocol ends. The strategy is largely based on the Commission's Communication **“Limiting Global Climate Change to 2 degrees Celsius: The way ahead for 2020 and beyond”**⁵. It establishes a new Integrated Climate Change and Energy Policy to combat climate change and to boost the EU's energy security and competitiveness, in line with the renewed EU SDS strategy. Key features include:

- 20% reduction of GHG emissions by 2020 below 1990 levels
- 30% reduction of GHG emissions by 2020 below 1990 levels if other developed countries join under an international agreement
- Improving energy efficiency by 20% by 2020
- Raising the share of renewable energy in consumption to 20% by 2020
- Increasing the level of biofuels in transport (petrol and diesel) fuel consumption to 10% by 2020.

⁴ COM (2005)35 of 9 February 2005.

⁵ COM (2007)2 of 10 January 2007.

The legislative proposals for implementation of the package are expected for the end of 2007. They include EU-wide burden sharing; Renewables targets burden sharing, a **Carbon Capture Storage Directive**, Carbon Dioxide (CO₂) from cars and review of the EU Emissions Trading Directive.

The EU emissions Trading Scheme is the EU's flagship in the combat against climate change. This new carbon market is designed to help EU countries comply with the Kyoto Protocol targets and effectively reduce emissions. The first trading period of 2005-2007 has been a trial phase where "learning-by-doing" has been of great benefit to all parties involved. The volume of allowances traded has grown steadily and the market is gradually maturing. One of the important lessons learned was the significance of getting the allocation of CO₂ quotas right. For the next phase, the Commission will impose strict standards and a common methodology to ensure the necessary scarcity for appropriate pricing. The Commission is currently carrying out a revision for the 3rd trading period. This review is designed to streamline the current scheme, to make it more effective and efficient and to sort out main shortcomings and distortions experienced so far. Some of the ideas considered are extended scope, more harmonisation and increased predictability as well as linking the EU ETS with emissions trading systems in non-EU countries as set out in the Communication "Building a Global Carbon Market". The review looks at expanding the EU ETS to other sectors and other GHGs beside CO₂. This could cover nitrous oxide (N₂O) from ammonia production and methane from coalmines. In the light of divergent interpretations by Member States, the review will also consider ways to give greater clarity on which types of combustion installations should be covered.

Planned **ERDF and Cohesion Fund** support in 2007-2013 programmes of around €9 billion for measures such as renewable energy, efficiency and management of energy, air quality and other measures of mitigation and adaptation to climate change.

The technology of carbon capture and storage has the potential to contribute both to the EU's climate goals and to its security of energy supply. All indications are that we cannot make the significant global reductions in GHG emissions by 2050 needed to meet the necessary climate change objectives using energy efficiency and renewables alone. In its Communication and supporting documents "Limiting Climate Change to 2°C" of January 2007, it is proposed that carbon capture and storage (CCS) could contribute around 14% of all reductions needed by 2030. Also some 60% of emissions from the power sector could be captured by 2050, compared with none today. The forecasts suggest that after an initial deployment in developed countries, rapid uptake in developing countries will follow. By 2050, more than 90% of all coal-fired electricity generation would be from plants equipped with CCS. The Commission is working to create the regulatory framework for CCS for 2007. This would include: the main framework for managing the risks from capture, transport and storage; removing barriers in existing legislation, in particular in the area of water and waste as well as managing liability issues for leakage from the storage site.

Regulation (EC) No 842/2006 on certain **fluorinated greenhouse gases** was adopted on the 17 May 2006. In the absence of this regulation, fluorinated GHG emissions in EU-15 were to increase by around 50% by 2010 compared to 1995 (from 65 to 98 million tonnes of CO₂ equivalent). The Regulation aims to control the emissions of so called F-gases which are potent GHG controlled by the Kyoto Protocol. Hence it helps the EU to meet its climate change objectives. The Regulation includes, inter alia, provisions on containment, recovery and labelling of F-gases in a number of applications (eg refrigeration, air conditioning and heat pumps) and, for a limited number of products and equipment containing these gases, it

bans their use and/or placing on the market. The Commission is currently preparing the implementing provisions, including labelling, reporting, and minimum qualifications of personnel dealing with F-gas applications.

In addition, a new Directive (2006/40/EC) was adopted which provides for the phase-out of **mobile air conditioning systems** using fluorinated gases with a global warming potential above 150 by 1 January 2011 for new models and from 1 January 2017 for all new cars. The combined emission reductions that can be achieved by 2010 from the Regulation and Directive on mobile air conditioning are estimated to amount to 21 million tonnes of CO₂ equivalent. By 2020, once measures are fully implemented, these savings are expected to reach 40 – 50 million tons of CO₂ equivalents per annum.

Objective 3 - Adaptation to and Mitigation of Climate Change should be Integrated in all Relevant European Policies.

With climate change already happening, societies worldwide face the parallel challenge of having to mitigate and adapt to its adverse impacts as a certain degree of climate change is inevitable throughout this century and beyond, even if global mitigation efforts over the next decades prove successful. Adaptation action has therefore become an unavoidable and indispensable complement to reducing GHG emissions. Once certain temperature thresholds are exceeded, certain climate impacts (e.g. major displacement of populations) are expected to become severe and irreversible.

The European Union is taking on the challenge of adaptation, working in partnership with its Member States and globally with partner countries. A European approach is necessary to ensure proper co-ordination and the efficiency of policies that address the impacts of climate change. Adaptation actions must be consistent with GHG reduction action and vice versa.

In June 2007, the Commission adopted a Green Paper on Adaptation⁶ that includes proposals for strengthening the EU's external actions with respect to adaptation to climate change. Following this, the Commission has recently proposed a Global Climate Change Alliance (GCCA)⁷ that will provide a platform for dialogue and exchange among the EU and poor developing countries most vulnerable to climate change, in particular the Least Developed Countries and Small Island Developing States, on practical approaches to realising the integration of development strategies and climate change. In addition, to these initiatives, the 2008 Spring European Council will address the pressing issue of the consequences of the increasing impacts of climate change for international security. The discussions will be based on a report currently being prepared by the Commission and the High Level Representative.

Objective 4 - By 2010 12% of energy consumption, on average, and 21% of electricity consumption, as a common but differentiated target, should be met by renewable sources, considering raising their share to 15% by 2015.

Objective 5 - By 2010 5, 75% of transport fuel should consist of biofuels, as an indicative target, (Directive 2003/30/EC), considering raising their proportion to 8% by 2015 and

⁶ COM (2007)354 of 29 June 2007.

⁷ Commission Communication "Building a Global Climate Change Alliance between the European Union and poor developing countries most vulnerable to climate change", COM(2007) 540 of 18 September 2007.

Objective 6 - Reaching an overall saving of 9% of final energy consumption over 9 years until 2017 as indicated by the Energy End-use Efficiency and Energy Services Directive.

In terms of energy, much of the basic legislation is in place. For renewables, Directives 2003/30/EC and 2001/77/EC require Member States to attain national targets in the share of renewable electricity and bio fuel consumption. The European Commission adopted a **Renewable Energy Road Map**⁸ on 10 January 2007, setting out a long-term vision for renewable energy sources in the EU and proposing that the EU establish a mandatory (legally binding) target of 20% for renewable energy's share of energy consumption in the EU by 2020. In addition, a binding minimum target of 10% has been endorsed for the share of biofuels in the overall EU transport and diesel consumption by 2020.

On energy efficiency, Member States are required by Directive 2006/32/EC to develop **National Energy Efficiency Action Plans** with a strategy to save 9% by 2016. The national plans were to be submitted by June 2007 and are currently being analysed.

The Action Plan for Energy Efficiency identified that the largest cost-effective savings potential lies in the residential (households) and commercial buildings sector (tertiary sector), where the full potential is now estimated to be around 27% and 30% of energy use, respectively. For manufacturing industry, the overall potential is estimated to be around 25% and for transport, a similar full savings potential of 26% is estimated. Realising the 20% potential 2020, equivalent to some 390Mtoe (million tonnes oil equivalent), will result in large energy and environmental benefits. CO₂ emissions should be reduced by 780 Mt CO₂ with respect to the baseline scenario, more than twice the EU reductions needed under the Kyoto Protocol by 2012. Additional investment expenditure in more efficient and innovative technologies will be more than compensated by the more than €100 billions annual fuel savings.

2.4. Member State Actions

Objective 1 - The Kyoto Commitments and

Objective 2 - Sustainable Energy Policy

Climate change and energy are widely covered in Member State reports and it is clear that EU policy in this field steers activities in Member States. This demonstrates that EU policy can provide an effective framework for action in a relatively short span of time. Almost all Member States have now adopted national climate change strategies, either as a separate strategy or as a part of energy policy packages.

However, only Sweden, Germany and the United Kingdom of the EU-15 are currently projected to be on track to achieve their Kyoto targets by 2010 using existing domestic policies and measures. In addition, 10 Member States are projected to reach their targets using additional domestic policies and measures already in planning including the effect of the EU ETS, Kyoto mechanisms and carbon sinks. Three MSs (AT, DK⁹, and ES¹⁰) project that they

⁸ COM(2006)848

⁹ According to Denmark's NAP for the period 2008-12 and additional information submitted to the Commission, Denmark will reach its target by initiating new national climate initiatives and through state purchases of JI/CDM credits

will not reach their targets even when accounting for additional measures, Kyoto mechanisms, sinks, and the effect of the EU ETS. These Member States will have to intensify the implementation of existing policies and measures, to identify further emission reduction policies and measures as well as increase the use of the Kyoto mechanisms. Spain states in the progress report that even with adoption of their Urgent Measures Plan supplementing the national climate change strategy, additional measures would be necessary to reduce emissions by over 15 million tonnes of CO₂ equivalent per annum. Portugal's CO₂ reduction deficit of approximately 7.4 million tonnes of CO₂ eg/annum will be covered by additional domestic measures, government investment of the Portuguese Carbon Fund and by the implementation of Clean Development Mechanism projects.

In line with the Emissions Trading Directive, 23 National allocation plans were adopted in 2007 allocating 1903.43 Mt annually instead of the initially proposed 2101.64. The Commission insisted on substantial cuts in allocations and decisions ranged from cuts in the order of 65.5% (eg LV) to 0.3% (eg ES). Only three Member States (eg UK, SI and FR) had their proposed caps approved.

Further initiatives worth mentioning include: In 2006, the UK government established a Climate Change Office for analysis and policy development; the Swedish government appointed a Scientific Council on climate issues. Almost all Member States adopted national Climate Change Strategies, either as a separate strategy or as a part of energy policy package. For instance, the Dutch policy package "Clean and Efficient" aim at an energy efficiency improvement of 2% per year, a share of renewable energy of 20% by 2020 and a reduction of 30% by 2020 (as compared with 1990). Ireland recently adopted a National Climate Change Strategy 2007-2012. Austria adjusted its National Climate Strategy.

Very few Member States, however, address the issue of energy policy and its consistency with security of supply. Equally limited reporting is apparent on Energy policy and its consistency with competitiveness policies. Certain countries report on restructuring of the energy sector, including liberalisation of electricity and gas markets as well as expansion of infrastructure such as transmission systems. Apart from the GHG emissions, addressed by all countries under objective 1, there are other elements of environmental sustainability such as airborne emissions of SO₂, NO_x and Volatile Organic Compounds (VOCs), issues related to nuclear energy and environmental sustainability in connection with the production of biomass and biofuels. Few countries (eg CZ, EE, and ES) refer to the linkage to air quality as a priority issue, whereas others do not address the issues at all.

Objective 3 – Adaptation to Climate Change

Adaptation policies are an integral part of climate change strategies in several countries (eg SE, FR, ES, and HU) even so, adaptation to climate change is largely ignored in most Member State reports and where it is mentioned there are often no details on measures and progress. The Member States that do refer to adaptation often stay at a very general level, indicating that strategies are in place but give no details on measures and progress. For example, in Denmark the Government will in 2007 submit a proposal for a Danish Climate

¹⁰ Spain established in the NAP2, a compliance strategy that included the identification of additional reduction measures to fill the gap. A part of these measures is included in a Plan of Urgent Measures against Climate Change which will be implemented during 2007 and will allow Spain to reach its Kyoto target.

adjustment strategy. In Finland the Climate Change Adaptation Research Programme has been launched as part of the National Strategy for Adaptation to Climate Change. No details are given. In France a national strategy on adaptation to the consequences of climate change was drawn up in June 2006. Some Member States (eg ES) provide more detailed reporting on measures taken at regional and local level reflecting the priority given to adaptation. The adaptation plan was approved in July 2006. It aims to generate an ongoing flow of knowledge building capacities for applying that knowledge in decision making. This includes activities such as generation of regional climate scenarios and assessment of the impact of climate change on water resources, biodiversity and coastal regions. Importantly, work is planned for assessing impacts in certain economic sectors of relevance – tourism, agriculture, health and forestry.

Objective 4 - Renewables

Several Member States have set national targets for renewables (eg FR, NL, ES, AU) and in some cases the level of ambition exceeds the ambition of the EU climate change and energy package to raise the share of renewable energy to 20% by 2020. ie Austria set the goal to raise the share of renewable energies to 45% by 2020. Several EU countries also introduced incentives to stimulate production of renewable energies. They include investment aid, tax reductions, obligation on energy producers to produce part of energy from renewable sources and feed-in tariff to buy green electricity above market price.

In terms of share of the renewable electricity the reports show that some Member States (eg DK, D, ES, IR, HU, NL and LUX) are on track to meet the targets they have accepted under the Directive and that it is mainly due to the efforts of these few countries that the EU possibly could achieve a share of 19% of renewable electricity by 2010. The reports confirm the vast differences in the role that renewable energy is playing in different Member State countries, reflecting different national targets and circumstances.

Objective 5 – Biofuels

Only a few countries are set to meet the target for biofuels by 2010. However, Member States are putting in place effective policies to this end including tax exemptions measures (at least 8 EU countries); 13 Member States have received state aid approval for new biofuels tax exemptions and a number of countries integrate support for biofuels in rural development programmes. France and Austria established an ambitious biofuels plan, with goals of 5.75% by 2008 (two years earlier than the EU target), with 7% and 10% respectively by 2010, and 10% and 20% by 2015. Germany mandated biofuels blending for the first time, requiring 4.4% bio-diesel blending and 2% ethanol blending starting in 2007, increasing bio diesel blending to 5.75% by 2010. Member States have also been enacting biofuels tax exemptions. Such exemptions now exist in at least 8 EU countries, most of these enacted during 2005–06, (FR, DE, EL, IE, IT, ES, SE, UK). Ireland announced €265 million in extra subsidies to support renewables over the next five years, including €200 million in excise tax relief for biofuels. The Biofuels progress report shows that since 2005, 13 Member States have received state aid approval for new biofuels tax exemptions and at least 8 Member States have brought biofuels obligations into force or announced plans to do so. 19 Member States have already set targets for 2010. A number of countries integrate support for biofuels in rural development programmes and provide support in addition to the energy crop support under the EU common agricultural policy. Sustainability of the production of biomass for biofuels is addressed most directly by the United Kingdom and the Netherlands, otherwise little attention is paid to it in the reports. It is crucial to develop sustainability criteria for biofuel production and use.

Objective 6 – Energy Efficiency

Member States were asked to submit their energy efficiency plans by 30 June 2007. To date, 17 Member States have done so and a final analysis of these plans is still underway.

Many Member States have made significant efforts to implement the Energy Performance of Buildings Directive¹¹ which have resulted in improving the energy performance requirements, by an average of 25% for all Member States, on new buildings with additional energy performance improvements for older buildings when these buildings undergo major renovation¹². Existing buildings are covered by the implementation of the Buildings Directive, which includes energy performance requirements on components when these buildings undergo major renovation. The most advanced Member States on the implementation of the Buildings Directive are Denmark, Germany, Ireland, Portugal and the Netherlands. However 21 infringement cases are presently ongoing for not having implemented (completely) the Buildings Directive. Inter alia Denmark, Finland, Sweden, Germany, the Netherlands and Austria already had national regulations which implement core parts of the Buildings Directive (eg by strict minimum energy performance requirements on the buildings shell and mandatory inspection of boilers) before the Directive was adopted in December 2002. Some Member States offer subsidies for new buildings or the refurbishment of existing buildings where the final energy performance is better than regulatory required. Germany has, with its promotion program of the non-private KfW bank, established the most advanced financing approach in this sector which has been copied by international non-private banks like EBRD, EIB and CIB. Due to the complexity of the buildings stock and the difficulties to meter (the

¹¹ 2002/92/EC

¹² 2002/92/EC

reduction of) the energy consumption of the whole buildings sector, no overall energy saving targets are available at present. This lack of information could be improved by the above mentioned national energy efficiency action plans as of July 2007. Inter alia the Netherlands, the United Kingdom, Portugal, Germany, Belgium and Denmark started or announced information campaigns (on improvement measures and on economic behaviour) to raise the awareness of citizens on energy aspects in the buildings sector.

2.5. Conclusions

Both the EU and Member States have made good progress on developing the policy framework for the theme. The EU-15 managed to reduce their GHG emissions in 2005 by 0.7% compared to base year bringing overall emissions down to 2%. This is a step in the right direction although significant efforts still have to be made to reach the Kyoto target of reducing emissions by 8% by 2008-2012 compared to 1990. The share of renewables only reached a level of 6.6% in 2005. The average annual growth of 0.18 percentage points since 2000 is insufficient to reach the 2010 target of 12%. The share of renewables in electricity consumption reached 14% in 2005, having gained a mere 1.6 percentage points since 1990. Achieving the 2010 target of 21% would require growth of 1.4 percentage points per year which is much higher than the present growth rate.

There have been significant policy developments at EU level and it is apparent that EU policy in this field is steering activities in Member States on this theme. In March 2007, EU Heads of State agreed on a comprehensive package to establish a new Integrated Climate Change and Energy policy with emission reductions of at least 20% by 2020, and the further promise of a 30% reduction commitment by 2020. If an adequate post 2012 multilateral framework is agreed to, the European Community is set to take bold legislative steps within the next two years inducing the necessary structural changes in their economies. The EU emissions Trading Scheme continues to be the EU's flagship in the combat against climate change and in the review of the scheme expansion of EU ETS to other sectors and GHG beside CO₂ (CO₂ is considered). In the Communication "Limiting Climate Change to 2°C" of January 2007, the Commission proposes that carbon capture and storage (CCS) could contribute by around 14% of all reductions needed by 2030; In June 2007, the Commission launched a Green Paper on Adaptation to Climate Change.

For energy policy, much of the basic legislation is in place. Directives 2003/30/EC and 2001/77/EC require Member States to attain national targets in the share of renewable electricity and biofuels consumption. On energy efficiency, Member States are required by Directive 2006/32/EC to develop national energy efficiency action plans.

Overall, Member States give high importance to climate change and clean energy in their reporting, and there is considerable evidence of a large number of diverse initiatives being taken. Current projections indicate that Member States will be accelerating the implementation of their planned policies and measures. In this respect, a significant step has been made with the recent decisions on the National Allocation Plans (NAP) under the EU Emissions Trading Scheme (ETS) for the period 2008-2012.

The coverage and level of detail in reporting varies significantly, making it difficult to assess progress on the basis of these reports alone. Most attention is paid to compliance with Kyoto, renewable energy, biofuels and energy efficiency. However, much less attention is paid to post-2012 emission reductions, the consistency between energy policy and competitiveness, security and broader environmental targets. Little attention is paid to sustainability criteria for

biofuels. Finally, reporting on adaptation to climate change is scarce, while integration of mitigation measures is addressed by some, but rather randomly. It remains clear that to reach its Kyoto and energy targets, Member States will have to intensify their efforts to implement all additional measures planned especially in the areas of road transport and use of renewables.

3. SUSTAINABLE TRANSPORT

3.1. Objectives

Overall Objective: To ensure that our transport systems meet society's economic, social and environmental needs whilst minimising their undesirable impacts on the economy, society and the environment.

- Decoupling economic growth and the demand for transport with the aim of reducing environmental impacts.
- Achieving sustainable levels of transport energy use and reducing transport GHG emissions.
- Reducing pollutant emissions from transport to levels that minimise effects on human health and/or the environment.
- Achieving a balanced shift towards environment friendly transport modes to bring about a sustainable transport and mobility system.
- Reducing transport noise both at source and through mitigation measures to ensure overall exposure levels minimise impacts on health.
- Modernising the EU framework for public passenger transport services to encourage better efficiency and performance by 2010.
- In line with the EU strategy on CO₂ emissions from light duty vehicles, the average new car fleet should achieve CO₂ emissions of 140g/km (2008/09) and 120g/km (2012).
- Halving road transport deaths by 2010 compared to 2000.

Refer to the 2006 Strategy for specific actions.

3.2. State of Play

Energy consumption by transport, used as a proxy for transport demand, grew at an average rate of 1.3% per year between 2000 and 2005 in the EU-27, only slightly less than the 1.7% average for GDP over the same period, showing no real signs of decoupling, and raising concerns about the related objective of achieving sustainable levels of transport energy. Transport GHG emissions are still growing, with an average annual growth rate of 1.2% between 2000 and 2005 in the EU-27. In 2004, domestic transport was responsible for 21% of total GHG emissions in EU-15. It grew by 26% between 1990 and 2004 whereas emissions from most other sectors decreased during the same period.

Transport accounts for 30% of total energy consumption in the EU, with 98% dependency on oil. It represents 21% of the GHG emissions in the EU. These emissions have gone up by around 23% since 1990. Urban transport accounts for 40% of CO₂ emissions of road

transport. Road transport remains the biggest source of transport emissions. In 2004, it emitted 93% of overall domestic transport CO₂ emissions. Emissions from road transport have continuously increased both for passenger transport (+27% over 1990-2004) and freight transport emissions (+51% over 1990-2003).

This contrasts with progress towards the objective of reducing pollutant emissions from transport, with emissions falling by 4.4% per year on average between 2000 and 2004 for ozone precursors, and by 4.2% for particulates.

Harmful emissions from transport – ozone precursors, acidifying substances and fine particles – declined between 1990 and 2004 mainly due to stricter standards imposed on new road vehicles (Euro standards) and transport fuels. According to the baseline scenario presented in the Commission's Thematic Strategy on Air Pollution¹³, the share of land transport emissions would be 51% of the NO_x, 17.5% of the VOCs and 20.3% of the ultra fine particles emitted by overall land based sources in 2020. Emissions of SO₂ and NO_x from maritime transport remain a serious concern, as they are expected to exceed those of all land-based sources in the EU by 2020.

Average CO₂ emissions emitted per kilometre from new passenger cars have decreased steadily from 2000 to 2004 in the EU-15, at an average annual rate of 1.3%, but this rate of change is slower than in the previous decade, and is not sufficient to reach the 2008/09 target of 140 grams per kilometre, or the 2012 target of 120 grams per kilometre.

Despite the increase in road traffic, there has been a steady reduction in the number of deaths in accidents in both the EU-27 and the EU-15. The EU-15 is well on track to meet the proposed target of halving the number of deaths by 2010 compared to 2000, but the EU-27 lags slightly behind.

Progress within this key challenge is uneven: for a number of targets, there has been no real progress since 2000, as reflected by the headline indicator. For other objectives, developments have been unfavourable, as for the increase in energy consumption and emissions of GHGs by transport, but also favourable, regarding the decrease of emissions of other pollutants, and the number of road deaths. Statistics currently available for transport noise, and public passenger transport services do not allow an evaluation of progress towards related objectives.

The objective of achieving a balanced shift towards environmentally friendly transport modes has not yet been achieved. The EU-27 share of road in inland freight transport has continued to increase relatively slowly since 2000 to reach 76.5% in 2005, while for inland passenger transport, passenger-kilometres by car showed a relative stabilisation in the EU-15, but still reached 84.8% of total inland passenger transport in 2004.

Road congestion has been increasing, due to the growth of road transport use and general economic growth. Cars remain by far the dominant mode of passenger transport. The increase of car modal share to the detriment of rail mode is more acute in Member States that acceded to the EU since 2004. These trends are encouraged by unbalanced transport plans and programmes and detrimental transport charging and taxation policies. For example, the European Environment Agency¹⁴ identified that road transport receives more than 43% (€125 billion) of annual transport subsidies in the EU, whereas aviation receives 10 to 12% (€27 to

¹³ COM(2005) 446 and SEC (2005) 1132

¹⁴ EEA technical report n° 3/2007, Size, structure and distribution of transport subsidies in Europe.

35 billion) via preferential tax treatment, rail receives 25 to 27% (€73 billion) and water-borne transport receives 5 to 10% (€14 to 30 billion).

3.3. Key EU Policies Adopted

Objective 1 - Decoupling Economic Growth from Demand for Transport

The **7th framework programme for Community activities** in the area of research and technological development¹⁵ became operational on 1 January 2007. Under its specific programme on cooperation¹⁶, activities on transport (around €36 billion), including aeronautics, are intended to develop integrated, safer, greener and smarter pan-European transport systems for the benefit of all citizens, and society at large. It also contributes towards climate policy, respecting the environment and natural resources as well as securing and further developing the competitiveness of industry. Activities supporting cross-cutting thematic topics will focus on specific transport issues, for example, the use of alternative energy sources in transport applications; intelligent transport systems; and monitoring of environmental effects of transport, including climate change. Environmental research should cover ways of reducing the adverse impact of transport and optimising traffic and should include boosting transport efficiency. The same specific programme's activities on energy also address issues directly related to sustainable transport, such as the development of hydrogen and fuel cell technologies and renewable fuel production. These activities continue from the work programme under FP6, which addressed the objectives of new technologies and concepts for all surface transport modes (road, rail and waterborne), advanced design and production techniques, rebalancing and integrating different transport modes, increasing road, rail and waterborne safety and avoiding traffic congestion.

On 28 June 2006, the Commission adopted a Communication on freight transport logistics¹⁷. The Communication highlighted the need for an overall approach to the improvement of transport logistics in preparation for an action plan that is planned for adoption in October 2007.

The **ERDF and Cohesion Fund** support in 2007-1013 programmes will amount to around €36 billion for sustainable transport measures, such as investment in sustainable urban transport, railways and inland waterways, intelligent transport systems and multimodal transport.

Objective 2 - Sustainable Energy Use and Reducing Greenhouse Gas Emissions

On 22 June 2006, the European Commission adopted a Communication¹⁸ on the mid-term review of the 2001 transport White Paper. The Communication noted that the negative impact of mobility in terms of energy use and environmental quality must be reduced and that additional instruments would be needed to achieve these objectives. These measures include a

¹⁵ Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013), OJ L 41 of 30.12.2006.

¹⁶ Council Decision of 19 December 2006 concerning the specific programme 'Cooperation' implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 to 2013), OJ L 54 of 22.2.2007.

¹⁷ COM(2006) 336.

¹⁸ COM(2006) 314.

freight logistics action plan; intelligent transport systems to make mobility more sustainable and more efficient; a debate on how to change mobility of people in urban areas; an action plan to boost inland waterways; and a programme for green power in trucks and cars. The review announced a methodology as a basis for smart infrastructure charging by 2008.

The Commission adopted an **energy efficiency action plan**¹⁹ on 19 October 2006. The action plan identified the pressing need to realise the potential for energy efficiency gains in the transport sector, in particular by ensuring fuel efficiency of cars, developing markets for cleaner vehicles, ensuring the maintenance of proper tyre pressure, and by improving the efficiency of urban, rail, maritime and aviation transport systems, as well as changing transportation behaviour.

On 20th December 2006, the Commission adopted a proposal²⁰ to include aviation in the **EU Emissions Trading Scheme (ETS)**. The proposal provides for aviation to be brought into the EU ETS in two steps. From the start of 2011, emissions from all domestic and international flights between EU airports would be covered. One year later, at the start of 2012, the scope would be expanded to cover emissions from all international flights. This proposal is estimated to cut GHG emissions by 183 million tonnes of CO₂ annually by 2020 compared to business-as-usual. It is an express objective of this proposal to provide a model for aviation emissions trading that can be a point of reference in the EU's contacts with key international partners and to promote the development of similar systems worldwide.

Objective 3 - Reducing Pollutant Emissions to Minimise Effects on Health

In its conclusions²¹ of 9 March 2007, the Council Presidency highlighted the need to address emissions from international **aviation and maritime transport**. The Council also invited the Commission to review the EU Emissions Trading Scheme and to consider a possible extension of its scope to surface transport.

In May 2006, the Commission adopted a recommendation on the promotion of shore-side electricity for use by ships at berth in EU ports. It will eliminate local air and noise emissions from ships' engines while at berths in port. The recommendation provides information on practicalities, benefits and costs, calls for harmonized international standards and highlights possible ways of promoting the use shore-side electricity.

The **Marine Fuel Sulphur Directive**²² entered into force in 2005 and is starting to deliver improvements with regard to the emissions of SO_x from maritime transport in Sulphur Emission Control Areas. The Commission is pursuing additional measures at international level (IMO, International Maritime Organization).

On 31 January 2007 the European Commission proposed an amendment to the fuel quality Directive²³, intended to reduce the contribution of transport fuels to climate change and air pollution by setting continuously improving CO₂ reduction standards. A key measure is that, to encourage the development of lower-carbon fuels and biofuels, suppliers would have to reduce the GHG emissions caused by the production, transport and use of their fuels by 10%

¹⁹ COM(2006) 545 and SEC(2006) 1173.

²⁰ COM(2006) 818 final and SEC(2006) 1684.

²¹ Presidency Conclusions 7224/07 9.3.2007.

²² Directive 2005/33/EC adopted on 22.7.2005, OJ L 191.

²³ COM(2007) 18 final and SEC(2007)55.

between 2011 and 2020. This proposal will also bring about an improvement in the quality of transport fuels, the promotion of "second generation" biofuels that will bring bigger emission savings and better public health through a reduction in harmful pollutants.

Objective 4 - Balanced Shift towards Environmentally Friendly Transport Modes

In September 2007, the Commission announced the publication of a Green Paper on Urban Transport to identify potential European added value to action that is taken at the local level. Furthermore, as foreseen by the Thematic Strategy on the urban environment²⁴, it delivers technical guidance to Member States in 2007 on the main aspects of sustainable urban transport plans while taking account of the most recent experts' works, good practice and consultations carried out in 2007 to prepare its **Green Paper on urban transport**.

Objective 5 - Reduce Transport Noise

As required by the EU legislation on environmental noise²⁵, Member States are now preparing first sets of strategic noise maps (due by June 2007) and action plans (due by July 2008) with a view to preventing and reducing transport noise. The review on the implementation of this legislation is foreseen in 2009. It should take account of the updated information on exposure to transport noise from the noise maps that Member States will have to communicate to the Commission by the end of 2007 and assess the need for further Community actions and implementing strategies on transport sources.

Objective 6 - Improve Efficiency and Performance of Public Transport

Some activities that were announced in the mid-term review have already been taken forward. For example, on 24 January 2007, the Commission adopted an airport package, which included both a proposal for a Directive on airport charges and a Communication on airport capacity, efficiency and safety. The proposed Directive re-defines the relationship between airport operators and airport users by requiring total transparency, user-consultation and the application of the principle of non-discrimination when calculating charges levied on users. The Communication provides a comprehensive action plan detailing a coherent strategy for responsibly tackling congestion at European airports.

Objective 7 - Average Car Fleet Emissions of 140g/km in 2008 and 120 g/km in 2012

On 7 February 2007, the Commission adopted a **revised strategy²⁶ to reduce CO₂ emissions from new cars and vans** sold in the European Union. The Commission will propose a legislative framework, if possible in 2007 and at the latest by mid 2008, to achieve the objective of 120 g/km CO₂ (a public hearing was organised by the Commission on 11 July 2007). The strategy also foresees measures to promote the purchase of fuel efficient vehicles, notably through an amendment to the car labelling Directive to make it more effective and by encouraging Member States that levy road tax to base it on cars' CO₂ emissions. It also invites car manufacturers to develop and sign up to an EU code of good practice on car marketing

²⁴ COM(2005) 718 final and SEC(2006) 16.

²⁵ Directive 2002/49/EC of 25.6.2002 relating to the assessment and management of environmental noise, OJ L 189 18.7.2002 p. 12-25.

²⁶ COM(2007) 19 final and SEC(2007)60 of 7.2.2007.

and advertising to promote more sustainable consumption patterns. In total, the strategy would cut transport emissions by a cumulative total of over 400 million tonnes of CO₂ over the 2010-2020 period.

The European Parliament and the Council agreed in December 2006 on new regulations²⁷ (known as **Euro 5 and 6 standards**) setting stricter standards for cars and light commercial vehicles. These standards will apply from 1 September 2009, setting tighter emission limits of particles and of NO_x for new cars and vans sold in the EU market. Euro 6 will set significantly lower emission limits for NO_x emissions from diesel cars and will enter into force in 2014. Both regulations would contribute to meeting the objectives of both the Sustainable Development Strategy and the Thematic Strategy on **Air Pollution** while cutting annual transport emissions by 314 thousand tonnes of nitrogen oxides, 27 thousand tonnes of fine particles and 33 thousand tonnes of hydrocarbons in 2020. The Commission is now preparing new standards (Euro 6) on the emissions of heavy duty vehicles.

Objective 8 - Halving Road Transport Fatalities by 2010 Compared to 2000

It is still too early to evaluate the impact of efforts on road safety, undertaken after the adoption of the mid-term review of the transport White Paper in June 2006. The number of road deaths in EU-25 has been steadily declining in recent years. A 22% reduction in the number of the fatalities in the EU between 2001 and 2006 was achieved. Compared to 2001 (50 000 fatalities), around 12 000 lives were saved in 2006.

The **Directive 2004/54/EC on minimum safety requirements for tunnels** has been in force since May 2006. This Directive sets down a set of harmonised minimum safety standards dealing with the various organisational, structural, technical and operational aspects. The recast Directive 2006/126/EC on driving licenses²⁸ will fully enter in force in 2013. Among its provisions, it sets down minimum requirements for driving tests and driver training and minimum standards for physical and mental fitness for driving and for persons who conduct practical driving tests.

In October 2006 the Commission adopted a proposal for a **Directive on road infrastructure safety management**²⁹, the objective of which is to ensure that safety is integrated in all phases of planning, design and operation of road infrastructure in the Trans-European Network (TEN-T). On the same day, the Commission also adopted a proposal for a Directive on the retrofitting of mirrors to heavy goods vehicles³⁰, which seeks to improve the safety of road users, in particular vulnerable road users such as pedestrians, cyclists and motorcyclists through the extension of requirements to the existing fleet of heavy goods vehicles.

Work on accompanying measures, particularly on awareness raising is also continuing. For example, the European Road Safety Observatory has been further developed. The observatory will support all aspects of road and vehicle safety policy development at European and national levels. It will make new proposals for common European approaches in several areas including exposure data and safety performance indicators. The **European Road Safety Charter** now has more than 750 signatories (stakeholders willing to improve road safety).

²⁷ COD(2005)0282 and Commission Staff Working Document of 20.9.2006.

²⁸ Directive 2006/126/EC of the European Parliament and of the Council of 20 December 2006 on driving licences (Recast), OJ L 403 of 30.12.2006.

²⁹ COM(2006) 569.

³⁰ COM(2006) 570.

The first European Road Safety Day, organised on 27 April 2007, including a conference in Brussels, which focused on alcohol and drug use whilst driving, and training and education.

3.4. Member State Actions

Objective 1 - Decoupling Economic Growth from Demand for Transport

Some key initiatives under this objective are focused on transport policy, such as the lorry tolls (AT) or the toll system on highways (CZ). Others have reported modernisation of road infrastructure and taxes, (eg BG). Some Member States have written transport strategies (eg FI) and ensured that sustainable transport is written into other strategies such as national spatial planning and finance acts (eg IE, IT).

Objective 2 - Sustainable Energy Use and Reducing Greenhouse Gas Emissions

Most Member States report on this objective via fiscal measures to stimulate the reduction in GHG emissions, such as the purchase of smaller, more fuel efficient vehicles (eg DK), promotion of alternative fuels (eg RO) and specifically promotion of bio-fuels (eg AT, BG).

Objective 3 - Reducing Pollutant Emissions to Minimise Effects on Health

Member States have generally tied this in with objective 2, although some have cited specific tax-subsidies for purchasing energy efficient cars (eg BE), exemptions from excise duty (eg DK), tax subsidies (eg HU) and financial incentives (eg IT) and congestion charges (UK). Some states have implemented local speed limits and introduced park-and-ride schemes (eg AT, MA).

Objective 4 - Balanced Shift Towards Environmentally Friendly Transport Modes

Many countries report on a wide range of actions to promote a shift towards environmentally friendly multimodal transport modes (eg DK, HU), both for passengers (eg CZ) and for freight (eg NL). Public transport initiatives include investment schemes in rail (both national, regional and suburban), road charges and specific initiatives to promote bicycling (eg AT, BR, DK, FR, IT, UK).

Objective 5 - Reduce Transport Noise

A limited number of Member States have reported on this issue, with many initiatives taking place as part of a National Noise Strategy. Within their strategies, Member States aim to reduce road and railway noise (eg AT, DK), silent road surfaces (eg NL), mapping noise sources (eg UK) and noise partnerships between home owners and public authorities (eg DK).

Objective 6 - Improve Efficiency and Performance of Public Transport

Some Member States have stated investment in public transport (eg AT, HU, UK), including investment in regional airports. This will allow a strategic overview of transport on a regional level and will include establishing delegations regarding public transport associations (eg HU), harmonisation of timetables, regional organisation of transport (eg CY) and dedicated public transport lanes (eg EE)

Objective 7 - Average Car Fleet Emissions of 140g/km in 2008 and 120 g/km in 2012

Real progress towards this initiative is limited within the EU³¹ and therefore Member States tend to report this within other objectives of the theme. A few specific initiatives include the Austrian Advanced Automotive Technology Programme and the German National Fuel Strategy which includes a quota for biofuels.

Objective 8 - Halving Road Transport Fatalities by 2010 Compared to 2000

Member State reports remain broadly optimistic even though the objective of halving transport deaths by 2010 compared to 2000 remains a challenging goal³². Many initiatives are reported under this heading, including National Road Safety Strategy (eg CZ, GR), allocation of funds to road management (eg EE), improved inspections of vehicles (eg BG) and stringent speed control systems (eg FR).

3.5. Conclusions

Progress within this key challenge is uneven, with some targets seeing no real improvement since 2000. The indicators show that some areas such as the increase in energy consumption and emissions of GHGs by transport have been unfavourable, transport GHG emissions are still growing, with an average annual growth rate of 1.2% between 2000 and 2005 in the EU-27. Energy consumption by transport grew at an average rate of 1.3% per year between 2000 and 2005 in the EU-27. However, the statistics do not indicate a shift towards more environmentally friendly transport, as is required by this theme. Cars remain dominant and road congestion and therefore pollution has been increasing. The objective of achieving a balanced shift towards environmentally friendly transport modes has not been achieved. The EU-27 share of road in inland freight transport has continued to increase relatively slowly since 2000 to reach 76.5% in 2005, while for inland passenger transport, passenger-kilometres by car showed a relative stabilisation in the EU-15, but still reached 84.8% of total inland passenger transport in 2004.

Some areas such as reduction in the number of road deaths have seen more favourable statistics. Despite the increase in road traffic, there has been a steady reduction in the numbers killed in accidents in both the EU-27 and the EU-15. The EU-15 is well on track to meet the proposed target of halving the number of deaths by 2010 compared to 2000, but the EU-27 lags slightly behind.

In general, the EU has gone some way to mitigating the issues relevant to these objectives, including adopting legislation and policy initiatives such as those on airport and freight logistics. In addition, they have discussed appropriate measures and incentives which would help the economic, social and environmental sustainability in Europe, such as an amendment to the fuel quality directive intended to reduce the contribution of transport fuels to climate change and air pollution and new regulations setting stricter standards for cars and light commercial vehicles. In addition, the 7th Framework programme for Community activities has specific research and development areas related to transport. However, it should be noted

³¹ The European Federation for Transport and Environment reported that emissions for new cars were reduced only to 160 g of CO₂ /km, or 0.2% lower than the previous year.

³² A report published by the International Automobile Federation (2007) reports an increase in the number of road transport fatalities in 2006, for the first time since significant decreases in the last few years.

that the implementation of these policies has, to date, not had the desired effect on statistics such as emissions of GHGs, etc. The environmental impacts of international air and maritime transport are also a priority for the EU.

Member states have difficulty reporting these objectives separately as many of them are interlinked with other challenges. A number of Member States have implemented policies, such as promotion of bio-fuels, national fuel strategies and integrated spatial planning. However, these only give limited proof of objectives being effectively realised, with the links between objectives and actions not being sufficiently clear. Further work is required to integrate sustainable transport policies with other relevant initiatives such as spatial planning and energy use. A European sustainable mobility policy needs to build on a broader range of policy tools achieving shifts to more environmentally friendly modes where appropriate, especially on long distance, in urban areas and on congested corridors. At the same time, all transport modes must become more environmentally friendly, safe and energy efficient.

4. SUSTAINABLE CONSUMPTION AND PRODUCTION

4.1. Objectives

Overall Objective: To promote sustainable consumption and production patterns.

- Promoting sustainable consumption and production by addressing social and economic development within the carrying capacity of ecosystems and decoupling economic growth from environmental degradation.
- Improving the environmental and social performance for products and processes and encouraging their uptake by business and consumers.
- Aiming to achieve by 2010 an EU average level of Green Public Procurement (GPP) equal to that currently achieved by the best performing Member States.
- The EU should seek to increase its global market share in the field of environmental technologies and eco-innovations.

Refer to the 2006 Strategy for specific actions.

4.2. State of Play

Trends within this key challenge measured by statistical indicators are positive, but the indicators can only give a partial picture of progress made on this complex issue. The headline indicator for this theme is Resource Productivity, which compares Domestic Material Consumption (DMC) to GDP. Whilst no single indicator within the current SDI set allows an adequate assessment of the carrying capacity of ecosystems, the indicator on resource productivity is used as a proxy to evaluate the extent of decoupling. Whilst DMC had remained relatively stable from 1990 to 2000 in the EU-15, it actually decreased between 2000 and 2004, while GDP carried on increasing (albeit at a slower rate), revealing an absolute decoupling of material consumption from economic growth during that period, and an increase in resource productivity by 2.3% per year on average. However, there has been an effect of substitution by imports, which transfers some of the impact elsewhere.

The positive message given by the headline indicator about decoupling economic growth of resource use is reinforced by progress in terms of environmental performance of products and

processes. However, these objectives are imperfectly monitored, as for example environmental impact of resource use is not considered, nor the social dimension of products and processes. Two out of four objectives cannot yet be monitored, as current available data and knowledge are insufficient to measure GPP at EU level or the EU global market share of eco-innovations. However, the EC is developing indicators and methods for calculating GPP and aims at monitoring the situation by end 2008.

The Strategy also seeks to improve the environmental and social performance for products and processes and to encourage their uptake by businesses and consumers. More and more businesses have chosen to report on their environmental performance through environmental management schemes such as EMAS, with the number of certified sites having grown at an annual average rate of 7.4% in the EU-15 from 2000 to 2006. Nevertheless, the overall interest of companies in EMAS scheme remains limited: the number of registered EMAS companies is estimated at 5000, as compared to some 29 million companies existing in the EU. In addition, a rapidly increasing number of sustainable products and services are put on the market, with EU eco-label awards growing on average by 37.1% per year (2000-2006), with 326 flower awards in 2006 in the EU-15, and 338 in the EU-25. There is currently no EU wide certification scheme for the social performance of products and processes.

The current global market for eco-technologies is worth €600bn a year. The EU alone holds about one third of the world market in environmental goods³³. The eco-industry has grown to become one of Europe's biggest industrial sectors. It has an annual turnover of over €227 billion (around 2.2% of the EU GDP) and accounts for 1.7% of paid employment in the EU (around 3.4 million full-time job equivalents)³⁴.

Environmentally-friendly production could represent a much wider market trend than the sole eco-industry in the future. Eco-innovations (enabling groundbreaking resource-efficient production techniques) and eco-products (cleaner cars, energy-efficient light bulbs and products that stem from organic farming or that are awarded eco-labels) correspond to the European citizens' current wishes for a more sustainable society and thus could become a prevalent market.

In spite of positive developments in recent years, the total global use of natural resources remains higher than the planet's capacity to regenerate them. For instance, in 2005, average European use of biological capacity was estimated at 4.9 global hectares per person, much greater than our capacity of 2.2 global hectares per head. This overexploitation of resources causes increasing environmental damage and resource depletion in the EU and worldwide. One challenge for the EU is to sustain its social and economic development within the carrying capacity of the ecosystems.

4.3. Key EU Policies

In July 2007, the Commission launched a joint internet-based public consultation on actions the EU could undertake to meet the challenges of **Sustainable Consumption and Production and Sustainable Industrial Policy**³⁵ and improve the way we produce, design

³³ Roland Berger Strategy Consultants, Wirtschaftsfaktor Umweltschutz, Report on behalf of the German Federal Ministry for the Environment, Berlin, 2006.

³⁴ Ernst & Young, Eco-industry, its size, employment, perspectives and barriers to growth in an enlarged EU, August 2006.

³⁵ http://ec.europa.eu/environment/eussd/escp_en.htm.

and consume available products. Stakeholders' input to the consultation will help the Commission prepare **Action Plans on SCP and SIP** to address these three main challenges:

- Better products: improving environmental performance of products offered for sale through promotion of innovation.
- Leaner production: increasing the efficiency of EU's production by assisting producers to earn greater profits by meeting market demand for better performing products.
- Smarter consumption - changing consumption behaviours.

The approach of the SCP Action Plan will be:

- Focusing on key environmental issues, such as climate change and a low-carbon economy, sustainable and efficient use of natural resources, energy and materials, and the further phasing out of hazardous substances and endangered materials³⁶ from production processes and products
- Taking a product-based approach, by focusing on "priority products" – product types which cause the greatest environmental damage or have the greatest potential for increased resource efficiency, also using outcomes from Commission research to strengthen the evidence-base of policy making
- Building on existing policy instruments, such as the Integrated Product Policy, the Sustainable Use of Natural Resources strategy, the Eco-design of Energy-Using Products, and other product legislation and labelling schemes;
- Ensuring policy coherence, by strengthening existing and developing new policy instruments, identifying gaps and avoiding overlaps.
- The Action Plan will aim to focus on a limited number of actions, mainly building on and strengthening existing policy instruments (eg EU Eco-design legislation, EMAS, Eco-Label, Green Procurement). A selected number of new instruments could be considered in parallel so as to achieve the objectives of the Plan and reinforce the impacts of existing policy instruments.

The EU is also very active on SCP internationally. It cooperates with partners to develop a 10 year framework of programmes (Marrakech Process) supporting the already existing national and regional sustainable consumption and production practices and strategies. It supports the UN in setting up an international scientific panel on natural resources and promotes SCP in key emerging economies through national roundtables in China, India, Brazil and South-Africa.

Objective 1 - Addressing Social and Economic Development

The 1996 Integrated Pollution Prevention and Control Directive³⁷ has three main objectives: contributing to decoupling economic growth from environmental degradation; improving the

³⁶ For example over-harvested tropical timber.

³⁷ <http://europa.eu/scadplus/leg/en/lvb/l28045.htm>

environmental performance for processes; and promoting and disseminating environmental technologies. A key implementation deadline for the **IPPC Directive is October 2007**, by which date Member States have to issue permits in accordance with the Directive for all installations covered. During the past year the Commission and the Member States have worked actively towards this deadline to ensure the proper implementation of the Directive.

At the end of 2005 the Commission started a process to review the IPPC Directive and related legislation on industrial emissions. The review aims at simplification and better regulation, and is evaluating the scope to improve the functioning of the Directive, its relation with other industrial emission-related legislation and the effectiveness of market-based instruments, whilst not altering the main underlying principles and level of ambition. Promotion of eco-innovation and dissemination of **environmental techniques** is looked at in the process. A proposal for an amended Directive is planned for adoption by the end of 2007.

Objective 2 - Improving Performance for Products and Processes

The Commission has started detailed reviews to simplify and improve the **EMAS (EU Eco-Management and Auditing System) and Ecolabel (product) schemes** by exploring links with other legislation and making them more attractive to smaller firms. The Ecolabel scheme is being revised to be easier to use and to fit better with other instruments, thus forming an integral part of the SCP Action Plan.

In addition, the following initiatives are relevant:

- The **European Consumer Diary** is an EU-wide effort to inform young people of their rights, increase their awareness and to enable them to make more informed decisions as consumers. The 2006/2007 and 2007/2008 editions include texts on sustainable and ethical consumption as well as on sustainable development.³⁸
- **DOLCETA**³⁹ is a web-based consumer education tool that SANCO has developed in co-operation with higher education institutions. A teacher training module on consumer education will be developed at the end of 2008 and will include a part on sustainable and ethical consumption as well as on sustainable development.
- Implementation of the **Eco-Design of Energy Using Products** Directive which imposes energy efficiency requirements on products from early in the design phase.

Objective 3 - Green Public Procurement (GPP)

Considering the enormous purchasing power and example setting function of public authorities, GPP can be considered as a valuable instrument for greening consumption and production patterns and stimulating eco-innovation. Commonly agreed (voluntary) GPP criteria and targets should allow increased GPP practise in the EU, whilst at the same time improving **eco-efficiency and compliance with public procurement legislation**.

Commission will adopt early 2008 a Communication on GPP, providing operational and legal guidance to facilitate GPP, proposing targets and setting the framework for increased co-

³⁸ http://europa.eu.int/comm/consumers/cons_info/consumer_diary_en.htm.

³⁹ <http://www.dolceta.eu/>

operation with the Member States to establish harmonised GPP criteria and spread GPP across the EU. A web based toolbox will be provided by Commission to public authorities early 2008 containing detailed tender specifications in order to help them to achieve the GPP targets set by the Council in 2006.

The Commission has also been active in promoting GPP. The extensive and constantly updated GPP website⁴⁰ provides comprehensive information on GPP and lists past and forthcoming promotional events. A handbook "**Buying Green**"⁴¹ prepared by the Commission explains in concrete terms how environmental considerations can be integrated into tendering procedures. It clarifies the legal possibilities as introduced by recent directives of integrating environmental considerations in public procurement and includes concrete examples of environmental tendering by local authorities in Europe.

Objective 4 - Environmental Technologies and Eco-Innovations

The EU Environmental Technologies Action Plan (ETAP)⁴² which aims to stimulate eco-innovation and the take-up of environmental technologies on a broad scale, was launched in 2004. The ultimate aim of ETAP is that eco-innovation becomes pervasive across all industries. In this way EU can meet many of the environmental challenges facing us today. Through appropriate measures, eg financial support or regulation it is possible to support eco-innovation and steer market forces towards a world-leading economy that is both competitive and green.

A second report on ETAP was published in 2007⁴³. The report shows that European eco-industries are a significant and quickly growing portion of the EU economy representing 2.1% of EU GDP. Eco-industries and services sustain 3.5 million full-time jobs. There is strong growth in a number of sectors Europe and worldwide. Wind power installation has grown 20-25% in the last five years. The worldwide photovoltaic market is expected to grow at 25-35% in the future, and water management is expected to grow 6% annually in the next ten years. European businesses involved in eco-industries are in a strong position worldwide. However, these positive indications contrast with those of the state of the environment which give rise to serious concern.

A lot of progress has been made on implementing ETAP. In the field of research, about €1.4 billion has been awarded to environmental technology projects under the 6th Framework Programme, and it is estimated that up to 30% of the €32 billion budget of the 7th Framework Programme will address environmental technologies. More than **30 Technology Platforms** have been launched; many of them include environmental technologies as part of their agendas. Work on an Environmental Technologies Verification System is progressing. With regard to improving market conditions for environmental technologies, the existing or currently developed financial instruments to promote eco-innovation include the Competitiveness and Innovation Programme (CIP €433 million for eco-innovation), the **EIF's Growth and Innovation Facility** which will co-invest money into risk capital funds in eco-innovation, the EIB and the Commission's Risk Sharing Finance Facility (€2 billion for projects falling within the FP7 themes plus EIB loans up to €10 billion). Structural funds

⁴⁰ http://ec.europa.eu/environment/gpp/index_en.htm

⁴¹ http://ec.europa.eu/environment/gpp/pdf/buying_green_handbook_en.pdf

⁴² http://ec.europa.eu/environment/etap/index_en.htm

⁴³ http://ec.europa.eu/environment/etap/pdfs/comm_pdf_com_2007_0162_f_en_acte.pdf

where eco-innovation, renewable energy, energy efficiency and clean urban transport are priorities in the 2007-13 programming period, the **LIFE environment programme** where around two-thirds of the investment supported projects promoting environmental technologies. Studies have also been carried out to set up a performance target scheme in the EU. As for global actions, the EIB and the Commission's **Global Energy Efficiency and Renewable Energy Fund (GEEREF)**⁴⁴ will provide seed capital for renewable energy projects in various regions. The EIB Climate Change Financing Facility (CCFF)⁴⁵ enables some financing for projects globally. In the context of the WTO negotiations on multilateral trade liberalisation, the Commission has been at the forefront of pushing for the reduction or elimination of tariffs, as well as the abolition of non-tariff barriers, on trade in environmental goods, technologies and services.

In order to make eco-innovation yield large scale environmental and economic benefits, ETAP activities have been stepped up and carried out on a new scale, with much more emphasis on demand. Large environmental gains can be made by taking-up environmental technologies that already exist on the market, but the problem is that many remain in niche markets. One example is that energy efficient light bulbs still only account for less than 3% of European market share of light bulbs.

In order to encourage the diffusion and take up of eco-innovations on a broad scale, systematic and coordinated activity on the demand-side is needed. ETAP report proposes 5 actions that increase demand. They include furthering Green Procurement, both in public and private sector; mobilising greater financial investments, with a greater role of the financial sector in leveraging businesses and industry to take-up environmental technologies; establishing **Technology Verification and Performance Targets** systems; building on promising practice of Member States for promoting eco-innovation; focusing on sectors where large environmental yields can be made quickly, such as buildings, food and drink, private transport, recycling and waste water industries. In addition, proposed support measures include ensuring a strategic knowledge resource on eco-innovation for European public organisations, relevant business and financiers; promoting awareness and active participation with consumers and businesses; harnessing research on eco-innovations.

The Commission has adopted an Action Plan on the Protection and Welfare of Animals 2006-2010 embodies the Commission's commitment to EU citizens, stakeholders, the European Parliament and the Council for a clear map of the Commission's planned animal welfare initiatives for the coming years. The plan highlights the important role of consumers to improve animal welfare standards by informing purchasing decisions and, in the same time, to enable producers applying high standards to capitalise on their efforts.

4.4. Member State Actions

Objective 1 - Addressing Social and Economic Development

Public authorities and consumers representations in Member States run publicity campaigns and provide information aimed at promoting sustainable consumption. The objective is to promote sustainable consumption patterns by strengthening the awareness of the citizens and to encourage them to change their non-sustainable consumption patterns. Initiatives included

⁴⁴ http://ec.europa.eu/environment/jrec/energy_fund_en.htm

⁴⁵ http://ec.europa.eu/fisheries/cfp/2002_reform_en.htm

information on the website of the consumer agency on sustainable consumption options (eg SE), the Government guide to greener living (eg UK), the 'Every Action Counts' campaign to encourage Community Groups to take simple actions such as "travel wisely" and "shop ethically" (eg UK); competitions for schools aimed at promoting sustainable consumption (eg AT); "Green Responsibility" campaign focused on citizens responsibility for the future and on advices about how to live in an environmentally correct way (eg DK). Finland funded research projects that investigated the environmental impacts of consumption. The objective was to develop methods and illustrative tools to improve the eco-efficiency of households and to refine the responsibility of the food chain in co-operation with industry and commerce.

Consumers' awareness of sustainable consumption patterns is particularly strong regarding food products. In Austria, bio-products account already for 6% of the market, and 15% of the national farmland is already being managed organically. This can be attributed to a mixture of measures, ranging from marketing initiatives and subsidies for organic farmers and, to public relations and research. In Denmark, up to DKK 300 million for grade labelling, innovation, information and support to farmers. At the same time the government supports research in and marketing of organic farming.

Member States support national and European eco-labels by running information campaigns and websites aimed at making consumers aware of environment-friendly alternatives in terms of products and services. Nevertheless, the number of companies and products which have an eco-label remains limited; for instance, in France there are 65 companies with a French label and 50 with a European label. Portugal has six companies with European eco-labels.

This broad-ranging objective includes the fundamental target to decouple economic growth from environmental degradation. Although the majority of Member States report on progress in this field, there appears to be only limited consistency in the approach to be taken. Actions are dominated by energy efficiency and waste management initiatives. Only few countries have mentioned participation in the Marrakesh process (eg the UK provides funding of UNEP to develop a manual to help countries draft national SCP strategies) or development of an SCP action plan. However, some Member States have granted priority to sustainable consumption and production in their national sustainable development strategies.

Objective 2 - Improving Performance for Products and Processes

Many Member States report on initiatives aimed at improving environmental and social performance of companies, usually under the name of Corporate Social Responsibility (CSR). Public authorities frequently stimulate and support these corporate initiatives, especially with regard to small and medium enterprises. In the Netherlands, the authorities established CSR Netherlands, a foundation which is a platform for the exchange of knowledge and experience on CSR within firms, with a special focus on small and medium sized enterprises (SMEs). To date the organisation collected over 180 practical examples and 130 instruments to improve sustainable corporate behaviour, submitted by over 250 partners. In France companies listed on French stock exchange are obliged by law to include social and environmental information in their annual reports. The value of socially responsible investment increased in France between 2003 and 2005 from €3.5 billion to €8.8 billion. Voluntary commitments with professional organisations cover a wide range of areas including such as greenhouse effect, social and environmental responsibility, industrial and health risks, controlling energy and water consumption, sewage, waste etc.

In addition, most Member States are particularly active in promoting sustainable products. This is often done through information campaigns, aiming to achieve a behavioural change and to raise citizens' awareness, in particular of the benefits of fair trade for both developed and developing countries. An important instrument in these campaigns is the promotion of eco or fair trade labels. Some states have focused more deeply on how the environmental impacts associated with the lifecycle impacts of key products can be addressed. Member States also try to make better use of the potential of innovative technologies for encouraging sustainable development.

Member States report on implementation of Eco-Management and Audit Scheme (EMAS)⁴⁶ and other schemes improving environmental performance of processes, implemented on voluntary market-oriented basis, sometimes financially supported from public funds. For instance Austria grants an EMAS Prize for the best environmental declarations and finances workshops for EMAS organisations and municipalities. Italy allocated grants to reimburse costs of activating Environmental Management Systems in SMEs. The Flemish government in Belgium developed the Presti programme that stimulates SMEs to integrate environmental management and prevention in their policy. Nevertheless, the overall interest of companies in EMAS scheme remains limited, the other less demanding eco-management schemes are more popular. The number of registered EMAS companies is estimated at 5000, as compared to some 29 million companies existing in the EU. In Austria, which heads the EU list in terms of the number of EMAS registrations per population, there are 263 registered EMAS organisations, rising by on average 20 per year. In Czech Republic there were 1,400 undertakings with ISO 14001 registered, 18 with EMAS. In Slovenia only one company introduced the EMAS system, while over 320 companies have obtained the ISO 14001 certificate and approximately 50 companies the OHSAS 18001 certificate, which relates to protection of health and safety at work. However, none of the countries has specifically mentioned environmental or social targets for products and processes as is one of the actions in the EU SDS for SCP. Most Member States report about some initiatives to promote consumer awareness and some are also engaged in the business dialogue.

Objective 3 - Green Public Procurement (GPP)

GPP stands out as an issue where public authorities can easily contribute to sustainable development. 10 Member States have adopted national action plans on GPP, 5 more have adopted draft national action plans and 7 more are moving towards the adoption of such plans. Some Member States set national GPP targets. In the Netherlands, public procurement by the central government and its agencies is to be 100% sustainable by 2010. As government agencies spend €40 billion on procurement and investment each year, their purchasing power has a major influence on the market. As far as provinces, municipalities and water boards are concerned, 50% of their procurement contracts will be sustainable by 2010. They are supported by a government programme, Sustainable Operational Management.

The interaction, dialogue and information between business and government is an important element of successful GPP schemes. The UK Government Sustainable Procurement Action Plan followed the recommendations of a business-lead Sustainable Procurement Task Force. In Sweden, the Swedish Environmental Management Council, a company co-owned by the central and local government and by the Confederation of Swedish Enterprises, provides

⁴⁶ http://ec.europa.eu/environment/emas/index_en.htm

expertise, training and a web-based tool to public purchasers that want to include environmental requirements in technical specifications.

However, in many Member States, GPP does not yet play an active enough role, especially considering the purchasing power and example setting function of these bodies.

Objective 4 - Environmental Technologies and Eco-Innovations

Member States reported on a number of activities to help utilise the potential of innovative technologies for encouraging sustainable development. Examples include establishment of joint government and business bodies aimed at strengthening business opportunities and combating barriers to development of environmental technologies (eg SE, UK); improving access to finance for environmental technologies, including financial incentives (UK); awarding prizes to companies which implement innovations important for sustainable development and social responsibility (IT); creation of environmental technologies excellence centres, which merge the research capacities of the research institutes and universities with the needs of the economy in order to provide integrated solution to the environmental problems (eg SI).

In the context of the ETAP, twenty-one Member States and Norway have completed in 2007 roadmaps for implementing ETAP. An analysis of the roadmaps made by the Commission shows that a number of promising schemes are being put into place by Member States, and there is an opportunity to build on and learn from these across the EU. Examples include:

- Germany's feed-in tariff scheme has been instrumental in boosting use of renewable energy – a number of Member States have adopted similar schemes.
- Italy's national decree requires that at least 30% of goods purchased by public authorities be of recycled origin.
- Spain's national and regional policies have spurred the deployment of solar energy, through a number of coordinated measures.
- The UK's National Industrial Symbiosis Programme, aims to save 1 million tonnes of waste per region per year, through a brokerage scheme for companies.
- A range of financial schemes to promote eco-innovation, for example those established in the Netherlands, Denmark, Finland and Sweden.

The Commission's analysis indicates that almost all Member States put emphasis on the supply side of environmental technologies, namely research and development. Encouraging more activity on the demand side and better coordination of demand side actions is key to enabling the rapid take-up and diffusion of technologies. Examples of demand creating activities include: GPP, promoting investments, effective subsidies and incentives, raising awareness and training in business. Member States are encouraged to share and build on best practices in this respect and on the most effective schemes for promoting eco-innovation being put into place by Member States.

4.5. Conclusions

Over the last few decades, Europeans have been enjoying higher standards of living with more and more people making use of goods and services not available to them in the past. But at the same time, the way we consume and produce is the main source of the pressure that is put on the environment. Current consumption and production patterns threaten to significantly exceed Earth's carrying capacity, on which our prosperity and well-being is ultimately based.

Years of intensive public communication on environmental sound and sustainable consumption behaviour have informed citizens about their own options to bring around a cleaner environment, but results in terms of changing consumption patterns have been very limited. The use of subsidies on certain products like isolation material for houses, hybrid cars or energy efficient lighting has left its mark, but frequently did not sustain after the withdrawal of the subsidy scheme. Under public scrutiny and government pressure producers changed their production processes (less product loss, improved energy or water use, waste minimization) or input of natural resources (changing to sustainable products, assisting suppliers in crop management, pesticides management, harvesting techniques, etc.). The growing success of CSR, increasingly also with SMEs, provides a window of opportunities for further voluntary measures towards sustainable production.

Achieving more sustainable consumption and production patterns has also a strong link to Europe's economy. On the one hand, it calls for structural changes in the economy of the EU in order to decouple economic growth from resources' use. On the other hand, SCP in itself represents a new market opportunities for European companies:

On the whole, there is certainly a lot of room for improvement to make consumption and production patterns more sustainable. For example, in the EU, the average material intensity is approximately 1 kg/EUR, which is slightly less than in the United States, but twice as high as in Japan⁴⁷. Although the energy intensity of the European economy has been slightly but steadily decreasing for the last 10 years, it is still near twice as high as the one of the Japan economy⁴⁸. The EU could save at least 20% of its present energy consumption in a cost-effective manner, equivalent to €60 billion per year, or the present combined energy consumption of Germany and Finland. An average EU household could save between €200 and €1000 per year in a cost-effective manner, depending on its energy consumption⁴⁹. Although strategies exist to assist this process, seemingly very little action has actually taken place. There is no room for complacency and an accelerated rollout of the "knowledge intensive" economy increasingly replacing the "resource intensive" model will be required if our ambitious energy efficiency and GHG targets are to be achieved.

Considering the enormous purchasing power and example setting function of public authorities, GPP plays a very important role for greening consumption and production patterns and stimulating eco-innovation. The Commission works on a GPP Communication to give further guidance and set indicative targets in order to increase both the amount of GPP (as compared to "neutral" procurement) and the quality of GPP (in terms of environmental ambition level and compliance with public procurement legislation). Almost all Member States have adopted or prepare national action plans on GPP. The interaction, dialogue and

⁴⁷ EEA Report, Sustainable use and management of natural resources, n°9/2005

⁴⁸ With an amount of 210 kg of oil equivalent per 1000 EUR (in 2004): European Commission/DG Environment, Facts and figures: the links between EU's economy and the environment, June 2007

⁴⁹ European Commission, Green Paper on Energy Efficiency or Doing More With Less, COM(2005)265

information between business and government is an important element of successful GPP scheme. Good practice in this respect includes business-led recommendations on GPP as well as providing expertise, training and information to public purchasers and business interested in GPP. Nevertheless in many Member States GPP implementation is only in a initial phase and substantial efforts are needed in coming years.

Environmental technologies provide solutions to meet environmental challenges and at the same time to improve competitiveness of EU industry and create new jobs. The EU Environmental Technologies Action Plan (ETAP) aims at stimulating eco-innovation across all industries and the take-up of environmental technologies on a broad scale. A lot of progress has been made on implementing ETAP in getting research to market, improving market conditions for environmental technologies and acting globally. In order to make eco-innovation yield large scale environmental and economic benefits, ETAP activities have been stepped up and carried out on a new scale, with much more emphasis on increasing demand for eco-innovations. Priority actions for the future include: stimulating demand through furthering Green Procurement, both in public and private sector; mobilising greater financial investments, with a greater role of the financial sector in leveraging businesses and industry to take-up environmental technologies; establishing Technology Verification and Performance Targets systems; building on promising practice of Member States for promoting eco-innovation; focusing on sectors where large environmental yields can be made quickly, such as buildings, food and drink, private transport, recycling and waste water industries. In addition, proposed support measures include: ensuring a strategic knowledge resource on eco-innovation for European public organisations, relevant business and financiers; promoting awareness and active participation with consumers and business; harnessing research on eco-innovations.

Some promising orientations in the field of SCP in the years to come could also include: further implementation of the Integrated Product Policy approach; creation of incentives to allow eco-innovations and eco-products markets to grow; development of market-based instruments to ensure that policy goals are reached cost-effectively; and last but not least, a better recognition of the challenges that sustainable consumption and production patterns represent at the global level.

Although a wide range of actions are being initiated by Member States in this area, there appears to be a lack of direction, particularly concerning objectives 1, 2 and 4. Some Member States have a broad range of action plans and strategies, although there is little action in several countries. A specific observation concerns the various national labelling schemes that have been created, as these could possibly fragment the internal market and serve as a barrier for cross border trade, confuse consumers and not free of quality assurance concerns. A wider and more fundamental concern is that the current level of activities under this heading is limited in the light of the deep-seated habits of producers and consumers.

5. CONSERVATION AND MANAGEMENT OF NATURAL RESOURCES

5.1. Objectives

Overall Objective: Improve management and avoid overexploitation of natural resources, recognising the value of ecosystem services.

- Improving resource efficiency to reduce the overall use of non renewable natural resources and the related environmental impacts of raw materials use, thereby using renewable natural resources at a rate that does not exceed their regeneration capacity.
- Gaining and maintaining a competitive advantage by improving resource efficiency, inter alia through the promotion of eco-efficient innovations.
- Improving management and avoiding overexploitation of renewable natural resources such as fisheries, biodiversity, water, air, soil and atmosphere, restoring degraded marine ecosystems by 2015 in line with the Johannesburg Plan (2002) including achievement of the Maximum Yield in Fisheries by 2015.
- Halting the loss of biodiversity and contributing to a significant reduction in the worldwide rate of biodiversity loss by 2010.
- Contributing effectively to achieving the four United Nations global objectives on forests by 2015.
- Avoiding the generation of waste and enhancing efficient use of natural resources by applying the concept of life-cycle thinking and promoting reuse and recycling.

Refer to the 2006 Strategy for specific actions.

5.2. State of Play

Some significant measures have been taken for halting the loss of biodiversity in Europe. For instance, the Natura 2000 network of protected areas now consists of about 30,000 sites and covers an area of the size of Germany. Nevertheless, in many areas, integration of biodiversity in policies is still weak and it is clear that business as usual will not deliver. Whilst there is a certain degree of statistical stability within most elements of this theme, including areas such as forestry, waste generation and resource efficiency, the indicators for bio-diversity loss including indicators such as trends in fish stocks are still of major concern.

Progress towards the first objective of reducing the overall use of non renewable natural resources is measured through Domestic Material Consumption (DMC). DMC has decreased by 0.8% per year on average between 2000 and 2004, reversing the trend of a slow average growth of 0.1% per year from 1990 to 2000⁵⁰. DMC only gives an approximation of the environmental impacts related to resource use as it does not reflect the range of impacts of different types of material use on the environment. However, there has been an effect of substitution of resources by imports, which transfers some of the impacts elsewhere.

The Strategy also aims to improve resource efficiency, which can be defined in terms of resource productivity. Resource productivity has increased by 2.3% between 2000 and 2004. One of the means specified for improving resource efficiency is the promotion of eco-efficient innovations. Data collection on eco-innovations is too recent to evaluate changes over time, however the latest data show that, at the EU-27 level, innovation seemed to have little effect on consumption of materials and energy since only 8.4% of enterprises cited this effect as highly important in 2004 when asked to classify the effects of their innovation.

⁵⁰ Eurostat 2007 Monitoring report

The general objective related to renewable natural resources is to improve management and avoid overexploitation of resources. A considerable proportion of fish catches in EU-managed waters is taken from stocks that are already below their safe biological limits, particularly for highly valued species (white fish). Whilst the population of hake appears to have recovered, trends in demersal and benthic fish stocks, such as cod, plaice and sole, remain of concern. Existing data do not allow the assessment of the related objective of restoring degraded marine ecosystems by 2015. Data on water abstraction does not allow an assessment at EU level. From 2000 to 2003, most of the Member States for which data is available appear to have reduced the pressure on water resources by reducing their abstraction of groundwater. The picture is less clear for surface water, with increases in abstraction in some countries. Air and atmosphere are considered as renewable resources in terms of their absorption capacity for pollutants and are covered under other key challenges such as those related to climate change or transport. Data related to soil quality are not sufficiently developed at this stage to be included in an EU-level assessment.

The specific target related to biodiversity is to halt the loss of biodiversity by 2010. Whereas the current indicator shows a relative degree of stabilisation, as the common birds index has increased by 0.5% per year on average from 2000 to 2005, while the average annual rate of change for the farmland birds index was -0.3%. The Habitats and Birds Directives form the pillars of EU biodiversity legislation and the Index of Sufficiency (which questions if the measures are effective in reaching the objectives) shows the degree of their implementation in terms of areas covered and numbers of species under protection. At EU-15 level, the index of sufficiency, currently only available for the Habitats Directive, has steadily increased from 2003 to 2006, to reach 93%, while the first assessment at EU-25 level resulted in an index of 82%. In most bio-geographical regions, the index has reached at least 90%, although the coverage of the larger boreal and continental regions is still insufficient.

The European Mammal Assessment (EMA) is the first comprehensive assessment of the conservation status of mammals at a European level. It was commissioned by the European Commission and carried out by the World Conservation Union (IUCN). Key findings include:

- 15% of Europe's mammal species are threatened, and a further 9% are close to qualifying for threatened status.
- A higher proportion of marine mammals are threatened than terrestrial mammals (22% versus 14%).
- 27% of European mammals have declining populations. A further 32% are stable, and 33% are of unknown population trend. Only 8% of species populations are increasing. A number of these increases are due to successful species-specific conservation action.

Regarding forests, the EU should contribute effectively to achieving the four United Nations global objectives on forests by 2015. In terms of management, fellings (or removals) should not be in excess of increment. Fellings of forest trees as a share of increment rose in the EU-15 during the 1990s, from 54% in 1990 to 63% in 2000. Fellings continued to increase after 2000, although at a slower rate. Lack of recent data on increment impedes further assessment up to 2005, but it is estimated that the ratio of fellings to increment is still sustainable.

Concerning soil quality, human-induced driving forces causing soil deterioration are showing an upward trend, as it is climate change that is exacerbating both GHG emissions from soil and threats such as erosion, landslides, salinisation and organic matter decline. For example,

an estimated 115 million hectares or 12% of Europe's total land area are subject to water erosion, and 42 million hectares are affected by wind erosion; 45% of European soils have low organic matter content; the number of potentially contaminated sites in EU-25 is estimated at approximately 3.5 million.

The Strategy also aims to avoid the generation of waste enhancing efficient use of natural resources by applying the concept of life-cycle thinking and promoting reuse and recycling. Since 2000, municipal waste generation in the EU-27 stabilised around 520 kg per capita, following steady growth between 1995 and 2000, with an average annual growth rate of 2.5%. From 2000 to 2005, it is estimated that recycling increased by more than 5% per year.

In conclusion, there is a degree of stabilisation with most elements of this theme, including areas such as biodiversity, forestry, and waste generation. Resource efficiency has increased. Indicators for issues such as the benefits of eco-innovations, and data for soil quality are difficult to assess. Some areas such as trends in certain fish stocks are still of major concern.

5.3. Key EU Policies

Overall EU policy framework in this sector is largely in place. However, significant efforts are required to meet the targets of halting biodiversity loss in the EU by 2010, and significantly reducing the rate of biodiversity loss worldwide by 2010. Ecological sustainability and ecosystem resilience depends upon the continuity of critical ecosystems functions. A disruption in the flow of "connecting" ecosystems' intermediaries like food, water, or pure air may disrupt the whole ecosystem. Continued efforts will be required to meet the demands of sustainable development for this theme. In addition, there is planned ERDF and Cohesion Fund support in 2007-13 programmes of around €34 billion, for activities related to this challenge, such as the promotion of biodiversity and nature protection (including Natura 2000), protection and development of natural heritage, environmental risk prevention, as well as the management, treatment and distribution of drinking and waste water. Moreover, under the Cohesion Policy programmes around €9 billion are foreseen for support to measures such as renewable energy, energy efficiency or air quality.

Objective 1 - Improving Resource Efficiency

The **EU Thematic Strategy** for the sustainable use of natural resources focuses on both resource and energy efficiency, in order to stimulate growth while reducing environmental impact from resource use. The impacts of unsustainable resource use include eg climate change due to fossil fuel use, land use and environmental degradation due to mineral extraction and processing, overexploitation of soil and fish stocks or the depletion of water resources.

To decouple environmental impacts from economic growth, the Strategy adopts a life-cycle approach. This means that the environmental impacts are considered at each stage of the life-cycle of a resource – during extraction/harvesting, transport, processing/refining, the use phase of the products made from it, and when a product or resource becomes waste at the end of its useful life – avoiding that negative impacts are shifted to other environmental media, to other stages of the life cycle, or to other countries.

The Commission is in the process of implementing the **Resource Strategy** by the following initiatives:

- To enhance knowledge based policy, the **European Environmental Data Centre** on natural resources, in conjunction to those on products and waste, is set up by Eurostat, in collaboration with the JRC and the EEA. The main objective is to deliver policy relevant information on resource use and its environmental impacts;
- To measure progress, impact indicators are being developed;
- The involvement of economic sectors is enhanced to take concrete actions;
- EU Member States involvement is stimulated, focussing on resource uses with the most significant impacts, to guide the development of national measures;
- To take into account the global dimension, the International Panel on the sustainable use of natural resources is set up together with UNEP. The Panel's objective is to provide scientific advice to governments and international organisations.

With its wide approach the Resource Strategy has a co-ordinating function to ensure enhanced policy coherence and efficiency. A significant degree of political buy-in at various levels is already achieved. Its objectives are largely shared by **Council, European Parliament, Member States, and international organisations as the OECD**. The challenge will be to integrate this life-cycle approach into all policies and decision-making.

Objective 2 - Gaining and Maintaining Competitive Advantage...Eco-Efficient Innovations

The EU Environmental Technologies Action Plan (ETAP)⁵¹ to stimulate eco-innovation and the take-up of environmental technologies on a broad scale was launched in 2004. The ultimate aim of ETAP is that eco-innovation becomes pervasive across all industries, meeting many of the most relevant environmental challenges. A second report on ETAP published in 2007⁵² stated that Eco-industries and services sustain 3.5 million full-time jobs. There is strong growth in a number of sectors Europe and worldwide. Wind power installation has grown 20-25% in the last five years. The worldwide photovoltaic market is expected to grow at 25-35% in the future, and water management is expected to grow 6% annually in the next ten years.

A lot of progress has been made on implementing ETAP. In the field of research, about €1.4 billion has been awarded to environmental technology projects under the 6th Framework Programme, and it is estimated that up to 30% of the €32 billion budget of the 7th Framework Programme will address environmental technologies. More than **30 Technology Platforms** have been launched; many of them include environmental technologies as part of their agendas. The EIB and the Commission's Global Energy Efficiency and Renewable Energy Fund (GEEREF)⁵³ will provide seed capital for renewable energy projects in various regions, whilst the **EIB Climate Change Financing Facility (CCFF)**⁵⁴ enables some financing for projects globally.

Objective 3 - Management and Avoiding Overexploitation

⁵¹ http://ec.europa.eu/environment/etap/index_en.htm

⁵² http://ec.europa.eu/environment/etap/pdfs/comm_pdf_com_2007_0162_f_en_acte.pdf

⁵³ http://ec.europa.eu/environment/jrec/energy_fund_en.htm

⁵⁴ http://www.eib.org/cms/htm/en/eib.org/attachments/ccff_en.pdf

The 2002 reformed Common Fisheries Policy (CFP)⁵⁵ takes more account of the impact of fisheries on the environment and favours sustainable exploitation of fisheries resources. The reform priority objectives included environmental integration, long-term plans, capacity reduction, improved control and stakeholder consultation, as well as integrating the economic dimension of fisheries into management under the CFP. A number of issues are specifically relevant:

- The Regional Advisory Committees were created.
- The Commission intensified consultations with stakeholders and incorporated substantial elements of stakeholder advice into its proposals.
- More attention paid to social and economic consequences by conducting impact assessment before new policies are adopted.
- More stocks are now under long-term plans, with effort management being introduced in long term management plan as a complementary conservation tool. Some Member States have made significant improvements in their control and enforcement systems.
- Work is also progressing on the extension of Natura 2000 network to marine areas and the Commission has announced the launch of an EU plan to reduce IUU fishing which will be adopted before the end of 2007.
- One third of the total budget for research in the field of fisheries and aquaculture under the European Framework Programme of Research is devoted to study the interactions between fisheries and the environment and to develop mitigation measures.
- Environmental data will be collected under the renewed data collection Regulation as from 2009.

The Commission is undertaking a health check of the **CAP reforms**, due to take place in 2008, a number of political decisions are possible which would greatly simplify the CAP. The health check will include a debate about the future of a number of measures which add to the complexity of the CAP for both farmers and administrations. The reforms agreed since 2003 are already channelling around 90% of direct payments to farmers into the so-called single payment scheme. This simple system replaces the complex web of individual production-linked subsidies. Further decoupling of aid from production would do much to simplify the policy.

The new **European Fisheries Fund (2007-2013)** will support the implementation of the reformed CFP and promote sustainable fisheries. In March 2007 the Commission adopted a Communication on reducing unwanted catches and eliminating discards in European fisheries. It involves the adoption of a progressive fishery-by-fishery discard ban. At the end of February 2007 the Commission adopted a Communication to launch a debate on existing access and use rights regimes in the Member States, which will improve the economic performance of fisheries and potentially reduce the race for the fish and to reduce overcapacity.

⁵⁵ http://ec.europa.eu/fisheries/cfp/2002_reform_en.htm

To revert soil degradation across the EU, in September 2006 the Commission adopted a **Soil Thematic Strategy**, containing a proposal for a Soil Framework Directive. The strategy sets the frame and establishes a ten-year work programme for the Commission. The legislative proposal lays down common principles, objectives and actions. It will require Member States to adopt a systematic approach to identifying and combating soil degradation, tackling precautionary measures and integrating soils protection into other policies. It will allow for flexibility, as the Member States decide the level of ambition, specific targets and measures to be reached.

In addition, various documents have been agreed with respect to this objective, including:

- Political agreement reached in the Council on the future **Marine Strategy Directive**, which will allow the EU to restore the ecological health of its oceans and seas.
- Proposals for use of alien species in aquaculture and community rules for organic aquaculture and seaweed production.
- In 2006 the Commission adopted a Green Paper on a Future Maritime Policy for the European Union.

In addition, improvements of the welfare conditions for farm animals can contribute to a better management of natural resources, in particular by favouring less intensive forms of agriculture.

Objective 4 - Biodiversity

Concern for biodiversity is integral to sustainable development not just because of the important intrinsic value of nature but also because it results in a decline in services, such as provision of food, re-cycling of nutrients, etc which are provided by natural systems. It is difficult to put precise monetary values on these services worldwide, but estimates suggest they are in the order of hundreds of billions of Euros per year. To complement the work of the Natura 2000 Network, in 2006, the Commission adopted a Communication on "**Halting the Loss of Biodiversity by 2010 – and Beyond**"⁵⁶. The Communication points out ways to meet the target of halting biodiversity loss and foster longer-term recovery. It sets priority objectives, targets and key supporting measures in an EU Action Plan to 2010⁵⁷ and calls for better integration of biodiversity and ecosystem services into sectoral and horizontal policies. A large-scale international biodiversity study (with a lead role of Germany and EC) is in preparation and will focus on the global economic benefit of biological diversity, the costs of the loss of biodiversity and of the failure to take protective measures versus the costs of effective conservation.

Progressing towards ecological sustainability requires not only coordinating actions between different policy sectors but also ensuring that their policy objectives are sufficient, compatible and convergent towards the critical need of ensuring the long-term stability of the ecosystems. The Commission, in consultation with Member States, has undertaken preliminary conceptual and exploratory work towards updating the spatial scope of the nature conservation policies to improve the management of integrated ecosystems.

⁵⁶ Com (2006) 216 final

⁵⁷ Sec(2006) 607

With the adoption of the **Mediterranean list of protected areas**, the EU reached during 2006 a critical milestone towards the consolidation of the Natura 2000 network of protected areas in the EU-27 countries. In its present configuration, the territorial portion of the network covers an area of nearly 20% of the EU territory. This does not include the network of marine sites (currently +/- 148,000 km²), which is still under development. Work on establishment of Natura 2000 is proceeding according to schedule with adoption foreseen by the Commission of lists of sites of **Community Importance (Habitats Directive) in 2007**, adding to existing lists for EU-15 & extending for first time to EU-10 - updated lists for Atlantic, Continental and Boreal Regions and first list for Pannonian Region were approved in June 2007, adding 4251 sites with a total surface area of approximately 90,000 km² (about the size of Portugal). Data on designation of Natura 2000 sites can be found in the regularly updated N2000 Barometer⁵⁸.

Completing the adoption of the lists of protected areas of all biogeographical regions is a significant developmental achievement because it permits concentrating the action into the next stage of the implementation, which is the definition of specific management strategies. Most Member States are now entering in the crucial phase of managing the Natura 2000 network, which includes the adoption of management plans and important investments to be made for the implementation of management, compensation and restoration measures. This will imply important financial needs, which are to be shared between the Member States and the Community budget. During the negotiations of the Cohesion Policy programmes for 2007-2013 the Commission has strongly encouraged Member States' authorities responsible for programme implementation to use available funds for this purpose.

Objective 5 - Forests

In 2006, the Commission adopted an **EU Forest Action Plan** to support and enhance sustainable forest management and the multifunctional role of forests, including through biodiversity measures and a **European Forest Monitoring system**. The Action Plan focuses on four main objectives: to improve long-term competitiveness; to improve and protect the environment; to contribute to the quality of life; and to foster coordination and communication. Eighteen key actions are proposed by the Commission to be implemented jointly with the Member States during the period of five years (2007–2011).

The Forest Law Enforcement, Governance and Trade (FLEGT) Initiative relates to the EU's target of halting deforestation within two to three decades, and is directly associated with the sustainable development commitments that the EU has made as part of the Millennium Development Goals (MDGs) and the Johannesburg Plan of Implementation (JPOI). The FLEGT initiative works in support of third countries to combat illegal logging and the trade in illegally logged timber, which is a major problem for many timber-producing countries in the developing world.

The **FLEGT Action Plan** blends measures in producer and consumer countries to facilitate trade in legal timber, and eliminate illegal timber from trade with the EU. In December 2005, Council agreed a Regulation for a FLEGT licensing scheme and the mandate for negotiation of partnership agreements. One of the cornerstones of the FLEGT Action Plan, are **Voluntary Partnership Agreements (VPA)** with producer countries suffering from problems of illegal logging and poor forest governance. These aim to ensure that stakeholders in the country have

⁵⁸ http://ec.europa.eu/environment/nature/nature_conservation/useful_info/barometer/barometer.htm

a good understanding of the aims of a VPA and the mechanisms for its implementation. It also helps the EU gain an understanding of forest sector issues in the country that need to be addressed in designing a VPA. Ghana, Indonesia and Malaysia have now entered into formal negotiations (March 2007).

Objective 6 - Waste and Life-Cycle Analysis.

The Commission adopted a **Thematic Strategy on Waste Prevention and Recycling** to become a "European recycling society". This strategy is the first concrete example of the application of the life-cycle approach proposed in the EU Thematic Strategy for the sustainable use of natural resources. Key elements of the Strategy are embodied in the Commission proposal for a revised Directive on waste, notably the life-cycle approach and proposals to put waste prevention policies into effect and work towards common recycling standards. The proposal is currently being discussed in Council and Parliament. Further measures to implement the Strategy are a Communication on industrial by-products and waste, the preparation of criteria for when specific waste flows are recycled and stop being waste, and improvement of the knowledge base. In addition, hazardous substances bans and waste management legislation are being implemented, simplified and continuously adapted to scientific and technical progress (eg electronic goods, end-of-life vehicles, batteries and accumulators, packaging materials). Controls on exports of hazardous waste are being improved under the new **Waste Shipment Regulation**.

5.4. Member State Actions

Most Member States have made some progress towards this theme and implemented various objectives, which reflect their different priority areas. For this particular theme, there has been a lot of focus on bio-diversity and forestry, but some objectives such as resource efficiency and competitive advantage have been largely ignored.

In addition, it should be noted that Member States objectives, monitoring and reporting should be improved to allow better analysis with the European Strategy. Policy responses seem to be restricted to the easiest and/or most convenient intervention areas for the individual Member State rather than tackling potentially difficult areas. Costly investments may be seen by Member States as a good practice, but they may not be the most efficient way to make sustainability practical. In addition, some Member States see sustainability actions as tax raising measures rather than pure environmental measures.

Objective 1 - Improving Resource Efficiency

Improving resource efficiency is an important EU SDS goal, addressed by Member States for economic, environmental and security-related reasons. As over 50% of manufacturing costs relate to materials, energy and raw materials, improving energy and resource efficiency is crucial for competitiveness and fosters innovation. Some Member States actions include Raw Materials Strategies/Action Plans (eg DE, AT) which include improvements to materials efficiency in SMEs, efficiency gains thanks to increased use of information and communications technology, innovative multiple use of renewable raw materials, funding a research programme to improve resource efficiency and more transparency regarding developments in the commodities markets of developing countries.

Objective 2 - Gaining and Maintaining Competitive Advantage...Eco-Efficient Innovations

Some states have stimulated the use of environment technologies with improved legislation (eg DE), voluntary business schemes (eg CZ) and business awards (eg IT). Others have made investments in initiatives to strengthen SME R&D (eg AT, UK).

Objective 3 - Management and Avoiding Overexploitation

Some Member States have developed new rural development programmes for 2007-2013. As an example, Austria's comprehensive programme consists of three pillars: "Programme for Alpine Farmers" (compensation payments to farmers for nature-related disadvantages), the "Environmental Programme" (agro-environmental measures) and the "Investment Initiative", supplemented by the "Regional Initiative". Measures include compensation payments, investment assistance for organic farms, for processing, marketing and for guidance and public relations.

In the area of fishery, some recent examples of efforts undertaken include the recovery plans for several fish stocks, catch and fishing effort limitations, legislation to protect habitats such as deep-water coral reefs, the Mediterranean Regulation, which contains important provisions to reduce the impact of fishing on the seabed and legislation on fishing opportunities for certain deep-sea fish stocks (eg IE, IT, SE). Legislation has also been adopted on the use of electronic logbooks by skippers and vessel remote sensing, which will play an important role in tackling illegal fishing practices and will make a significant contribution to achieving sustainable fisheries. More stocks are now under long-term plans, with effort management being introduced in long term management plan as a complementary conservation tool. Some Member States have made significant improvements in their control and enforcement systems.

Many Member States report on their efforts aimed at improving water management, and in particular on the implementation of the Water Framework Directive (eg IT, UK). Pursuant to this directive, water management is moving toward a more basin-based approach. Member States have developed river basin management plans, which will address water quality issues as well as co-ordinate responses to pressures (on both water quality and water resources) from the various stakeholders. The approach to water management is no longer limited to reducing nitrate discharges, but also covering reducing phosphorus discharges and enhancing nature protection. A particular approach to the water management has been reported in case of the Netherlands. The challenge is to manage water, in combination with integrated coastal zone management, in a quantitative manner, both to retain water longer for specific functions, and to create more flood plains for periods of severe rainfall or increased water flow from upstream. The Netherlands aim also to be back at the international top regarding innovative delta technology.

Member States report on their efforts to combat water pollution. Water pollution from household, industrial and agricultural sources, is a major environmental challenge especially for new and southern Member States. Thanks to substantial investment in wastewater infrastructure in recent years and better controls, the degree of water treatment gradually improves. Nevertheless, substantial efforts are needed. According to Eurostat data, in 8 Member States the share of population connected to waste-water treatment was below 40%.

Objective 4 - Biodiversity

Many Member States report on adoption or implementation of a national biodiversity strategy (eg BE, UK). The strategies usually take into account the EU policy target to halt the loss of biodiversity by 2010 and beyond. They also aim at meeting the main objectives of the 1992 Convention on Biological Diversity. As an example, the recent French strategy is aimed at maintaining the genetic diversity of species and habitats and the proper functioning of ecosystems and includes concrete measures and indicators to monitor progress. It led to 10 sector or territory based action plans (natural heritage, agriculture, sea, forestry, overseas, urban planning, projects and territories, transport infrastructure, international and research). The Finnish strategy and the action programme include 110 concrete proposals for action to implement the EU SDS, including long-term adaptation programmes for changes to nature caused by climate change, developing economic incentives, finding opportunities related to economy and employment, awareness raising and increasing multi-disciplinary research. In UK, a multi-stakeholder platform has been set up to support monitoring and implementation of the national biodiversity strategy and action plan. Regional and local strategies and action plans have been supported to ensure implementation.

With regard to selection of areas for Natura 2000 sites, many Member States report that they have completed the network or are close to it (eg PT, RO). In some Member States Natura 2000 sites cover a substantial share of country's territory (35% in Slovenia). Progress is ongoing on the extension of a nature directives-type of approach for valued sites and species in EU outermost regions and overseas territories - creation of new national parks (eg FR)) and nature reserves, including marine reserves (eg SE). Nevertheless, in some cases Member State reports do not give a full picture of the situation. The index of sufficiency of sites designated under the Habitats Directives had reached only 82% in EU-25 in 2006, with two Member States (eg PL, CY) indices below 25%. Concerns are expressed regarding poor uptake of funding opportunities in different Member States for management of Natura 2000 sites, but it is relatively early to assess this.

Objective 5 - Forests

Member States undertook many initiatives aimed at delivering sustainable forest management. They include such actions as certification of forests for sustainability (eg FR); support to private forest owners in accordance with the Act on the Financing of Sustainable Forestry (eg FI); preparing national inventory of forests (eg IT). The UK has prepared a forestry strategy for an economically viable forestry sector that can deliver a wide range of public benefits, focusing on woodlands having a role to play in adapting our ecosystems to climate change.

In the southern Member States prevention and protection against forest fires is of special importance for forest management. Portugal adopted a National Forest Fire Prevention Plan, including measures in five areas: increasing the resilience of the country to forest fires; reducing the incidence of fires; improving the effectiveness of fire fighting and fire management; recovering and rehabilitating the ecosystems; developing an effective structure and functionality. In addition, a National Forest Fire Protection System, covers actions by civil defence in the areas of raising awareness, planning, forest conservation and management, infrastructure development, forest surveillance, fire detection, combat and damping-down, post-fire surveillance and inspection.

Internationally, Member States are committed to supporting and implementing the European Union's FLEGT initiative and promote management of tropical forests, in order to contribute effectively to achieving the four United Nations global objectives on forests by 2015.

Objective 6 - Waste and Life-Cycle Analysis

Member States adopted and implemented national strategies and action plans for waste management. The priorities of the strategies include creating more effective incentives for individuals and businesses to recycle and compost waste, a greater responsibility on businesses for the environmental impact of their products and operations, development of special waste circuits for harmful waste (tyres, electrical and electronic equipment, etc), avoidance and recycling of building materials waste, promotion of disposable packaging. In waste management objectives in new Member States include such targets as handling 100% of waste according to internationally accepted environmental and health-protection standards and of closing or adapting landfills not meeting environmental standards (eg EE). Italy reported on actions undertaken in order to solve the crisis situation in urban waste disposal and to strengthen environmental infrastructure for the disposal, treatment and recycling of waste.

National strategies include targets such as at least 40% of household waste recycled or composted by 2010 (UK), reduction of the quantity of household waste sent for storage to 250 kg per year per inhabitant by 2010 and then to 200kg/yr/inhabitant by 2015 (eg FR). Examples of economic instruments in waste management include an increase in the landfill tax by £8 per year from 2008 until 2010/11 (UK).

Member States report on numerous waste avoidance and recycling projects implemented by the industrial sector, the public administration and the field of science. Examples from Austria include the eco-drive project (collecting used culinary oil from tourism enterprises in Graz for the purpose of converting it into fuel for the diesel engines of 50 buses from the Graz transport services) and a Repair and Service Centre as a cheap option for repairing electrical appliances or for disposing of them professionally. In Italy, a law established Recycling Index containing the list of recycled material and that of manufactured products and goods made with recycled material, indicating the offer, its availability and the fairness of the price.

5.5. Conclusions

According to Eurostat data pressures on natural resources remain of concern: previous declining trends seem to be stabilising, but there are not yet any signs of clear recovery. For some indicators, assessment at EU level is not possible due to insufficient geographical or time coverage. In spite of this, progress on effort has been made in many of the objectives relating to this theme, by both the EU and Member States, including a measured increase in resource efficiency, eco-innovations and increased recycling, although it is intrinsically difficult to quantify progress as limited baseline measurements are available.

This key challenge overlaps partially with sustainable consumption and production, regarding non-renewable resources. In addition, the modest or no real progress message given by the two headline indicators on common birds and fish catches is reinforced by the fairly stable level of municipal waste generated, and the slow decrease in resource use. The objective on renewable resources is fairly general, and difficult to measure at EU level with currently available statistics. Recent trends in forest management could not be adequately assessed because forthcoming data is not yet available.

Priority actions for fisheries in the next few years will be to continue to implement and consolidate the reformed CFP and full implementation of the tools and instruments that the new regulatory framework provides for, especially Framework Regulation (EC) No

2371/2002 on the conservation and sustainable exploitation of fisheries resources under the CFP. According to this Regulation, the objective of the CFP should be to provide for sustainable exploitation of living aquatic resources and of aquaculture in the context of sustainable development, taking account of the environmental, economic and social aspects in a balanced manner.

Overall the EU policy framework for biodiversity in this sector is largely in place. The EU thematic strategies on the sustainable use of natural resources and on waste prevention and recycling have been prepared and are implemented. However, biodiversity loss continues at an unprecedented rate, with two thirds of the world's ecosystems in decline. Significant efforts are required to meet the targets of halting biodiversity loss in the EU by 2010 as well as significantly reducing the rate of biodiversity loss worldwide by 2010. The Commission and the Member States need to further strengthen the integration of biodiversity and ecosystem services considerations and targets into policies and programmes in all relevant sectors. While there has been progress in establishing Natura 2000 network of protected areas, Member States should complete the network both on land and at sea, prepare management of the protected areas and ensure adequate financing of the network.

Ill-considered land use and development constitute a particular threat to nature and biodiversity preservation as they cause habitat fragmentation, degradation and destruction. Member States have particular responsibility, through improved planning, to reconcile land use and development needs with the conservation of biodiversity and maintenance of ecosystem services. Member States made many efforts aimed at improving management and avoid overexploitation of renewable natural resources, in particular in areas of agriculture, forestry, fisheries, promoting biodiversity, water management and waste management.

6. PUBLIC HEALTH

6.1. Objectives

Overall Objective: To promote good public health on equal conditions and improve protection against health threats.

- Improve protection against health threats by developing capacity to respond to them in a co-ordinated manner.
- Further improve food and feed legislation, including review of food labelling.
- Continue to promote high animal health and welfare standards in the EU and Internationally.
- Curb the increase in lifestyle-related and chronic diseases, particularly among socio economically disadvantaged groups and areas.
- Reduce health inequalities within and between Member States by addressing the wider determinants of health and appropriate health promotion and disease prevention strategies. Actions should take into account international cooperation in fora like WHO, the Council of Europe, OECD and UNESCO.
- Ensure that by 2020 chemicals, including pesticides, are produced, handled and used in ways that do not pose significant threats to human health and the environment. In this

context, the rapid adoption of the Regulation for the registration, evaluation, authorisation and restriction of chemicals (REACH) will be a milestone, the aim being to eventually replace substances of very high concern by suitable alternative substances or technologies.

- Improve information on environmental pollution and adverse health impacts.
- Improving mental health and tackling suicide risks.

Refer to the 2006 Strategy for specific actions.

6.2. State of Play

Eurostat reports that the expectancy of healthy life-years, at birth and at age 65, continues to increase slowly, albeit at a faster rate than life expectancy. As a result, people are not only living longer, but they are living a greater part of their lives uninflicted by serious health problems. Other positive signals are that fewer people are dying from chronic diseases. The salmonellosis rate has fallen sharply across the EU, by nearly 7% per year since 2000. There is also a continuous reduction in the incidence of serious accidents at work.

On a less positive note obesity and smoking is becoming an increasing problem. Depending on the country, between 30 and 64% of young males aged between 25 and 34 were overweight or obese in 2003 and between 12 and 47% of young women. In this age group the proportion of overweight males is higher in all EU countries than that of overweight females. It seems that both sexes, and especially women, have a tendency to put on weight as they grow older. The proportion of over-65s who are overweight or obese is considerably higher, ranging from 62 to 80%. Obesity and overweight are risk factors chronic conditions such as Type 2 diabetes, cardiovascular diseases, certain forms of cancer as well as greater ill health due to back pain and depression. This is costing the EU both in terms of the human trauma of ill health and death, and in economic terms in its impact on current and future health care costs and productivity. Estimates of direct costs of obesity alone in the EU in the 1990s ranged from 1% of health care expenditure in the Netherlands and up to 3.1-4.2% in Germany, and 6% in Belgium.

Gender differences are also apparent in smoking patterns. Although about 30% of all adults across the EU smoked either daily or occasionally in 2003, this comprised 37% of males, compared with 24% of females. Of the EU population 26% were regular smokers in 2003, comprising 32% of males and 21% of females⁵⁹.

Concerning health inequalities, typical differences in life expectancy at birth between social groups range from 4-6 years among men to 2-4 years among women. In some countries, these differences are considerably higher (10 years) and in many countries the gap appears to have widened over the last 3 decades. Most of the Member States which joined the EU since May 2004 have significantly higher levels of health inequality than those states which were members before May 2004.

There are no discernible improvements in the exposure of the population to airborne pollution by particulate matter. In the case of ozone, although the change between 2000 and 2004 has been evaluated as unfavourable, the change relative to 1999 or 2001 would appear favourable. A clearly unfavourable trend is that the production of toxic chemicals continued to increase at

⁵⁹ Eurostat 2007 Monitoring report and Commission DG sources as well as international sources including WHO

approximately 1.3% per year on average between 2000 and 2005, even if this is at a slower rate than in the previous period when it grew by 3% per year. This is tempered by the fact that there has been a shift away from the two most dangerous classes of toxic chemicals towards less harmful toxic chemicals.

In terms of mental health the suicide rate decreased on average by 2.2% per year in the EU-27, and 0.7% in the EU-15 during the same period. However the WHO predicts that depression will rank second in leading global disease burden by 2020 next to heart disease. Some 11.5% of Europeans suffer from a mental disorder every year and mental illness has become Europe's "unseen killer", contributing to some 60,000 suicides a year. The number of Europeans who die from suicide each year now exceeds those killed in transport accidents, and is ten times higher than the number of deaths from the consequences of HIV/AIDS. Mental health problems currently cost the EU at least 3-4% of its GDP. The biggest cost factor is lost productivity. The share of work absenteeism because of mental health problems is growing and accounts between 30% and 40% of absenteeism in some countries. Mental health problems account for 25% of disability in the EU. People from socially disadvantaged groups face considerably higher rates of mental health problems. This trend can already be observed in children and teenagers.

There are some positive developments for public health, even if in some cases, this will only show over the longer term. However, as only a few aspects of the policy objectives are measurable, it is difficult to conclude that the trend is improving and other evidence does indeed seem to show a worsening in the situation for many issues.

Progress towards objectives related to capacity to respond to health inequalities, health threats, food labelling, animal welfare, and information on environmental pollution are not assessed by Eurostat using specific SDIs due to current lack of appropriate statistics.

6.3. Key EU Policies

Most of the progress made on this theme in the last few years has been on implementation of existing policies and recently on preparing new initiatives for adoption in 2007 and 2008.

Objective 1 - Health Threats

The European Centre for Disease Prevention and Control was established in 2005 to combat communicable diseases and general work is progressing in this area. Specific initiatives include implementation of the HIV/AIDS policy and **action plan on combating HIV/AIDS** within the European Union and in the neighbouring countries 2006-2009 (COM(2005) 654) where most of the projects funded under the HIV/AIDS programme have dealt with the needs of vulnerable populations. This includes, for example, working with youth; forming partnership between private, civil society and governmental groups on safe sex and promoting drug prevention measures. The EU has also actively cooperated with neighbouring countries (Moldova, Russia and Ukraine) through the work of the European HIV/AIDS Government expert group. However, more progress is still needed on HIV/AIDS and also on other communicable diseases such as Tuberculosis where a new action plan is to be prepared by the ECDC (European Centre for Disease Control) by end of 2007. The EU agency European Centre for Disease Prevention and Control has worked on enhancing epidemiological surveillance in order to combat communicable diseases, including a new action plan on Tuberculosis in 2007.

Objective 2 - Food and Feed Legislation, including Review of Food Labelling

Following a consultation on labelling in spring 2006, the Commission is reviewing the options for general food and nutrition labelling. Issues being considered include whether origin labelling should be mandatory, the number of nutrients that should be included on the label, and how to provide nutritional information to the consumers.

Currently, the circulation of feed materials and compound feed is regulated by four main Council Directives and some 50 amending or implementing acts. Following the crisis concerning human food and animal feed (BSE, dioxin, etc.), the structure and content of this legislation became subject to a serious review.

The result is a modernisation and simplification package in which several policy fields will be covered by a single Regulation that will:

- Place responsibility on the feed business operator to ensure feed safety and on the negative list which records the prohibited or restricted feed materials to establish a proportionate approach for the legislator in his function as risk manager;
- Set quality-relevant marketing conditions for self-regulation by stakeholders;
- Improve market transparency to ensure that more feed materials will be better identified in particular with respect to emerging feed materials;
- Remove administrative burden, particularly with respect to the authorisation procedure for the current category "bio-proteins";

- Increase the competitiveness of the EU-feed business by doing away with the mandatory percentage declaration of feed materials in compound feed; and
- Improve the appropriateness of pet food labels so that they are understood by the average pet owner.

The Regulation is scheduled for adoption by the College on 6 November 2007.

The key directive with regard to **genetically modified organisms** (GMOs) is Directive 2001/18/EC on the deliberate release of GMOs into the environment. This Directive introduced stringent principles for the environmental risk assessment, monitoring requirements, the obligation for companies to report on the potential post-release effects of GMOs on the environment and human health and the obligation for registration of all locations where GMOs are cultivated. Furthermore, the Directive foresees a transparent authorisation procedure for each GMO, where the Competent Authorities of all Member States are involved. Under this provision, six GMOs have been authorised for placing on the market by Commission Decisions (for uses such as import and processing, however not for cultivation). All these Decisions foresee measures for the identification, labelling, traceability, handling and monitoring of GMOs. These provisions ensure informed choices for operators and consumers and the highest possible protection of the environment and human and animal health.

Objective 3 - Animal Welfare

In the area of Animal Health, the Commission is about to present a new **EU Animal Health Strategy for the period 2007-13**. The new strategy is built on the principle that "prevention is better than cure". Together with the implementation of the Community Action Plan on the Protection and Welfare of Animals 2006-2010 adopted in 2006, this sets out some challenging aims, not just for the EU institutions and Governments, but for all citizens, to improve animal health and welfare. One of the goals of the Commission is to promote farming practices and animal welfare which prevent animal health related threats and minimise environmental impacts in support of the EU Sustainable Development Strategy.

It also aims to establish a clearer regulatory structure for animal health in the EU and will draw together all aspects of this policy area under a single legal heading. This includes the control of animal diseases, identification, nutrition, welfare, trade and imports. Work has already started and many important pieces of legislation have recently been updated (e.g. the Foot and Mouth and Avian Influenza Directives, Aquaculture rules). Under the new policy, legislation will be upgraded or developed in a more strategic and coherent manner, converging as far as possible with international standards and drawing strongly on scientific advice.

The Commission works to promote high animal health and welfare standards internationally, mainly through its activity with the OIE (World Organisation for Animal Health) and the other concerned international organisations, FAO (Food and Agriculture Organisation) and WHO (World Health Organisation).

Objective 4 - Lifestyle-Related and Chronic Diseases

The Commission has taken several steps to counter this trend: It has set up a 32 member expert group '**The European Platform on Diet, Physical Activity and Health**' committed to identifying measures which can reduce obesity. It has further established a new Network on Nutrition and Physical Activity. It has consulted on the **Green Paper "Promoting healthy diets and physical activity: a European dimension for the prevention of overweight, obesity and chronic diseases"** which has been followed by a White Paper on 'A strategy for Europe on Nutrition, overweight and obesity related health issues' adopted May 2007. It has further ensured adoption of various regulatory measures such as adoption of the nutrition and health claims regulation and a revision of the nutrition labelling regulation.

To support macro level monitoring, the European Commission has developed a **European Health Interview Survey (EHIS)** which will become operational in 2007. It will put in place a harmonised approach to the regular collection through the **European Statistical System (ESS)** of statistical data on self-reported height and weight, performance of physical activity and frequency of consumption of fruits and vegetables.

The Commission participates in the development of the European Charter on counteracting obesity.

Objective 5 - Reducing Health Inequalities

Since 2005 work has been ongoing in the Commission expert group on social determinants and health inequalities. Its task is to share information and good practice between Member States and provide input to EU policy development.

The Commission will present a new general **Health Strategy** which will deal with issues such as how to foster good health in an Ageing Europe, how to protect Citizens from Health Threats and how to develop dynamic Health Systems and New Technologies. In addition, the Commission proposes a Community framework for safe, high-quality and efficient cross-border healthcare.

National institutes of health promotion from EU and EEA Member States have been collaborating in an EU supported project 'Closing the Gap' to support the development of good practice in tackling health inequalities. It has also produced guidelines for good practice, a collection of case studies and a description of national policies which are available from its web site.

Objective 6 - Chemicals and Pesticides

In 2006, the Council adopted the milestone **Regulation for the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)**. In 2006, the Commission adopted the Thematic Strategy on the Sustainable use of Pesticides, accompanied by a proposal for a framework Directive. The objective of both is to reduce the risks to human health and the environment from the use of pesticides. The main measures proposed include Member State National Action Plans, awareness-raising of general public and training for all professional pesticides users (mainly farmers) as well as a general ban of aerial spraying. Under the Mercury Strategy, the Commission adopted proposals for a Directive⁶⁰ restricting the use of

⁶⁰ COM(2006) 69

mercury in certain devices and for a Regulation⁶¹ on the banning of exports from the EU and safe storage of mercury.

Objective 7 - Information on Environmental Pollution

In 2003, the Commission adopted the **European Environment and Health Strategy**⁶². This Strategy had the ultimate objectives of reducing the disease burden caused by environmental factors in the EU, identifying and preventing new health threats caused by environmental factors and to strengthen EU capacity for policymaking in this area. The Strategy was followed up by the European Environment and Health Action Plan 2004-2010⁶³ (the Action Plan), which emphasises the need to develop a good information base, and a coordinated approach to human bio monitoring as well as the need to strengthen the assessment of the environmental impact on human health. Both the Strategy and the Action Plan got the support from the other institutions of the European Union⁶⁴. The efforts under the ENHIS (Environment and Health Information System) project to gather information also links up to the health effects of climate change. In June 2007, the Commission adopted the midterm review on the Action Plan which concludes that a significant achievement of the plan is already visible in the strengthened cooperation between the environment, health and research fields both at Community and Member States level. The Commission will now gradually step up its effort to exploit the outcomes of research projects and other information gathering efforts and consider how effectively to translate these into policy action. In 2010, at the end of the first cycle, the Commission will identify the specific elements to be addressed for the next cycle.

On children and health, the Commission supports the work of the Children's Environment and Health Action Plan for Europe (CEHAPE) under WHO and it is a member of the WHO/EEHC (European Environmental Health Committee). Furthermore, a Youth meeting has been co-organised with the WHO in order to contribute to the preparation of the mid-term review of the WHO intergovernmental conference, which will be held in June 2007

Every year 370,000 people in Europe die prematurely from diseases linked to air pollution. The Commission is therefore preparing to **revise the National Emission Ceilings Directive**, setting ceilings to apply from 2020 for the four substances already regulated, and possibly for primary emissions of PM2.5 too. In 2006 negotiations continued with Council and Parliament on the proposed **Air Quality Framework Directive**.

On indoor air, the Commission has asked the **Scientific Committee on Health and environmental Risks** (SCHER) its opinion to help prepare a policy initiative on indoor air quality. In particular, the Committee has been asked to take into account potentially vulnerable groups of population such as children, pregnant women and the elderly.

⁶¹ COM(2006) 636

⁶² Communication from the Commission on the European Environment and Health Strategy (COM(2003)338 final)

⁶³ Communication from the Commission on the European Environment and Health Action Plan 2004-2010 (COM(2004)416 final)

⁶⁴ Council Conclusions on the Strategy, European Parliament Resolutions on the Strategy and on the Action Plan, European Economic and Social Committee Opinion on the Action Plan. Moreover, the Dutch and Luxembourg presidencies of the Council organised international conferences on the implementation of the Action Plan, in December 2004 and June 2005 respectively.

Objective 8 - Mental Health

The Commission **Green Paper on Mental Health** of September 2005 was used to inspire a wide public debate and consultation on mental health. September 2006, the European Parliament adopted a Resolution on the need to improve mental health and the European Economic and Social Committee (EESC) gave its opinion May 2006. On the basis of the December summary report on the consultation, the Commission is now developing a policy initiative setting out a strategy on mental health.

6.4. Member State Actions

Over the years public health has increased in significance. It has strong links with both environmental and social objectives – as well as economic themes. These links are becoming increasingly clearer. The following lists examples of Member State's work in progress on the EU SDS objectives for Public Health.

Objective 1 - Improving Protection against Health Threats

In several Member States, much attention is being placed on the preparedness for influenza epidemics and pandemic preparedness (eg AT, FI, HU, IT, LU, SI, and SE). From other sources, it appears that only two Member States of the EU25 lack such a preparedness plan⁶⁵. Countries have also reported on measures to combat and prevent HIV/AIDS (eg BU, ES, HU, LU, RO, SE). Spain refers to actions to combat HIV/AIDS, malaria and tuberculosis in Africa and Latin America. Also, Ireland participates in an international working group on HIV/AIDS, malaria and tuberculosis. In some new Member States, there is a continuous need to focus on tuberculosis (eg BU, EE, LT, and RO). The following countries have provided very limited information on this objective Czech Republic, Denmark, France, Germany, Greece, Latvia, Netherlands, Poland, Slovakia, and the UK.

Objective 2 - Further Improving of Food and Feed Legislation

After a number of turbulent years (2002-2004), most Member States prefer to focus on the implementation of earlier policy initiatives, such as current mandatory food labelling requirements and plan to introduce legislation on the legibility of labels at a later point.⁶⁶. New initiatives have been recorded, for example in the UK, where a food industry sustainability strategy was taken forward. With regard to feed legislation, three Member States reported on specific actions: Greece has implemented a Ministerial Decree regarding undesirable substances in animal nutrition; Malta introduced animal feed rules in 2005; while Slovenia introduced the Animal Feed Act in 2006.

Objective 3 - Promote Animal Health and Welfare Standards

Based on the reports, animal welfare is a concern for less than half the Member States. Common initiatives are taken in the area of reporting, monitoring, inspection (e.g. animal movements) and vaccination. Active countries in this area are Austria, Belgium, Greece, Italy,

⁶⁵ National pandemic influenza plans currently available on the Internet: http://www.ecdc.eu.int/Influenza/National_Influenza_Pandemic_Plans.php

⁶⁶ Tiessen J, Rabinovich L, Tsang F, Van Stolk C(2007). Impact assessment of the revision of EU horizontal food labeling legislation. DRR-4552-EC. Santa Monica: RAND.

and the UK. Sweden reports on its participation in EU animal health policy, while various new Member States (eg EE, MT, SI) are implementing legislation in this area as well.

Objectives 4 - Lifestyle-Related and Chronic Diseases

Curbing the increase in lifestyle related diseases is a key concern to most Member States. In the field of physical activity and nutrition, EU Member States recently stated that "visible progress, especially relating to children and adolescents, should be achievable in most countries in the next 4-5 years and it should be possible to reverse the trend by 2015 at the latest"⁶⁷. In addition, combating alcohol-related harm is a high priority for the Member States which agree that a joint alcohol strategy at Community level is needed next to national strategies⁶⁸.

An increasing number of key initiatives to combat obesity and malnutrition mentioned in the progress reports focus on awareness and educational programmes targeted at children, schools and local communities (eg AT, BE, EE, FR, HU, IT, LT, and ES). The UK goes one step further by establishing regional public health groups that address health determinants within their region – including socio-economic drivers. Target groups are also used for ongoing initiatives against smoking and (illegal) drugs, where legislative proposals play a more important role – eg to restrict smoking in public spaces (eg BE, IE, LU, MT, SI, and ES). Cardiovascular disease (CVD) and cancer are also mentioned as lifestyle-related diseases. Explicit links to national cancer strategies and action plans are made in Cyprus, Estonia, Hungary, and Luxembourg.

Objective 5 - Reducing Health Inequalities within and Between Member States

Member States have not reported widely on this objective. Clearly, inequalities between Member States are more of an EU than a national concern. Issues mentioned in this respect are universal access to health insurance (eg EE, EL, and MT) and health care reform (eg HU). Vulnerable groups that deserve policy attention include HIV patients (eg EI, IT), minorities (eg SK) and disadvantaged socio-economic groups overall (eg FI, ES and UK).

Objective 6 - Ensure that Chemicals are handled in a Safe Way By 2020

In 2004, at the Fourth Ministerial Conference on Environment and Health, Member States made commitments to reduce exposure to environmental health hazards. The WHO has collected information about how Member States have been doing since then⁶⁹. Clearly, Member States consider this objective important and report on progress, but most activities undertaken are in the area of monitoring (observatory), registration, provision of information to industry, and regulation of chemicals – often in the context of REACH. The actions to reduce the use of chemicals and pesticides (eg BE, FI) go one step further.

Objective 7 - Improving Information on Pollution

⁶⁷ Commission of the European Communities (2007). A strategy for Europe on nutrition, overweight and obesity related health issues. COM(2007) 279 final. SEC(2007) 706/2.

⁶⁸ http://ec.europa.eu/health/ph_determinants/life_style/alcohol/alcohol_en.htm.

⁶⁹ http://www.euro.who.int/ehc/implementation/20050601_10

A range of awareness actions in this area is taken, such as improvement of websites, and programmes to reduce exposure of children to chemicals (eg SK, SE). Progress has been made in the monitoring of air quality, such as the ozone alarm in Belgium, Air Quality Index in Hungary, and the Air Quality Strategy in the UK.

Objective 8 - Improving Mental Health and Tackling Suicide Risks

Specific actions related to mental health are action plans or national programmes to prevent suicide (eg BE, BG, FR, ELK, HU, IT, LU, MT, RO, SI, SE, UK). Reported suicide risks vary strongly between Member States and there is no clear evidence from the reports that there is always a direct relation with key policy initiatives to respond to these. Nordic/Baltic countries (other than Sweden) appear to fall somewhat behind in this respect.

6.5. Conclusions

There are certain positive developments for Public Health, most notably an increase in the expectancy of healthy life-years. However, other statistics are worsening and although many policy initiatives have been taken to address the Public Health objectives of the Strategy, there is still too little measurable impact on the ground.

There has been satisfactory progress in terms of EU policy development: An action plan to combat HIV/AIDS within the European Union and in the neighbouring countries 2006-2009; a Review of the options for general food and nutrition labelling; The Commission has presented a new EU Animal Health Strategy for the period 2007- 13 and the Commission has issued a White Paper on ' A strategy for Europe on Nutrition, overweight and obesity related health issues' May 2007 and will present a new general Health Strategy .

The information collected and used by Member States on public health varies strongly. Key policy initiatives have above all been taken to curb lifestyle related diseases, pandemic preparedness, and to improve the handling of chemicals. Reported progress is more limited in areas of food and feed legislation, animal welfare, and mental health, while Member States are scarce with providing information on progress toward reducing health inequalities. Achieving good health is very much a cross cutting issue and it is necessary also to address the behavioural, social and environmental factors that determine health. This implies a need to promote health through all Community policies. At this point, only limited evidence exists of good inter-ministerial and inter-sectoral cooperation with the energy, transport, industry, agriculture, planning, education and most importantly the finance ministries – all needed to ensure a coherent, well-funded and consistent strategy that can achieve significant health improvements.

In general, the EU and Member States need to consider further policy development and implementation that will help curb the current increase in lifestyle related diseases, environmental pollution and health problems related to the increased production of toxic chemicals and air born pollution. The persistent health inequalities in Europe warrants further consideration both at EU level and by Member States. Finally mental health remains a concern. In spite of slightly improved figures for suicide rates, there is an increase in the incidence of other mental health type problems that need to be addressed.

7. SOCIAL INCLUSION, DEMOGRAPHY AND MIGRATION

7.1. Objectives

Overall Objective: To create a socially inclusive society by taking into account solidarity between and within generations and to secure and increase the quality of life of citizens as a precondition for lasting individual well-being.

- Pursue the EU objective that steps have to be taken to make a decisive impact on the reduction of the number of people at risk of poverty and social exclusion by 2010 with a special focus on the need to reduce child poverty.
- Ensure a high level of social and territorial cohesion at EU level and in the Members States as well as respect for cultural diversity.
- Support the Member States in their efforts to modernise social protection in view of demographic changes.
- Significantly increase the labour market participation of women and older workers according to set targets, as well as increasing employment of migrants by 2010.
- Continue developing an EU migration policy, accompanied by policies to strengthen the integration of migrants and their families, taking into account also the economic dimension of migration.
- Reduce the negative effects of globalisation on workers and their families.
- Promote increased employment of young people. Intensifying efforts to reduce early school leaving to 10% and to ensure that at least 85% of 22 year olds should have completed upper secondary education. By the end of 2007 every young person who has left school and is unemployed should be offered a job, apprenticeship, additional training or other employability measure within six months and within no more than 4 months by 2010.
- Increase the labour market participation of disabled persons.

Refer to the 2006 Strategy for specific actions.

7.2. State of Play

Eurostat reports that in 2005, 16% of citizens in the EU-25 were still at risk of poverty. This means, that the EU has not yet made the decisive impact on the reduction of the number of people at risk of poverty and social exclusion required by the EU SDS by 2010. There is no separate data on child poverty.

Progress towards the objective of ensuring a high level of social and territorial cohesion can be monitored through the dispersion rates of regional GDP per inhabitant and of regional employment rates. Overall, the dispersion rate of GDP per inhabitant decreased in the EU-27, by 1.8 percentage points per year on average from 2001 to 2004. The dispersion of employment rates decreased from 13% to 11.8% in the EU-27, and from 13.4 to 10.9% in the EU-15.

The EU SDS also requires "supporting the Member States in their efforts to modernise social protection in view of demographic changes". This refers to the need to ensure adequate

protection which is financially sustainable. If the ratio between the working population and those drawing benefits falls, then both adequacy and sustainability are threatened. The main policy response is to increase labour market participation, as recognised in the following objective "to increase the labour market participation of women and older workers according to set targets by 2010". The female employment rate has grown in a positive way from 2000 to 2005. The Lisbon Strategy intermediate target of 57% of females in employment by 2005 was more than met in the EU-15, and met one year later in the EU-27. The Lisbon target of reaching 60% by 2010 appears within reach, if growth is sustained. The employment for the 55-64 year old age group was around 43.5% in 2006 in EU-27, and is still at much lower levels than the 25-54 category. Recent changes are encouraging, with an increase of 6.6 percentage points between 2000 and 2006 at EU-27, compared to 0.5 percentage points between 1997 and 2000. If this rate of growth is sustained, the target agreed in the 2001 Spring Council of raising the employment rate of older workers to 50%, is within reach. The average exit age from the labour market increased slowly from 59.9 in 2001 to 60.9 in 2005. Progress is needed at more than twice this rate to achieve the target agreed in the 2002 Spring Council that "a progressive increase of about 5 years in the effective average age at which people stop working in the European Union should be sought by 2010".

According to data published on 1 June 2007 by Eurostat, the jobless rate in the EU stood at 7.1% in April 2007 – representing nearly a full percentage point drop since last year and bringing unemployment in Europe down to its lowest level for more than 15 years. There are now around three million unfilled jobs in Europe, according to Commission figures. While the problem has traditionally been linked to low-skilled jobs, filling jobs in high-skill sectors, such as engineering, is also becoming increasingly troublesome. Labour shortage, which is severely limiting the innovation capacity of those high-tech companies leading the economic revival, is fast becoming one of the largest constraints to the continent's competitiveness. The EU has recognised the role of labour mobility and legal migration in overcoming bottlenecks on the labour market⁷⁰.

Pensions adequacy is monitored by the income replacement ratio, as well as the at-risk-of-poverty rate, while financial sustainability is measured by the government debt. Although the data currently available are insufficient to show EU trends, it is clear that aggregate incomes decline considerably in all Member States following retirement, and to less than half of pre-retirement incomes in many. The risk of poverty for the older members of the population, at 19% in 2005, exceeds the risk incurred by the total population by two or three percentage points for the EU-25. Following a period of growth of over one percentage point from 1990 to 1993, pensions expenditure in the EU-15 slightly declined until 2004 when it accounted for 12.3% of GDP. General government gross debt in the EU-25 decreased as a share of GDP by 0.7% percentage points from between 2000 to and 2006. At the end of this period it was 3-2.24 points above the 60% reference value.

Regarding the EU SDS objective related to employment of young people, and early school leaving, the unemployment rate of young people decreased between 2000 and 2006, by 0.4%, but more slowly than the overall active population (0.7 point). In 2006, 17.4% of young people were still unemployed, compared to 7.9% for the whole population. The rate of the young people aged 18-24 who leave the education system with lower secondary education at best decreased in the EU-27 from 17.6% in 2000 to 15.3% in 2006. The average rate of

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decrease since 2000 of 0.4 percentage points per year seems to slow to reach the 2010 target of 10%.

There are a number of objectives that cannot be monitored at EU level with currently available Community statistics, including increasing employment of legal migrants, reducing the negative effects of globalisation on workers and their families, and increasing the labour market participation of disabled persons.

Integration of Legal Migrants

According to official national statistics and Eurostat estimates, the total number of non-nationals⁷¹ living in the EU in 2004 was around 25 million, equivalent to just below 5.5% of the total population⁷². The net inflow of non-EU nationals to the EU has fallen in 2005 to a level of around 1.77 million people compared to 1.88 million in 2004 and integration remains a challenge in many Member States.

For all Member States (except the three Baltic States and Poland, where net migration was negative), the main driver of population increase was net migration. The latest trends confirm the importance of international migration to population change. This is highlighted in particular by the cases of the Czech Republic, Italy and Slovenia – countries that would otherwise have experienced a reduction in population.

At EU level, the labour market outcomes for non-EU nationals are substantially worse than those for EU-nationals. While their participation rate (67%) was somewhat similar to that of EU nationals (71%) in 2005, their employment rate was substantially lower (55%, compared to 65% for EU nationals). This was reflected in unemployment rates that were almost twice as high for non-EU nationals (17%) as for EU nationals (9%).

However, it is not universally the case among Member States that employment rates for non-EU nationals are below those of EU nationals. In many of the new Member States, as well as Greece, Spain and Portugal, the employment rate of non-EU nationals was above that of EU nationals in 2005.

Nevertheless, the growing diversity of European societies pose new challenges when it comes to enhancing labour and social integration of ethnically and religiously diverse communities. In most Member States labour market integration of non-EU nationals remains a significant problem, and especially so in Belgium, Denmark, Finland, the Netherlands and Sweden, where differences in employment rates compared to EU-nationals exceed 20 percentage points and there are generally strong disparities in unemployment rates. Among the latter group, the difference in employment rates is as high as 33 percentage points in the Netherlands, while Belgium has the lowest actual employment rate for non-EU nationals at only 35%. At EU level, the difference in the labour market situation of EU and non-EU nationals is even more striking for the high-skilled population, and suggests a strong under-utilisation of important human capital. The employment rate for high-skilled EU nationals (ie those having completed tertiary education) was around 83% on average in 2005, while high-skilled non-EU nationals had a much lower rate of only 67%. Differences in

⁷¹ Third country nationals as well as EU nationals living in another Member State than their own.

⁷² "Employment in Europe 2006" report, p. 71.

employment rates for the medium skilled (69% versus 63%) and the low skilled (around 46% for both groups) are much less pronounced at EU level⁷³.

Illegal Immigration

Estimates of illegal immigration flows can only be derived indirectly from relevant statistics, such as the numbers of refused entries, of illegal immigrants apprehended at the border or in a Member State, of applications for national regularisation procedures and of removals. A further useful indicator is given by the considerable number of those who enter legally and then “overstay”. From these indicators, estimates of annual inflows of illegal immigration into the EU-25 are thought to reach over six figures⁷⁴.

Regarding the EU SDS objective related to employment of young people, and early school leaving, the unemployment rate of young people decreased between 2000 and 2006, by 0.4%, but more slowly than the overall active population (0.7 point). In 2006, 17.4% of young people were still unemployed, compared to 7.9% for the whole population. The rate of the young people aged 18-24 who leave the education system with lower secondary education at best decreased in the EU-27 from 17.6% in 2000 to 15.3% in 2006. The average rate of decrease since 2000 of 0.4 percentage points per year seems to slow to reach the 2010 target of 10%.

Eurostat emphasises that there are a number of objectives that cannot be monitored at EU level with currently available Community statistics, including increasing employment of legal migrants, reducing the negative effects of globalisation on workers and their families, and increasing the labour market participation of disabled persons.

7.3. Key EU Policies

Objective 1 - Reduction of Number of People at Risk of Poverty and Social Exclusion

Joint EU efforts to fight poverty and social exclusion started in 2000, with the launch of an open method of coordination in the social sphere. In March 2006, the European Council adopted a **new framework for the social protection and social inclusion process**. There is a new set of common objectives: three overarching objectives and specific objectives for each of the three policy areas of social inclusion, pensions, and health and long-term care. Member States coordinate their policies for combating poverty and social exclusion on the basis of a process of policy exchanges and mutual learning known as the 'open method of coordination' (OMC).

The European Council has repeatedly invited Member States to intensify their efforts in this field. In particular, the March 2006, European Council asked Member States to focus on **eliminating child poverty** and break the intergenerational transmission of poverty. The March 2007 European Council reaffirmed the need to fight child poverty and stressed that more attention should be given to active inclusion, ie ensuring adequate levels of minimum resources to all, balanced with making work pay.

⁷³ "Employment in Europe 2006" report, p. 72.

⁷⁴ Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions - Study on the links between legal and illegal migration (COM(2004)412 final)

The EU will propose to designate 2010 as the "**European Year of Combating Poverty and Social Exclusion**" to show that a strong political commitment is needed in the fight against poverty and social exclusion and to give impetus for further development of European Union's action. The year will see the organisation of meetings and events at national and Community level, with the aim to raise awareness and provide a forum for the exchange of ideas. The following issues will be among the priorities of the European Year: Intergenerational Transmission of Poverty; Labour Market integration (including adequate minimum income schemes and addressing in-work poverty); Tackling disadvantages in education and training; Ensuring decent accommodation; Overcoming discrimination and promoting the integration of immigrants and the social and labour market Inclusion of ethnic minorities, disabled people and other vulnerable groups.

Following its 2004 White Paper on services of general interest, the Commission adopted a Communication on " Social Services of General Interest in the European Union" on 26 April 2006. This Communication was based on an extensive consultation with Member States, social partners and civil society organisations in the area of social services. It reviews a number of specific features of social services and describes the modernisation processes undertaken by the Member States to improve the quality and effectiveness of these services. It also announces the publication of a biennial report in order to monitor progress.

Objective 2 - High Level of Social and Territorial Cohesion

A **roadmap for equality between women and men** was adopted in March 2006, to help achieve gender equality and help address the EU demographic challenge. The roadmap sets out six priority areas for action in the 2006-2010 period:

- Achieving equal economic independence for women and men;
- Enhancing reconciliation of work, private and family life;
- Promoting equal participation of men and women in decision-making;
- Eradicating gender-based violence and trafficking;
- Eliminating gender stereotypes in society and;
- Promoting gender equality outside the EU.

Each objective is followed by specific key actions. Actions include increasing awareness of gender equality in schools, promoting female entrepreneurship, establishing in 2007 an EU network of women in economic and political decision-making positions, publishing a Communication on the gender pay gap and highlighting gender issues during the 2007 European Year of Equal Opportunities for all. The Roadmap is implemented through an annual work programme, with progress assessed once a year. A final evaluation will be carried out in 2010.

EU Cohesion Policy seeks to **reduce economic and social disparities** in Europe through supporting integrated development programmes. These take into account the specificities of national and regional territories and include measures supported over a wide range of Community policies, for example social inclusion, active aging, redressing health disparities and e-inclusion.

Objective 3 - Modernise Social Protection in View of Demographic Changes

The EU supports the efforts of Member States to modernise social protection through the open method of coordination. In October 2006, the Commission adopted a Communication on the demographic future of Europe, which looks at ways in which the EU can help Member States respond to the demographic challenge it faces. Five areas were identified where the EU and the Member States should act in order to prepare for the upcoming demographic change: family-friendly policies to encourage higher birth rates, more jobs of good quality and longer working lives, a more productive and competitive Europe, receiving and integrating migrants and sustainable public finances. In parallel with the Communication, the Commission launched a consultation of the social partners on the issue of reconciliation of work, private and family life. Following a request by the Member States, and as announced in a **Communication on promoting solidarity between the generations**⁷⁵, a new high level advisory expert group on demography and family issues was set up in May 2007. The group will assist the Commission in drawing conclusions from research results and help to identify good data and best practices in order to prepare future demographic reports and the next demography Forum in 2008.

Objective 4 - Increase Labour Market Participation of Women and Older Workers

The EU policy on equality between women and men comprises legislation, mainstreaming and positive actions. Despite increasing female participation in the labour market and in higher education, differences still remain in the labour market between men and women. The **European Social Fund (ESF)** has already made important contributions to improving the situation of women in the labour market. For example, it has contributed to reducing the gender pay gap, from as high as 40% (in the 1960s) to less than 20% today. Whilst this is good progress, clearly efforts must continue. The importance attached to ensuring gender equality in employment is reflected in the **ESF programming for 2007-2013**. In addition to promoting equal opportunities, the aim of this ESF priority is to support the Lisbon target of raising the average level of women's participation in the workforce to 60% by 2010. To help achieve these objectives, the ESF is supporting activities in the Member States that promote women's employment, including projects that increase access to and participation at all levels of the labour market. These projects also help close pay gaps and support women's financial independence. They favour women entrepreneurs and women's participation in science and technology, in particular in decision-making positions. Reconciliation between work and family life and the promotion of childcare facilities and carers of dependents are also important considerations.

Increasing labour market participation of older workers is at the core of the **European Employment Strategy**. In addition to financial support provided by the **European Social Fund**, the Commission adopted, last June, a **Communication on "Towards Common Principles of Flexicurity"**⁷⁶. Flexicurity can be defined as a policy strategy which aims to enhance, at the same time and, the flexibility of labour markets, work organisations and labour relations on the one hand, and security – employment security and income security – on the other. With its strong emphasis on active labour market policies, and motivating lifelong learning and training, improving customized support to jobseekers, supporting equal

⁷⁵ Promoting Solidarity between the Generations COM(2007) 244 final, 10.5.2007.

⁷⁶ Towards Common Principles of Flexicurity: More and better jobs through flexibility and security COM(2007) 359 final - 27.6.2007.

opportunities for all and equity between women and men, the flexicurity model is expected also to improve the employment prospects of older workers.

Objective 5 - Continued Development of EU Migration Policy

In the field of migration, the EU's comprehensive policy builds on the Tampere European Council in 1999, the Hague Programme of 2004 and the Global Approach to Migration adopted by the European Councils in 2005 and 2006. The Commission is progressing with implementation of the comprehensive approach in a balanced way, making progress in each sector of activity called for by these programmes and 2007 will have seen a series of proposals and measures implemented. A first package was released on 16th the May which contained proposals on **mobility partnerships and circular migration**, the extension of the Global Approach to the Eastern Borders and the introduction of community wide sanctions for employers of illegal immigrants. On 23rd October 2007, the Commission will present the first 2 legislative proposals (highly skilled migrants Framework Directive) implementing the December 2005 Policy Plan on Legal Migration. In November 2007, the Commission will present a Communication updating the European Council on the progress made with regard to the overall implementation of the EU's comprehensive migration policy. EU efforts undertaken in this field are structured around four major themes:

(1) Legal migration

The December 2005 Policy Plan on legal migration sets out a roadmap for Commission initiatives in this area over the next years. It contains one framework proposal and four specific proposals for Directives which will be put forward from 2007 to 2009, addressing third-country nationals in employment:

- A general framework directive, aiming at guaranteeing a **common framework of rights to all third-country nationals** in legal employment already admitted in a Member State, but not yet entitled to the long-term residence status (23rd October 2007);
- A proposal for a directive on the conditions of entry and residence of highly skilled workers (23rd October 2007);
- A proposal for a directive on the **conditions of entry and residence of seasonal workers**;
- A proposal for a directive on the **procedures regulating the entry** into, the temporary stay and residence of Intra-Corporate Transferees (ICT); and
- A proposal for a directive on the **conditions of entry and residence of remunerated trainees** (Autumn 2008).

(2) Integration of legal migrants

On EU level, the following actions have been taken:

- Adoption of Common Basic Principles in November 2004;
- Communication on the Common agenda – a European Framework for the integration of third-country nationals in the EU, facilitating the implementation of the common basic principles (September 2005); supported by Council conclusions in December 2005;

- Regular Ministerial Conferences (Groningen 2004, Potsdam, 2007) and work on a European Integration Forum, planned for 2008;
- Reporting on the **Common Basic Principles** (3rd Annual Report on immigration and integration, which will be issued later in the year September 2007);
- Integrating cities initiative, which focuses on the identification of good practices will continue in co-operation with the Euro cities organisation and the next conference will take place in Milan this autumn;
- The newly-established European Fund for the **integration of third-country nationals** (€825 million for 2007-2013);
- The **National Contact Points on Integration** and the **Handbook on Integration** (2nd edition presented this year);
- Work is progressing on the design of the integration website, which should be up and running in 2008.

(3) Illegal immigration

The Commission will present reports end 2007/start 2008 on the **evaluation of FRONTEX** (reviewing the future mandate of the Agency) and on the possible establishment of an entry/exit system (allowing for registration of all movement at the external borders combined with a registered travellers system to speed up border crossings for bona fide frequent travellers). Moreover, the Commission will present to the Council in autumn 2007, concrete suggestions for how to progress a European system for surveillance of the external borders.

Building upon the Communication on illegal immigration of 19 July 2006 and the conclusions of the December 2006 European Council, on 16 May, the Commission presented a legislative proposal (draft Directive) on sanctions against employers of illegally staying third-country nationals. The aim is to ensure that all Member States introduce similar penalties for infringing employers and enforce them effectively. An accompanying Commission Staff Working Document recommends additional non-legislative measures to help achieve the policy objective of reducing the employment of illegally staying third-country nationals. The potential to find work is a key pull factor encouraging illegal immigration into the EU. This follows up on a pledge made by the Commission to tackle "illegal work" in its Communication of July 2006 on the future priorities in the fight against illegal immigration. Added value of EU Action is: improving enforcement; creating a more level playing field for businesses and sending a clearer message to employers of third countries on EU-wide action against illegal employment. At the same time, the Commission continues to prioritise work on agreeing common standards and procedures for return of illegally staying-third country nationals and the negotiation and conclusion of further Community readmission agreements with relevant third countries. Finally, the Commission launched a study on the impact of regularisation measures in EU Member States, the result of which will be presented in mid-2008 to prepare an in-depth policy debate in the second half of 2008.

(4) Financial programmes

The main objective of the framework programme is to address the issue of a fair share of responsibilities between Member States in the introduction of integrated management of the external borders of the Member States of the European Union and from the implementation of common policies on asylum and immigration. It will provide financial support to Member States in proportion to the efforts they undertake for the benefit of the Community as a whole.

The Framework Programme consists of four financial instruments:

- the External Borders Fund (applicable from 1 January 2007);
- the Integration Fund (applicable from 1 January 2007);
- the Return Fund (applicable from 1 January 2008);
- the European Refugee Fund, (applicable from 1 January 2008). The current European Refugee Fund will run till 31 December 2007.

Objective 6 - Reduce Negative Effects of Globalisation on Workers and their Families

In order to reduce the negative effects of globalisation on workers and their families, the Commission has set up the **European Globalisation Adjustment Fund (EGF)**. The EGF started operating 2007. Its objective is to retain or reintegrate into the labour market workers who have been made redundant due to changes in global trade patterns. The fund has a budget of up to €500 million per year. It intervenes when there have been at least 1 000 redundancies in an enterprise or in an industrial sector. Exceptions can be made for very small labour markets or exceptional circumstances. The first two applications for EGF assistance were approved by the Commission in June 2007.

In addition, the Commission intends to promote flexicurity which provides a balanced approach to flexible contractual labour arrangements, comprehensive lifelong learning strategies, effective labour market policies and modern social security systems.

Objective 7 - Promoting Increased Employment of Young People

In September 2007, the Commission adopted a **Communication on promoting young people's full participation in education, employment and society**. The Communication intends to establish a horizontal youth strategy, aiming to achieve closer cooperation between the existing youth policy framework (in particular 2001 Commission White Paper on Youth; 2005 European Youth Pact) and other policies impacting on youth. The initiative follows analysis undertaken by the Commission on youth employment in the EU as well as reports drafted by Member States on the implementation of common objectives for voluntary activities. It also builds on work undertaken by BEPA in the context of its report "Investing in Youth" of spring 2007. Across the policy areas covered (education; employment; entrepreneurship, social inclusion, gender imbalances and health; active citizenship) and largely building on previously established objectives and initiatives, the Communication lists almost 30 bullet points predominantly proposing action by Member States, with a supporting role by the Commission.

Objective 8 - Increase the Labour Market Participation of Disabled Persons

People with disabilities represent at least 16% of the EU's working age population. Only 40% of disabled people are employed, compared to a rate of 64.2% for the non-disabled. In this context, the **European Employment Strategy** pays special attention to the needs of people with disabilities in line with the EU **Disability Action Plan (DAP)** adopted by the Commission for the period 2004-2010. **The Action Plan** has three operational objectives: (1) full implementation of the Employment Equality Directive; (2) successful mainstreaming of disability issues in relevant Community policies; and (3) improving accessibility for all. In addition, the **European Social Fund in the programming period 2007-2013** will continue to support employment opportunities for disabled people.

7.4. Member State Actions

Objective 1 - Reduce the Number of People at Risk of Poverty and Social Exclusion By 2010, Focusing on Child Poverty

Most Member States report on their commitment to combat poverty, especially amongst children. The common key policy response lies in targeting families as a whole, and offering them social protection, including income subsidies, housing subsidies and minimum wage levels. In addition, action plans for social inclusion are frequently mentioned. Behind these commonalities, differences between Member States are still strong. Various new Member States are still facing deep pockets of poverty and welfare systems are often young and under-development.

Following the streamlining of the open methods of coordination in social inclusion, pensions, healthcare and long term care in 2006, all Member States have presented Strategies for social protection and social inclusion 2006-2008 covering all three areas. In response to the European Council's request, the vast majority of the Member States have set as a key priority, the need to develop a strategic, integrated and long-term approach to preventing and addressing poverty and social exclusion among children. The open method of coordination in social protection and social inclusion has adopted child poverty as a thematic focus for the year 2007. In pension reform, Member States aim to achieve the objectives of sustainable and adequate pensions. These two objectives need not be contradictory: indeed they can be mutually reinforcing. A sustainable pension system is one that guarantees adequate income in the long run for its pensioners so that it does not need ad hoc State interventions. In healthcare and long term care, Member States aim to ensure high quality care for all. This implies ensuring that healthcare is effectively accessible to all and that inequalities in health outcomes be decreased. It also implies ensuring financial sustainability, including for long term care for the frail elderly, and ensuring that there are sufficient human resources to cope with future demand both for healthcare and for long term care.

Objective 2 - Ensure a High Level of Territorial Cohesion and Respect for Cultural Diversity

Only a few Member States report on this objective, which includes both territorial cohesion (e.g. amongst and between urban and rural areas in France and Hungary) as well as promoting cultural diversity (eg IE). A particularly comprehensive approach in this respect is that of the UK's Sustainable Communities – which adheres to 8 principles of sustainable development at local level.

Objective 3 - Modernise Social Protection in View of Demographic Change

The scale and phasing of demographic challenges vary significantly between countries, but the policy responses do so even more. Apart from the single country which states to be prepared for the demographic change already (eg SE), broadly three types of actions can be distinguished: a) Reform of the welfare state, where the terms for governing receipt of social assistance decrease (eg CZ, BG); 2) Pension reforms including the increase of working age (eg BE, DE, ES, UK); 3) Specific family planning actions focusing on the increase of birth rates (eg EE, FR, IT).

Objective 4 - Significantly Increase the Labour Market Participation of Women and Older Workers as well as Legal Migrants

This objective commonly fits within broader labour market strategies that are often packaged in National Employment Action Plans already. Increasing labour supply, especially of women, young workers and migrants, has featured in the European Employment Strategy since 1997. This has been included in the Employment Guidelines in various guises with a prominent place in the latest set, those integrated within the Lisbon Strategy running from 2005-2008. These contain specifically a target for a 60% participation rate for women and 50% for older workers by 2010 for the EU as a whole but this is also considered as a guide for national targets set by individual Member States. Numbers have increased substantially from 2000 and the target for women is likely to be attained by 2010; that for older workers remains some way off and the target date will be missed in spite of the steady increase in most Member States.

There is no target for migrant workers, not least because there are no EU harmonised statistics. Addressing higher unemployment and lower employment rates for migrants has remained a key challenge in the EU and for many Member States without a great deal of success judging from the very partial statistics available.

A better macro economic situation will have seen some improvement in total migrant labour market participation but the success for women and older workers, in significant part due to the European Employment Strategy, cannot be discerned for migrants.

Objective 5 - Develop an EU Migration Policy – including Attention to the Economic Dimension of Migration

Countries are only reporting to a limited extent on this objective, often by referring to EC Directives (eg EL, SK) or by mentioning national initiatives such as the Irish Immigration Protection Bill which represents and overhaul of the country's immigration and protection laws.

Objective 6 - Reduce Negative Effects of Globalisation on Workers

Reporting on the objective to reduce negative effects of globalisation on workers is almost non-existent, apart from France and Finland.

Objective 7 - Promote Increased Employment of Young People

Unemployment among young people varies strongly within the EU and some countries which are facing important challenges in this area (eg FR, DE) report on the subject. Typical elements of active labour market policy – often supported by Structural Funds - include training (eg DK), apprenticeships (eg FR) or job guarantees (eg SE).

Objective 8 - Increase Labour Market Participation of Disabled People

Member States are clearly concerned and committed to this objective, and reporting is more comprehensive. Typical actions include both labour market and welfare measures. Tax deductions for employers are increasingly popular.

7.5. Conclusions

There has been some progress towards meeting the objectives of this theme, but important challenges remain. With 16% of citizens in the EU-25 still at risk of poverty, the EU has not yet made significant progress towards reducing social exclusion. However, there has been progress in improving the labour market participation of the groups targeted by the EU SDS. The female employment rate has grown in a positive way from 2000 to 2005. The figures for employment of the 55-64 year old age group are encouraging, with an increase of 6.6 percentage points between 2000 and 2006 at EU-27, compared to 0.5 percentage points between 1997 and 2000. However, the unemployment rate of young people decreased only slightly between 2000 and 2006, by 0.4% and in 2006 there were still 17.4% of young people unemployed. In most Member States, labour market integration of legally residing non-EU nationals remains a significant problem and the unemployment rate for non-EU nationals (17%) were almost twice as high compared to EU nationals (9%).

In terms of EU policy, progress has been satisfactory. Main initiatives include: A new framework for the Social protection and social inclusion process with three overarching objectives, (European Council March 2006); Request from the European Council to Member States to focus on eliminating child poverty and break the intergenerational transmission of poverty, March 2006; Communication on "Towards Common Principles of Flexicurity", June 2007; Commission proposal to designate 2010 as the "European Year of combating poverty and social exclusion" to show that a strong political commitment is needed in the fight against poverty and social exclusion; Communication on "Social Services of General interest in the European Union" on 26th April 2006 to be followed by a new Communication on Services for general interest including Social Services at the end of 2007; Roadmap for Equality between women and men, adopted in March 2006; Communication on the Demographic future of Europe, October 2006; Policy Plan on Legal Migration, December 2005; and on Promoting solidarity between generations, May 2007; and Agreement on a Global Approach to Migration adopted by the European Council in 2005 and 2006, now being implemented.

Although the social dimension of sustainable development is not considered part of the EU SDS by some Member States (eg DK, PT), most countries provide reasonably comprehensive reporting in this area. Most attention goes to the reduction of poverty and active labour market policies – promoting the inclusion of various target groups (older workers, younger workers, legal migrants, women and the disabled). This is an important objective not only from the point of EU SDS but also from the Lisbon Strategy. Objectives within this theme do not always sit comfortably together. Tension can be noticed between the challenge to reduce the number of people at risk of poverty and the need to modernise social protection in view of demographic change. In some countries (eg CZ), cuts in welfare reform are explicitly

mentioned. Reporting on the objective to reduce negative effects of globalisation on workers is almost non-existent.

8. GLOBAL POVERTY AND SUSTAINABLE DEVELOPMENT CHALLENGES

8.1. Objectives

Overall objective: To actively promote sustainable development worldwide and ensure that the European Union's internal and external policies are consistent with global sustainable development and its international commitments.

- Make significant progress towards meeting the commitments of the EU with regard to internationally agreed goals and targets, in particular those contained in the Millennium Declaration and those deriving from The World Summit on Sustainable Development held in Johannesburg in 2002 and related processes such as the Monterrey Consensus on Financing for Development, the Doha Development Agenda and the Paris Declaration on Aid Harmonisation. (IBRD data).
- Contribute to improving international environmental governance (IEG), in particular in the context of the follow-up to the 2005 World Summit outcome, and to strengthening multilateral environmental agreements (MEAs).
- Raise the volume of aid to 0, 7% of Gross National Income (GNI) by 2015 with an intermediate target of 0.56% in 2010.
- Member States which have not yet reached a level of 0.51% ODA/GNI undertake to reach, within their respective budget allocation processes, that level by 2010, while those that are already above that level undertake to sustain their efforts.
- Member States which have joined the EU after 2002 and that have not reached a level of 0, 17% ODA/GNI will strive to increase their ODA to reach, within their respective budget allocation processes, that level by 2010, while those that are already above that level undertake to sustain their efforts.
- Member States undertake to achieve the 0, 7% ODA/GNI target by 2015 whilst those which have achieved that target commit themselves to remain above that target; Member States which joined the EU after 2002 will strive to increase by 2015 their ODA/GNI to 0, 33%.
- Promote sustainable development in the context of the WTO negotiations, in accordance with the preamble to the Marrakech Agreement establishing the World Trade Organisation which sets sustainable development as one of its main objectives.
- Increase the effectiveness, coherence and quality of EU and Member States aid policies in the period 2005–2010.
- Include sustainable development concerns in all EU external policies, including the Common Foreign and Security Policy, inter alia by making it an objective of multilateral and bilateral development cooperation.

8.2. State of Play

The World Bank 2007 Global Monitoring report⁷⁷ reports that progress has been made on the Millennium Development Goals (MDGs) in certain areas. Positive economic growth since the start of the new millennium has meant that global poverty fell by almost 4% – or that 134 million people were lifted out of serious poverty. In Sub-Saharan Africa, the share of extreme poverty fell by nearly 5 percentage points to 41%, although this region still remains the poorest in the world with two-fifths of its people living on less than 1 US dollar a day. In terms of human development, the primary school completion rate has improved from 78% in 2000 to 83% in 2005. Aid quality and effectiveness is improving and being monitored under the 2005 Paris Declaration, although many challenges remain.

On the other hand, 1 billion people still remain in extreme poverty. All developing regions fail to meet the target for reducing child mortality and one-third of all children in developing countries are underweight or stunted. Progress on environmental sustainability, a key MDG, is still lagging behind. Half of the people in developing countries lack access to improved sanitation. By the end of 2006 some 39, 5 million people were living with the HIV virus – an increase of 2, 6 million (particularly in Eastern Europe and Central Asia). There is no example of aid being significantly scaled up to support a medium-program to reach the MDGs five years after the Monterrey summit. There may be modest progress in the aid effectiveness seen from the donor's point of view – but this has still to be translated into real effectiveness in aid as seen from the developing country perspective.

One of the quantified targets of the EU SDS for the Global Theme is to raise the volume of aid to 0.7% of Gross National Income (GNI) by 2015 with an intermediate target of 0.56% in 2010⁷⁸. Eurostat reports, that after a low around the year 2000, there was a sharp increase in the EU-15 ODA/GNI contributions, resulting in an increase from 0.32% to 0.44% between 2000 and 2005, which corresponds to an average annual growth of more than 17% of disbursed amounts in absolute value. However this growth stalled in 2006 and the EU fell slightly behind the 2010 intermediate target path. Few countries have achieved the 2015 target of 0.7%. The World Bank confirms that after reaching a record level in 2005, total DAC member aid fell by about 5% to just below 104 billion dollars in 2006.

The objective of increasing the effectiveness, coherence and quality of EU and Member States aid policies concerns the period 2005–2010, and progress cannot accurately be evaluated yet. However one of the two ways suggested to increase the quality and effectiveness of aid is through debt reduction and untying of aid. Bilateral ODA commitments for actions relating to debt such as forgiveness, swaps, buy-backs, rescheduling and refinancing grew by 43% per year on average since 2000, to reach 35.3% in 2005.

In conclusion, although there have been some positive developments, the challenges remain and seriously increased efforts are needed to make the significant progress towards meeting the EU MDG and other commitments.

⁷⁷ Global Monitoring Report 2007, International Bank for Reconstruction and Development
⁷⁸ 2007 SDI Monitoring Report, Eurostat.

8.3. Key EU Policies

Objective 1 - Make a significant progress towards meeting the commitments of the EU with regard to internationally agreed goals and targets

In 2000, the European Union agreed to the Millennium Declaration, which includes eight MDGs to be achieved by 2015. This represented the first time that a broad strategy to meet key development needs of the world has been established, with measurable targets and defined indicators⁷⁹. Following this in 2002, the World Summit on Sustainable Development (WSSD), held in Johannesburg, agreed on a Plan of Implementation to reach global sustainable development objectives.

The European Consensus on Development, approved by the European Parliament, the Council and the Commission in December 2005, puts eradication of poverty in the context of sustainable development including the pursuit of the MDGs as the overarching objective of EU development policy. With specific reference to MDG1 (dividing by half the proportion of under-nourished people), the EU started the implementation of the **Thematic Programme on Food Security** (2007-2010) with the adoption of its first Annual Action Plan 2007 by Member States .

Member States and the Commission should implement the EU strategies on Africa, Latin America and the Pacific.

The 2005 EU Africa Strategy expresses the priority the EU gives to cooperation with Africa and the difficulties faced by this continent to achieve the MDGs. In 2007, a Joint EU-Africa Strategy will be completed. The purpose of the Joint Strategy is to strengthen the political partnership and enhance cooperation at all levels including an EU – Africa partnership on climate change.

Neighbourhood policy

The main objective of the **European Neighbourhood Policy** (ENP) is to promote prosperity, security and stability throughout the neighbourhood of the enlarged European Union, aiming towards a progressive convergence in neighbourhood countries with EU standards and norms including those related to sustainable development⁸⁰. The ENP Action Plans contain actions to promote economic growth, employment, social cohesion, poverty reduction and protection of the environment with the aim to contribute to the long term objective of sustainable development.

Implementation of ENP Action Plans in some cases is in a rather early stage and, so far, progress has been mixed, reflecting the vast scale of challenges for promoting sustainable development. Most partners have national sustainable development strategies in place or are in the process of reviewing them. National inter-ministerial structures exist in most cases, but they hold regular meetings only in a limited number of countries. A key challenge is therefore

⁷⁹ <http://www.un.org/millenniumgoals/index.html>

⁸⁰ The ENP covers the EU's neighbours to the east and along the southern and eastern shores of the Mediterranean (ie Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, the Palestinian Authority, Syria, Tunisia and Ukraine).

for most countries to activate the existing structures, in order to ensure a truly cross-sectoral approach to sustainable development.

Financial support is provided through a dedicated **European Neighbourhood and Partnership Instrument (ENPI)**⁸¹. The amount of EC funding for ENP countries for the budget cycle 2007-2013 is nearly €12 billion.

The World Summit on Sustainable Development

The World Summit on Sustainable Development, held in 2002 in Johannesburg, agreed on a Plan of Implementation to reach global sustainable development. The EU committed itself to implement the outcome of the World Summit on Sustainable Development (WSSD) at home, and to help implement it, in cooperation with other global partners, abroad. The overall goals of the WSSD commitments are:

- Integration of the social, economic and environmental dimensions of sustainable development in policy-making at international, regional and national levels
- Wide-spread adoption of an integrated, cross-sectoral and broadly participatory approach to sustainable development
- Measurable progress in the implementation of the goals and targets of the Johannesburg Plan of Implementation (JPOI).

Five years after the WSSD, there is progress on a number of WSSD goals and targets. Many countries have developed or are developing their own sustainable development strategies. However, quite a number of them have still failed to do so by the WSSD deadline of 2005⁸². Globally, patterns of consumption and production are still unsustainable, and many environmental, economic and social challenges still remain unsolved or have become more serious. The latest IPCC reports have stressed increased concerns over global climate change⁸³ and the **Millennium Ecosystem Assessment** painted a gloomy picture of the consequences of ecosystem change for human well-being.

Implement the EU “Water for Life” Initiative, the EU Energy Initiative as well as the Johannesburg Renewable Energy Coalition and the Strategic Approach to International Chemicals Management (SAICM).

EU Water for Life Initiative

There has been uneven progress on the various geographical components of the **EU “Water for Life” Initiative (EUWI)** which was launched at the WSSD in 2002. In response to the call of the Council to ‘reinvigorate’ the EUWI, the EUWI Steering Group will consider

⁸¹ The ENPI targets sustainable development and approximation to EU policies and legislation, and brings a radical improvement in our capacity to support cross-border cooperation along the EU’s external borders – thus giving substance to our aim of avoiding new dividing lines between the EU and our neighbours.

⁸² http://www.un.org/esa/sustdev/natlinfo/nsds/nsds_Map2006.pdf for a map on the state of implementation of SDS in the world.

⁸³ <http://www.ipcc.ch/>

changing the organizational structure and devising an overall strategy that will lead to more effective implementation of the EUWI at regional level starting 2007.

EU Energy Initiative

The EU Energy initiative (EUEI) has become an important framework for dialogue and action on energy, poverty alleviation and sustainable development. Due to the EUEI, energy is now a priority area in EU Development Policies, with special emphasis on access, energy security, efficiency and renewable energy. The EUEI has also been able to develop a number of financial instruments, including the €220 million Energy Facility that from 2007 that will co-finance a large number of projects on energy access and sustainable development.

Johannesburg Renewable Energy Coalition

Another element of the Johannesburg Plan of Implementation (JPOI), of the 2002 WSSD, was the recognition that there is a need to "...with a sense of urgency, substantially increase the global share of renewable energy sources with the objective of increasing its contribution to total energy supply". To ensure the adequate follow-up of the JPOI on renewable energy, the EU together with a number of like-minded countries, launched the "Declaration on the Way Forward on Renewable Energies", and formed the **Johannesburg Renewable Energy Coalition** (JREC). Since then, JREC Ministers and Senior Officials have met regularly to identify different policy objectives that can be addressed through increased renewable energy policies and measures, including objectives related to environment, energy security, rural and enterprise development, trade, employment, etc.

The European Commission proposed creating a global risk capital fund to mobilise private investment in energy efficiency and renewable energy projects in developing countries and economies in transition. The Commission intends to kick-start the fund with a contribution of up to €80 million over the next four years, and expects that financing from other public and private sources will take funding to at least €100 million. This means that it will contribute to the financing of investment projects of a value up to €1 billion. An aim of this fund is to help transfer energy technologies to people in poorer regions of the world to help combat climate change and air pollution.

Strategic Approach to International Chemicals Management (SAICM)

The sound management of chemicals is important for sustainable development and poverty reduction and a key WSSD commitment. The Commission will therefore contribute substantively to the SAICM Quick Start programme and the SAICM trust fund via its external Thematic Programme on Environment, Sustainable management of Natural Resources and Energy (ENRTP) and via the European Development Fund (EDF). The aim is to develop capacity to manage chemicals in safe and sound way in developing countries and ACP countries. REACH and the Community Strategy Concerning Mercury will also help to fulfil SAICM objectives

EU Action Plan for Forest Law Enforcement Governance and Trade (FLEGT)

The FLEGT Initiative is another key initiative that relates to the UNFF goal to reduce deforestation and is directly associated with the sustainable development commitments that the EU has made as part of the MDGs and the Johannesburg Plan of Implementation (JPOI).

The FLEGT initiative works in support of third countries to combat illegal logging and the trade in illegally logged timber, which is a major problem for many timber-producing countries in the developing world. Such activities cause environmental damage, cost governments billions of dollars in lost revenue, promote corruption, undermine the rule of law and good governance and in some places have financed armed conflict.

In December 2005, Council agreed a Regulation⁸⁴ for a FLEGT licensing scheme and the mandate for negotiation of partnership agreements. One of the cornerstones of the FLEGT Action Plan, are Voluntary Partnership Agreements (VPA) with producer countries suffering from problems of illegal logging and poor forest governance. Negotiations are underway to develop such partnerships with Malaysia, Indonesia, and Ghana

Commission for Sustainable Development

The EU considers the UN Commission for Sustainable Development (CSD) as an important multilateral forum for countries to come together to follow-up on, and build upon, their WSSD commitments, by addressing a different cluster of themes every two-year. Difficulties to implement the WSSD became apparent in May 2007, where the UN CSD, failed to agree on concrete measures and policies to accelerate WSSD implementation in the field of energy, air pollution, industrial development and climate change as it had been tasked to do. As a consequence, no decision was made on several JPOI (Johannesburg Plan of Implementation) elements, for instance on a follow up and review arrangement on renewable energy policies. The EU is currently considering what alternatives are available to meet this commitment, notably through the Johannesburg Renewable Energy Coalition, an alternative multilateral forum whereby almost 100 like-minded countries are working together towards increasing the proportion of renewable energy into the global energy mix.

Investments through the European Investment Bank and the EU-Africa Partnership for Infrastructure should support sustainable development objectives. The European Investment Bank should assess its lending against the contribution to achieving the MDGs and sustainable development.

- The EIB external mandates for 2007-2013 (€27.8 billion) focus on clean energy, energy efficiency, transport, infrastructures and environmental protection, especially in ENP and pre-Accession countries. EIB lending mandates for Asia and Latin America are expected to address major energy and environmental concerns at national and regional level.
- The set up of separate joint financing facilities with the EBRD, the World Bank and with KfW of Germany to finance international carbon trading schemes.
- The Infrastructure Trust Fund is the innovative financial instrument of the EU-Africa Partnership on infrastructure. The Community has pledged an initial contribution of up to €60 million for start-up phase (2006-2007). The EIB committed itself to mobilize about €250 million of loans for the same period. On their side, nine Member States have already signed the Agreement with total contributions of €27 million. The aim is to get Africa to invest in Africa to stimulate economic growth; to promote competitive trade; to foster regional integration and by this to contribute effectively towards the MDGs.

⁸⁴ http://ec.europa.eu/development/ICenter/Pdf/Environment/forests/B2_FLEGT_regulation_OJ.pdf

With specific reference to MDG 7 (ensuring environmental sustainability), the EU started the implementation of the Environment and Natural Resources Thematic Programme (2007-2010) with the adoption by Member States of its first Annual Action Plan (2007).

Also the Global Climate Change Alliance (GCCA) was launched between the EU and poor developing countries most vulnerable to climate change, with a view to provide a platform for dialogue and exchange between the EU and these developing countries and to increase cooperation on climate change.

Objective 2 - Improve international environmental governance (IEG)

The EU is committed to working towards more effective and functioning multilateralism and sees this as key to poverty reduction and global sustainable development. The EU is therefore a major actor in the current discussions on an ambitious reform of the UN system. Part of the reform must concern the way the UN system deals with environment issues. Indeed, there is a growing global consensus that in the face of environmental challenges and its links with peace, security and poverty, a fundamental change is now needed, in order to address the shortcomings of the system, eventually through reinforcing UNEP (United Nations Environment Programme) and promoting further synergies

The EU has to this aim repeatedly and at the highest level argued that an effective and efficient environmental governance system should be guided by the following principles:

- Visibility: capacity to grasp attention and create visible support of political leaders;
- Good scientific basis: scientific knowledge as basis of sound environmental policy;
- Coherence: coordination, regular communication and a shared sense of direction;
- Sound management, along with adequate resources;
- Integration: the system should seek to incorporate environmental concerns within other areas of international policy and action. The further development of synergies between MEAs is an important element in this context, and the EU will continue to encourage it, as is the case, for instance, in the chemicals sector.

The EU believes that a specialised agency for the environment (the "United Nations Environment Organisation", or "UNEO"), built on an upgraded UNEP, and based in Nairobi could best contribute to fulfilling such a vision.

The EU wants greater legal clarity on the relationship between WTO rules and trade provisions of Multilateral Environmental Agreements (MEAs). It wants to confirm that WTO rules and MEAs are equal in public international law, and that in environment related cases WTO rules need to be interpreted in the light of MEA objectives. It believes that more certainty would make policy making easier and support multilateral efforts to tackle international environmental problems.

The EU also wants to encourage closer cooperation between the WTO and other bodies concerned by its decision making, ie by granting permanent observer status for core MEAs in the CTE Regular and Special Session and other relevant WTO committees. The EU wants the

current WTO/MEA exchange to be institutionalised to achieve better international governance.

Objective 3 - Raise the volume of aid to 0.7% of GNI by 2015 and 0.56% in 2010

In 2006, the EU disbursed €48 billion of ODA, corresponding to 0.42% of GNI and exceeded its first collective intermediate ODA target of 0.39% of GNI set in 2002 at the time of the Monterrey Conference. If progress continues, it will be possible to achieve the intermediate target of 0.56% in 2010 moving towards the MDG target of 0.7% of GNI by 2015. However, while debt relief grants contributed to the positive results in 2005 and 2006 it is clear that further efforts are needed to achieve the goal. As was agreed, some 50% of the ODA increases have been directed to Sub-Saharan Africa.

Four of the EU-15 (DK, LU, NL, SE) already passed the 0.7% target level. The new Member States have agreed to ambitious targets of 0.17% by 2010 and 0.33% by 2015. The 10 Member States that joined in 2004 have already doubled their collective aid effort since the accession and achieved an ODA level of 0.10% GNI in 2006. Still, several new Member States need to plan further increases in their aid volumes.

Objective 4 - Promote sustainable development in context of WTO

In Doha, governments agreed to make sustainable development (SD) a horizontal objective of the new round and to negotiate on a number of issues that would improve the mutual supportiveness of trade and environment (paragraph 31 of the Doha Ministerial Declaration). The 2002 World Summit for Sustainable Development (WSSD) reinforced these commitments and called for the new round to enhance trade's contribution to global sustainable development. The EU believes the DDA can do this by: a) successfully concluding the DDA-specific negotiations on trade and environment thereby enhancing trade in environmental goods and improving international governance for SD; b) better addressing the development needs of Developing countries through improved market access, technical assistance and capacity building.

The 2007 "Aid for Trade" Communication allows for support in the areas of trade and environment and sustainable trade. In the discussions that the Commission is currently having with Member States in view of developing a Joint EU Aid For Trade Strategy, it will highlight the importance of these particular areas. Sustainability Impacts Assessments (SIAs) are systematically carried out to assess the likely impacts of multilateral and bilateral trade negotiations involving the EU and developing countries on sustainable development. The SIAs make it possible to formulate measures to counteract negative sustainability outcomes as well as to enhance positive ones and to programme accordingly aid and cooperation activities for trade resources and for the potential adjustments arising from trade agreements. However, the key challenge for the future will be to ensure that the recommendations made in these studies inform the negotiations, ie that they are translated into concrete policy measures, be they trade or non-trade related.

Finally, in terms of Environmental Goods and Services, the EU wants to liberalise trade in eg providing a boost for EU environmental technologies while helping Developing Countries to see that more open trade in Environmental Goods also serves their own sustainable development objectives. It will work together with EU trading partners to improve

environmental and social standards and use the full potential of trade or cooperation agreements at regional or bilateral level to this end.

The EU has now set up a new and ambitious approach to sustainable development in the new Free Trade Agreements (FTA) envisaged in the Global Europe communication. The new approach involves a distinct sustainable development chapter in each trade agreement with substantive commitments on environmental and social issues. The sustainable development chapters will include a commitment to core labour standards, decent work and relevant MEAs. Provisions for cooperation on relevant sustainable development issues will also be included. Each of these trade negotiations will be accompanied by Trade Sustainability Impact Assessments (SIA). The aim is to examine the impacts on sustainable development arising from new FTAs and bring them to the attention of negotiators and all interested parties in order to ensure that their conclusions and recommendations are included in the negotiating processes.

Objective 5 - Increase effectiveness of aid policies

In line with the principles of the 2004 Paris Declaration on Aid Effectiveness, the EU committed itself under the recent "Aid Effectiveness Action Plan" to deliver more aid, better and faster. This includes a Common EU programming framework, allowing joint EC-Member States programming of cooperation. There are already examples of joint programming work with ACP countries under the 10th EDF and this will in the future also be extended to non-ACP countries (during the upcoming midterm review and the next programming cycle).

Country Strategy Papers (CSPs) are an instrument for guiding, managing and reviewing EC assistance programmes. The purpose of CSPs is to provide a framework for EU assistance programmes based on EU/EC objectives, the Partner Country government policy agenda, an analysis of the partner country's situation and the activities of other major partners.

The CSP is a tool for better aid coordination and better planning of co-operation activities, donor co-ordination/complementarity, and increase coherence between EU external assistance policy and other EU policies.

The April 2005 Commission Communication on "Policy Coherence for Development – Accelerating progress towards attaining the MDGs" proposed a specific framework for Policy Coherence for Development (PCD). It was endorsed in the May 2005 Council Conclusions on PCD⁸⁵, and the Council agreed on EU PCD commitments in 12 areas: trade, environment, climate change, security, agriculture, fisheries, social dimension of globalisation, migration, research and innovation, information society, transport and energy. In 2006, a rolling Work Programme on PCD was set up for 2006-2007. The Commission will finalise the first EU Report (Member states and Commission) on the twelve PCD areas in the second half of 2007.

Finally, the May 2007 Council Conclusions on the "EU Code of Conduct on Complementarity and Division of Labour in Development Policy" reflect the principles of ownership, alignment, harmonisation, management for results and mutual accountability of the Paris Declaration.

⁸⁵ May 2005 General Affairs and External Relations Council (GAERC) Conclusions on the Millennium Development Goals (Doc. 9266/05).

Objective 6 - Include SD concerns in all EU external policies

The Development Cooperation Instrument (DCI) adopted in December 2006 provides the framework for support from the EC budget to developing countries. One of its objectives is to integrate environmental protection requirements into the EC's development and other external policies as well as help to promote the EC's environmental and energy policies abroad in the common interest of the Community and partner countries and regions. Geographic allocations are complemented by a Thematic Programme for Environment and Sustainable Management of Natural Resources, including Energy (ENRTP) worth € 889.5 million for the period 2007-2013. With its five priorities, the ENRTP will support the integration of environmental protection into development policy and promote Community environment and energy policies abroad.

The EC is revising its 2001 strategy concerning integration of the environment in development cooperation. The strategy will encourage better integration of environment and natural resources in EU Country and Regional Strategy Papers (CSP/RSP) both as focal area and cross-cutting theme and will address all Aid Delivery Mechanisms, including Budget Support. It will use whenever relevant, tools such as Environmental Impact Assessments (EIAs), Country Conflict Assessment (CCAs) and Strategic Environmental Assessments (SEAs). It will also target important issues such as reinforcing the 'demand' side, ie raise the profile of investment in environment and sustainability issues amongst decision makers in developing countries. Integration of Multilateral Environmental Agreement (MEA) action plans or monitoring and evaluation are other important topics.

EU Country and Regional Strategy Papers must all include an environmental analysis, the "environmental profile". This analysis should be reflected in country and regional development priorities. The EU Pacific Strategy for instance identifies environment as one of the key sectors for cooperation and several countries selected water and sanitation and/or renewable energy as focal sector. In the EU-Caribbean Strategy, the focal sector "Disaster risk reduction" includes a component on climate variability. Likewise, environment has been fully integrated into the draft Regional Planning Document for Asia 2007-2013. A significant part of the budget is earmarked for policy and know-how based co-operation in the field of environment, energy and climate change. This will include specific actions to promote Sustainable Consumption and Production and to implement the EU Forest Law Enforcement, Governance and Trade Action Plan in Asia.

The rural poor rely almost exclusively on natural resources and ecosystems services for their livelihood, and these are under increasing pressure and even at risk of disruption. A degraded environment also reinforces the impacts of poverty and can contribute to exacerbate conflicts, push more and more environmental refugees on the road and increase vulnerability to natural disaster. Furthermore, many development cooperation investments will be put at risk by climate change. In this context, the EU is committed to improve the sustainability of its development aid, including 'climate-proofing', mainly through the extensive use of environmental assessments (SEAs and EIAs) as well as the support to better integration of MEAs Action Plans into development strategies.

Enlargement

The accession of the EU-10 countries in 2004 (Bulgaria and Romania in 2007), made a major contribution to sustainable development on the European continent as the new Member States took on the obligations and standards of the EU acquis. As the present candidate and 'pre-candidate' countries now move along the same path, they are also raising their environment

standards through transposition of the EU acquis and through meeting requirements to integrate environmental considerations into other sectors, in conformity with article 6 of the EC Treaty.

The Green Diplomacy Network

The Thessaloniki European Council of June 2003 agreed to launch the Green Diplomacy Network (GDN) as an initiative aimed at promoting the integration of environment into external relations through the creation of an informal network of environment experts within foreign ministries. The Network has contributed to the creation of a new “culture” in the area of sustainable development by introducing points relating to the multilateral agenda more systematically into regular bilateral discussions.

Since its establishment, the GDN has made significant progress. To date 18 demarches have taken place under the auspices of the GDN on a range of environment related topics, including climate change, biodiversity, renewable energy, desertification and water. A great deal of feedback has been generated from such demarches reinforcing the negotiating position of the EU in key environmental negotiations.

8.4. Member State Actions

Objective 1 – Make a significant progress towards meeting the commitments of the EU with regard to internationally agreed goals and targets

The Member States confirm their commitments to the MDGs. While some indicate a geographic focus (especially EU10 indicate a focus on Eastern Europe, Balkans and Central Asia) others mention a thematic focus. Several Member States highlight the relation between environment and poverty. This is reflected in ODA used for environmental actions that benefit the poor and contribute to the MDGs (eg DE, NL, DK). However, despite the political importance attached to this objective, relatively few countries include key policy initiatives. The MDGs as such are difficult to monitor and live up to in practice as they are very broad in nature. In this respect, the Netherlands reports about the need to strengthen the coherence between various international goals. Germany reports about a 2015 Programme of Action, including ten priority areas for the fight against poverty, which go beyond the MDGs, while Greece has introduced a breakdown of its development budget by MDG.

Objective 2 - Improve international environmental governance (IEG)

A large number of Member States are committed to this objective, specifically by supporting to develop a UN Environmental Organisation (UNEO) as a further development of UNEP. Leading in this area are France, Sweden and UK, with support from Italy and Luxembourg. Some countries (e.g. NL, EE) call for support to a Global Environmental Facility as the key international source to fund environmental improvements.

Objective 3 - Raise the volume of aid to 0.7% o GNI by 2015 and 0.56% in 2010

Almost without exception, Member States confirm their support to the future targets, while reporting on 2006 levels is less systematic. Significant divergence exists in the ability to deliver such levels of support up to 2006. Within old Member States, a distinction can be made between the countries with high levels of support (above 0.7%, SE, DK, NL, LU) who

indicate that they will stay well above that requirement (eg LU, DK, NL) and medium-levels (0.5%). Italy, Greece and Portugal are having low volumes of aid (0.2% or lower). Some Member States have been able to increase their aid level significantly, (eg IE), while new Member States are starting to increase aid volumes from low aid levels (typically 0.1%). Some of these (explicitly MT, EE, SK) underline that they are on track to achieve their ODA targets (0.17% GDP by 2010 and 0.33% GDP by 2015).

Objective 4 - Promote sustainable development in context of WTO

Explicit reference to the Doha Development Round is expressed by only a handful of countries, while national reports often fail to grasp the latest state of play in this area (latest WTO initiatives following the Potsdam failure). Denmark announces concrete initiatives to better link trade and environment – within WTO and beyond, while France is supportive of environmental social aspects of the WTO dossier. Spain has taken forward actions to better coordinate trade, aid and human interventions. The Netherlands gives an example of support for sustainable and ethical imports through a code of conduct and global label for flowers (Fair Flowers, Fair Plants initiative).

Objective 5 - Increase effectiveness of aid policies

Despite overall commitment to the Paris Declaration, only few key policy actions have been specifically mentioned in this area. Sweden makes reference to a range of actions in support of the Paris Declaration, while Finland is involved in innovative funding and debt relief initiatives. Overall, larger donors appear to be more committed to this objective for understandable reasons (eg LU). Aid effectiveness is also considered important by New Member States which are building up their development policies and agencies (e.g. Slovak Agency for International Development).

Objective 6 - Include SD concerns in all EU external policies

Member States show their commitment to this objective in various ways. Helping to build capacity for chemicals management in developing countries (eg AT, SE), the integration of climate issues in foreign policy (eg DE, FI) or by including SD concerns in regional strategies – e.g. the Mediterranean Strategy on SD that was adopted through French support or the Black Sea Economic Co-operation (eg EL).

8.5. Conclusions

There are some encouraging developments on the MDGs. Positive economic growth since the start of the new millennium has meant that global poverty fell by almost 4% – or that 134 million people were lifted out of serious poverty. In terms of human development, the primary school completion rate has improved from 78% in 2000 to 83% in 2005. Aid quality and effectiveness is improving and being monitored under the 2005 Paris Declaration, although many challenges remain. On the other hand, 1 billion people still remain in extreme poverty. All developing regions fail to meet the target for reducing child mortality and one-third of all children in developing countries are underweight or stunted. Half of the people in developing countries lack access to improved sanitation. After a low around the year 2000, there was a sharp increase in the EU-15 ODA/GNI contributions, resulting in an increase from 0.32% to 0.44% between 2000 and 2005. However this growth stalled in 2006 and the EU fell slightly behind the 2010 intermediate target path.

There has been progress on policy development at EU level, but much still remains to be done. In December 2005, the three EU institutions agreed “The European Consensus on Development”, which puts eradication of poverty eradication at the centre of EU development policy. On the volume of aid, it seems possible to achieve the intermediate target of 0.56% in 2010 moving towards the MDG target of 0.7% of GNI by 2015. However, it is clear that significant further efforts are needed to achieve the goal to further improve the effectiveness and co-ordination of aid and to increase the volume of aid. In terms of international sustainable development many challenges remain, including: to further develop the use of general budget support as an aid delivery mechanism; to tackle the growing challenge of environmental migrants and internally displaced persons; to increase Member State commitment to the EUWI and to the FLEGT initiative; to work towards an international environment governance system that can deliver sustainable development through the creation of a UN environment organisation (UNEO) and to ensure that trade policy contributes to sustainability notably through conducting sustainability impact assessments of all major EU trade policy initiatives and ensuring appropriate follow-up, both in terms of trade and non-trade measures and incorporating a robust sustainable development/environmental dimension in multilateral and regional/bilateral free trade agreement.

It is clear from the national reports that Member States are committed to actively promote sustainable development worldwide and ensure that the EU's internal and external policies are consistent with global sustainable development. However, this is a very broad objective, and Member States tend to focus more on specific challenges or geographic regions that are particularly important to them. Increasing aid and intensifying cooperation and coordination of aid is clearly essential if the EU is to make a marked contribution to achieving the MDGs.

9. CROSS CUTTING POLICIES CONTRIBUTING TO THE KNOWLEDGE SOCIETY

9.1. Education and Training

9.1.1. Objectives

- Education is a prerequisite for promoting the behavioural changes and providing all citizens with the key competences needed to achieve sustainable development. Success in reversing unsustainable trends will to a large extent depend on high-quality education for sustainable development at all levels of education including education on issues such as the sustainable use of energies and transport systems, sustainable consumption and production patterns, health, media competence and responsible global citizenship.
- Education can contribute to greater social cohesion and well-being through investments in social capital and by ensuring equal opportunities, citizens’ participation especially of disadvantaged groups to achieve a higher degree of awareness and understanding of the complexity and many interdependencies in today's world. Education that provides women and men with competences that increase their employability and lead to high quality employment is also key in strengthening the competitiveness of the EU.
- On the basis of the Communication "2010 - A European Information Society for Growth and Employment", the Commission and Member States should address issues such as equal opportunities, ICT skills and regional divides.

- In the context of the UN Decade of Education for Sustainable Development (2005-2014), Member States could further develop their national action plans, making in particular use of the “Education and training 2010” work programme, whose objectives are focused on quality and relevance, on access for all and on the openness of systems and institutions to society and the wider world. Member States could develop education for sustainable development and targeted training for professions in key sectors such as construction, energy and transport. Special attention should be devoted to teacher training. They should also implement the UNECE Strategy for Education for Sustainable Development adopted in Vilnius in 2005. Education for sustainable development should also be promoted at EU level. The European Parliament and the Council will adopt an integrated action programme in the field of lifelong learning for 2007-2013 in 2006.

9.1.2. *State of Play*

The EU SDS regards education as a pre-requisite for promoting behavioural change and providing all citizens with the key competences needed to achieve sustainable development. It states that "success in reversing unsustainable trends will to a large extent depend on high-quality education for sustainable development at all levels of education."

The Education and Training 2010 work programme is the policy framework for European actions in education and training. Within this framework Member States have agreed on five key benchmarks to be met by the year 2010. The latest progress report on the Education and Training 2010 Programme showed that there is still much to do in order to approach the set targets. Three of the five European benchmarks concern compulsory education:

- reducing the number of early school leavers (present EU rate: around 15.1% (2006) 2010 benchmark: below 10%)
- increasing the literacy level of 15 year olds (EU rate of low achievers: 19.8% (2003) 2010 benchmark: 15.5%)
- boosting the levels of upper-secondary completion (present EU rate: 77.5% (2005) 2010 benchmark: 85%). It is at this formative stage in life when the skills and competences that are essential for successful lifelong learning are built up.

One key element of the Education and Training 2010 Programme is Member States' commitment to have coherent and comprehensive national Lifelong Learning strategies in place by the end of 2006. All Member States have been working towards this objective. Adult participation in LLL will need to be raised (present EU participation rate: 10.2% (2005) 2010 benchmark: 12.5%).

The fifth benchmark addresses the need to increase the number of graduates in science, maths and technology, and to redress the gender balance in these fields. Actions to drive forward to reach these targets will therefore be key in the evaluation of national reports on Education and Training 2010 during 2007.

Education and Training 2010 is also a privileged means for exchange of experiences and good practices. A focused and coherent programme of peer learning activities is a priority in the implementation of this work programme. Peer learning activities concentrate on those areas where reforms are most needed: higher education; teachers and trainers; making best use of resources; maths, science and technology; access and social inclusion in life long learning

(LLL); key competences; ICT and recognition of learning outcomes. Indicators and benchmarks will help monitor progress and support the identification and exchange of good policy practices.

Active citizenship is an essential element of both the EU SDS and the Lisbon Strategy towards the creation of social cohesion, putting the spotlight on democratic and European values, participation in democracy and civil society. The Commission is supporting the development of new surveys in order to have data available by 2010. The Commission research project, "Active Citizenship for Democracy", run by the Centre for Research on Lifelong Learning (CRELL)⁸⁶ in cooperation with the Council of Europe and in conjunction with a network of researchers across Europe⁸⁷ has completed exploratory research to measure the concept of active citizenship by creating a composite Indicator. Active citizenship has been defined by this project as: Participation in civil society, community and/or political life, characterised by mutual respect and non-violence and in accordance with human rights and democracy⁸⁸. Thus active citizenship does not focus solely on the political aspect. It ranges from cultural and political to environmental activities, on local, regional, national, European and international levels.

9.1.3. Key EU Policies

Objective 1 - Education on Sustainable Issues such as Energy, Transport and Health

Environmental learning and education for sustainable development have consistently been a theme of interest for the Commission's Programmes, particularly the **Leonardo da Vinci programme**⁸⁹, the **Comenius action**⁹⁰ and the **Grundtvig adult education action**⁹¹.

Objective 2 - Competencies to Increase Employability

The new **Lifelong Learning Programme** was adopted in October 2006⁹². Its first call for proposals was published in December 2006 with the first wave of projects being contractualised by October 2007. The education and learning elements within the Structural Funds for 2007-2013, will ensure that education and training issues are well taken into account by the most important EU funding instruments.

A recommendation of the European Parliament and the Council on Key Competences for Lifelong learning was adopted in December 2006⁹³. In this recommendation it was stressed that "As globalisation continues to confront the European Union with new challenges, each citizen will need a wide range of key competences to adapt to a rapidly changing and highly interconnected world." Every citizen should acquire these competences through education in

⁸⁶ Measuring Active Citizenship in Europe (2006).

⁸⁷ The CRELL project Active Citizenship for Democracy which began September 2005 leads a research network of interdisciplinary eminent researchers from across Europe on this topic including international data providers. This project has been run in cooperation with the Council of Europe.

⁸⁸ Hoskins (2006) framework for the development of indicators on active citizenship.

⁸⁹ http://ec.europa.eu/education/programmes/llp/leonardo/index_en.html

⁹⁰ http://ec.europa.eu/education/programmes/llp/comenius/moreabou_en.html

⁹¹ http://eacea.ec.europa.eu/static/en/overview/grundtvig_overview.htm

⁹² Decision No.1720/2006/EC.

⁹³ Recommendation (2006/962/EC).

order to be equipped with the greater degree of personal responsibility and autonomy needed to cope with the challenges of the 21st century, including sustainable development.

The Commission adopted the proposal for a **European Qualifications Framework** on 5th September 2006⁹⁴. The EQF has two principal dimensions - lifelong learning and mobility - supporting individuals in combining qualifications from different systems and encouraging their mobility across Europe. This framework will act as a translation device and a reference point for comparing qualifications, facilitating their transferability, transparency and recognition throughout Europe, and creating a more sustainable basis for education and training in Europe.

The Commission Communication - "It is never too late to learn!" calls on Member States to promote adult learning in Europe as an essential part of lifelong learning policies⁹⁵. The pressures of demographic change, globalisation and the emergence of newly industrialised and highly competitive countries mean that no country can afford to neglect the adult learning sector. The Commission will work with the Member States to produce an **Action Plan on Adult Learning in 2007**.

The Commission Communication "**Fostering entrepreneurial mindsets through education and learning**" adopted in February 2006 considers entrepreneurship as the acquisition of basic business skills, and at the same time the development of personal qualities and skills, fostering creativity, self-confidence, team work, responsibility and initiative. These skills are important for addressing sustainable development challenges. In addition, existing policy instruments relevant for sustainable development are being strengthened and developed.

The **Copenhagen Process**⁹⁶, which is concerned with vocational education and training (VET), has focussed on developing tools and instruments for VET, such as the European Network on Quality Assurance in VET and the European Credits in VET. The European Youth Pact – adopted by the 2005 Spring Council as an integral part of the Lisbon Strategy – aims at integrating young people fully into society, through amongst other things, improving employment opportunities.

Objective 3 - Equal Opportunities, ICT and Regional Divides

With regard to cooperation in ensuring respect for cultural diversity, several developments can be reported. Following a proposal by the Commission, the European Parliament and the Council adopted in December 2006 a Decision concerning the European Year of Intercultural Dialogue (2008). The overarching objective of the Year will be the promotion of intercultural dialogue as a means to allow all to live better together within the EU; and to reinforce active citizenship, openness, respect for cultural diversity and support for common European values.

The **CULTURE Programme** entered into force in January 2007 for a seven-year period. The general objective of the programme shall be to enhance the cultural area common to Europeans through the development of cultural cooperation between the creators, cultural players and cultural institutions of the countries taking part in the programme, with a view to encouraging the emergence of European citizenship. The specific objectives of the

⁹⁴ http://ec.europa.eu/education/policies/educ/eqf/index_en.html

⁹⁵ COM(2006) 614.

⁹⁶ Doc 13137/02.

programme are promoting the transnational mobility of people working in the cultural sector, encouraging the transnational circulation of works and cultural and artistic products, as well as the intercultural dialogue.

The UNESCO **Convention on the Protection and Promotion of the Diversity of Cultural Expressions** entered into force on 18 March 2007. Negotiated jointly by the European Commission, on behalf of the Community, and the Council Presidency on behalf of the Member States, and adopted in October 2005, the Convention is the first of its kind in international relations, as it enshrines a consensus that the international community has never before reached on a variety of guiding principles and concepts related to cultural diversity.

Objective 4 - National Action Plans, Teacher Training and UN Decade of Education for Sustainable Development

The Communication on a **European agenda for culture** in a globalizing world was adopted on 10 May 2007. This is a strategy document which proposes three sets of objectives: promotion of cultural diversity and intercultural dialogue in Europe, promotion of culture as a catalyst for creativity and innovation in the context of the Lisbon Strategy for jobs and growth, and of the cultural dimension of the EU's external relations. The new strategy proposes a co-operative approach between the Commission and Member States. This Open Method of Coordination involves agreeing on the common objectives and regularly following up progress towards them.

The Commission is a member of the UNECE Education for Sustainable Development (ESD) steering group to support the work of the UN Decade for Sustainable Development 2005 to 2014. In this context it contributes to international cooperation to foster a better understanding of the challenges and exchange best practice.

9.1.4. Member State Actions

Objective 1 - Education on Sustainable Issues Such as Energy, Transport and Health

Member States retain the primary responsibility for policies in the field of education and training and underpin the importance of education at all levels including education on issues such as the sustainable use of energies and transport systems, sustainable consumption and production patterns, health, media competence and responsible global citizenship. The results of a recent study on Active Citizenship⁹⁷ show that a large number of activities and projects managed in Member States had a focus on fostering SD in teaching or raising awareness for this topic. The study aimed to explore all possible facets of active citizenship education by choosing a highly varied sample of examples, including all target groups, both in terms of age and socio-economic features, and all types of education.

Many Member States undertake a large amount of work in this area, including:

- Spring, summer and autumn schools in Spain which include green activities held in parks, etc; environmental open days and workshops and courses with topics to encourage people to act in an environmentally friendly manner;

⁹⁷ http://ec.europa.eu/education/doc/reports/index_en.html.

- Austria introduced a model for awareness raising measures in pre-schools and primary schools;
- Eco-units in schools in Poland;
- Green awards in schools throughout the UK;
- A three year project was launched in Sweden to make sure that school activities were sustainable, that pupils contributed to a long term sustainable society, the development, testing and evaluation of sustainable development procedures, methods and tools to allow knowledge to be shared within schools, both nationally and internationally.

Objective 2 - Competencies to Increase Employability

Some Member States have linked this to Objective 1 of this theme, with workshops, courses and information days. In addition, others have been more specifically pro-active, such as including sustainable development issues in training programmes, inclusion of life-long learning in policy documents and networks of professionals working together to transfer knowledge and experience to students (eg AT, PT).

Objective 3 - Equal Opportunities, ICT and Regional Divides

In view of research and development, the EU SDS also asks for the promotion of partnerships between business and schools, at local and regional level, to create a context of encouragement and support. It is crucial to take into account social and environmental responsibilities of small businesses as well as larger enterprises on local and regional level and in the Community at large and make it part of school reality (eg FR, PT).

Objective 4 - National Action Plans, Teacher Training and UN Decade of Education for Sustainable Development

Some of the Member States have introduced a national implementation plan or strategy for ESD together with guidelines how to achieve the objective and how to integrate the essential elements needed for building a sustainable future (eg DK, FI). Key challenges which are addressed vary from environmental topics to more holistic concepts allowing socio-economic and ethical perspectives. Several countries are very well positioned and provide effective national steering based on the UN's European Strategy for Education for Sustainable Development. ESD is also part of their in-service training and teacher and trainers are involved in networking activities in ESD and websites and discussion fora or round tables and award schemes for projects are largely implemented.

9.1.5. Conclusions

The EU has demonstrated its commitment to continued co-operation on education for sustainable development issues and to engage at bilateral and multilateral level in order to foster ESD and to tackle further challenges in a sustainable manner. The Commission's Programmes have contributed appreciably to developing innovation and sharing good practice across the participating countries, and thereby help to achieve the educational policy objectives which the Union and the Member States have set themselves. The ongoing

evaluation of the 2000-2006 generation of these programmes, which will be finished shortly, will provide quantitative and qualitative evidence about their impact.

Cooperation and partnerships between Member States is helping to create an integrated environment in which ESD can be promoted. Further efforts will have to be made to strengthen the effectiveness of actions and activities. Difficulty in some Member States has risen from the misunderstanding of the term sustainability and its relevance to social, economic and environmental issues.

Within the Commission and Member States the framework for educational sustainable development is good. Work is still required to put this framework into action and deliver the required objectives, including conveying relevant messages to the public. In all Member States there is a need to make optimal use of results and lessons learnt, including:

- Further need for dialogue and exchange to share experience and disseminate results on specific SD challenges, especially as structured communication and more dialogue between European, national and local governance levels makes it possible to anticipate and assess the impact of measures taken at the one level on another level.
- Closer cooperation between public sector, private sector and education institutions for building networks and alliances with respect to all aspects of sustainable development.
- The link with the Lisbon Strategy needs to be emphasized more and with it the need for schools and higher education to open up to society, to take on the responsibility for the implementation of ESD and fostering a favourable climate.
- The development of education quality assessments including criteria on ESD.

9.2. Research and Development

9.2.1. Objectives

- Research into sustainable development must include short-term decision support projects and long-term visionary concepts and has to tackle problems of a global and regional nature. It has to promote inter- and transdisciplinary approaches involving social and natural sciences and bridge the gap between science, policy-making and implementation. The positive role of technology for smart growth has to be further developed. There is still a strong need for further research in the interplay between social, economic and ecological systems, and in methodologies and instruments for risk analysis, back- and forecasting and prevention systems.
- It is key in that regard to ensure effective implementation of the 7th Framework Programme of the European Community for research, technological development and demonstration activities, involving academia, industry and policy-makers and to advance the implementation of the Environmental Technology Action Plan.
- For better understanding of interlinkages between the three dimensions of sustainable development, the core system of national income accounting could be extended by inter alia integrating stock and flow concepts and non-market work and be further elaborated by satellite accounts e.g. environmental expenditures, material flows and taking into consideration international best practices.

- Universities, research institutes and private enterprises all have an essential role to play in promoting research that supports efforts to ensure that economic growth and environmental protection reinforce each other. Universities and other higher education institutions have a key role in providing education and training that equip the qualified workforce with the necessary competences to fully develop and exploit sustainable technologies. They should also contribute to low environmental impact management through interdisciplinary approaches and by building on existing networks. Creation of partnerships and cooperation between European and third country universities and higher education institutions, encouraging networking and peer learning, should be promoted.

9.2.2. *State of Play*

The role of research and technological development is significantly important in helping to translate the key SD challenges into concrete action.

In 2002, the Barcelona European Council set the EU a target of increasing R&D expenditure to 3% of GDP by 2010, and all EU-25 countries have now set national targets.

The Innovation, Competitiveness, and Eco-Efficiency indicator is defined as gross domestic expenditure on research and experimental development (GERD) as a percentage of GDP. GERD includes expenditure from business enterprise, higher education, government and private non-profit expenditure in R & D. This is relevant as R & D aims to increase the stock of knowledge and the use of this stock to devise new applications⁹⁸. New technologies and organisational techniques are necessary complements to changing behaviour to achieve the shift towards a sustainable society. Research is also needed to identify the unsustainable trends, measure them, and investigate how they can be addressed as effectively as possible. Experimental development is crucial to transform knowledge into an operational mode in order to make changes happen.

From 1995 onwards, the share of gross domestic expenditure on R&D in the GDP remained fairly stable in the EU-15, rising from 1.85% in 1995 to 1.92% in 2000, down to 1.91% in 2005. In the EU-27, the share decreased from 1.86% in 2000, to 1.84% in 2005. This still represents a distance of more than 1 percentage point to the 2010 3% target, implying that national R & D investment targets are likely to remain out of reach for most Member States. Only Finland and Sweden had more than 3% of GDP as expenditure for R & D in 2006. The new Member States are still lagging behind, the lowest shares being found in Romania with 0.39% in 2004, and Cyprus with 0.40% in 2005 (see country breakdown on the SDI website).

9.2.3. *Key EU Policies*

Objective 1 - Research into Sustainable Development... Positive Role of Technology

R&D support to short-term policy-making is provided in areas such as sustainable consumption and production, sustainability impact assessments, indicators and risk governance for example in the use of nano-particles. Monitoring activities such as the **Global Monitoring for Environment and Security (GMES)**⁹⁹ or the **Earth Observation (EO)**¹⁰⁰

⁽⁹⁸⁾ Proposed standard practice for surveys on research and experimental development (Frascati Manual), sixth edition, OECD (2002), Section 6.3.

⁹⁹ <http://www.gmes.info/>

¹⁰⁰ <http://www.eoportal.org/>

also support policy-making. Research on the management of natural resources and the governance of sustainability is supporting the integration of environmental concerns into other policy areas, on EU, national and regional/local levels. Foresight exercises like "Foresighting food, rural and agri-futures" identifying climate change as a major disruption scenario provide long-term orientation for research priorities. Research undertaken by the **Joint Research Centre (JRC)**¹⁰¹ is also geared towards the objectives of growth, sustainable development and security through the development and provision of scientific and technical support to the relevant EU policy items. The international dimension is embedded in all thematic areas to reflect the interdependence of European efforts towards the sustainability transition with choices and actions in other parts of the world.

The **positive role of Technology for smart growth** is a driving principle of research in the field of NanoSciences, NanoTechnologies Materials and New Production (NMP) and the field of Information and Communication Technologies (ICT). It contributes to the transformation of the EU industry from resource-based to a knowledge-based industry and aligns the three pillars of Sustainable Development.

Objective 2 - 7th Framework Programme Implementation

The **7th RTD Framework Programme (2007-2013)**¹⁰² has a strong ability to respond to the challenges of sustainable development in a variety of ways. In the first year of implementation (2007), 40% of the cooperative research actions are directly or indirectly related to the EU SDS challenges. The increased budget and the prolonged time-frame provide a robust framework to pursue this strategic approach. In addition, the new Joint Technology Initiatives (JTIs)¹⁰³ take the public-private partnerships one step forward. A first example is the JTI Clean Sky. The JTIs will develop strategic agendas to increase performance of industry in areas such as renewable energy (hydrogen and fuel cells), and the GMES. **Technology Platforms** will continue the work to join up stakeholders to define and plan strategic research agendas in a diverse range of fields, including for example new Sustainable Transport Systems, sustainable chemistry, and food for life. Social platforms are also being developed in the context of social science for sustainable development, for example concerning cities and social cohesion. Fifteen Technology Platforms are related directly to climate change and clean energy challenges.

The various EU SDS challenges can strongly benefit from continued **ERA-NET activities**¹⁰⁴ aiming at strengthening the coordination of public research programmes carried out at national or at regional level, achieving critical mass and joining forces to provide common answers to common problems, such as climate change, biodiversity, and sustainable enterprise. Fourteen ERA-NETs aim at pooling together national programmes dealing with SDS challenges.

¹⁰¹ The multiannual work programme (MAWP) of the Joint Research Center for the years 2007-2013

¹⁰² The first Calls for Proposals under the Seventh Framework Programmes (FP7) for the EC and Euratom were launched on 22 December 2006 with an overall budget of ca €4,2 billion. These were complemented by a second wave of calls in the first months of 2007 with an additional budget of more than €160 million. The Commission is currently finalising the necessary procedures for a substantial increase of the overall budget of these calls.

¹⁰³ <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/191>

¹⁰⁴ http://cordis.europa.eu/fp7/coordination/eranet_en.html

The **Research Infrastructure part of FP7** provides robust facilities for implementing research on sustainable development, through integrating existing observation and monitoring stations for polar research, establishing infrastructure networks for water resources research, establishing a European e-infrastructure for earth's system understanding and modelling, and integrating research infrastructures for next generation bio-fuels and solar power research. New research infrastructures will be built in fields such as sustainable use of biodiversity, as well as global observation systems related to climate change and oceans.

The **Environmental Technology Action Plan (ETAP)**¹⁰⁵ will continue to keep Europe at the forefront of eco-innovation. In this context, work on an Environmental Technologies Verification System is progressing. There is evidence that lack of verification continues to hamper access to new environmental technologies. We are currently in the process of defining the basis of a scheme in the areas of water treatment, soil remediation and air pollution, and aim at an international recognition of different technology verification systems. A second area of action in support of ETAP concerns **eco-innovation**, in particular through measuring eco-efficiency, improving our understanding of innovation dynamics, developing innovative funding schemes for environmental technologies.

Preparation of a **European Strategic Energy Technology Plan** (to be adopted in 2007) is to strengthen and give coherence to the overall effort in Europe, with the ultimate goal of accelerating the development and global market take-up of cutting edge European low carbon technologies. The Commission will further pursue its efforts for putting R&D at the service of sustainable development with a view to fully exploiting the synergies between the Lisbon Strategy for growth and jobs and the EU SDS.

Objective 3 - National Income Accounting

The sixth RTD Framework Programme (FP6) already contributed with decisive work to support the development of the 2005 set of SDIs and integrated impact assessment. In particular, projects have improved existing general equilibrium and econometric models; developed new concepts and improved data for the calculation of selected indicators; tested different methods for extending indicators time series through forecasting; reviewed emerging policy areas; and identified the most effective combinations of environmental, economic and social policy measures, focussing on maximizing synergies and minimizing trade-offs. Research will allow for the identification and impact assessment of sustainability options at the micro, meso and macro levels.

EU-level research has the particular advantage of being able to develop Europe-wide access to interconnected multi-disciplinary digital data depositories, to develop a culture of data sharing and to employ the multiple perspectives needed to understand complex issues. Socio-economic and scientific indicators will be further developed, with a view to bridging mainstream indicators of economic performance with sustainable development objectives.

Research will also be mobilised to support the development of the set of SDIs.

Objective 4 - Universities, Research Institutes and Private Enterprises, Education and Training

¹⁰⁵ http://ec.europa.eu/environment/etap/index_en.htm

European Universities currently face difficulties to generate high standards of cutting-edge research and become powerful catalysts for innovation. The potential of European University-based research is thus underused, including when it comes to sustainable development. The European Commission has been working, with the Member States and the Universities themselves, to **promote the necessary reforms** in European Higher Education Systems to reverse this situation. The end result of this "**Modernisation Agenda**"¹⁰⁶ should be excellence in the whole system, with European universities more responsive to the needs of society and economy.

While not directly focused on addressing issues only relevant to sustainable development, the "Modernisation Agenda" places a key focus on the ability of universities to better respond to the needs of society, and therefore also contribute to SD. Indeed, in the face of increasing public attention to SD issues, to the extent that universities address matters pertinent for society, they are expected to increasingly educate graduates and train researchers in fields significant for SD. In fact, FP7 devotes increased importance to strengthening the linkages between the **European Research Area** (ERA) and the research systems of non-European countries. As traditionally important partners of Research Framework Programmes, universities in Europe and partner countries have thus extra incentives to address SD.

Within this context, it is important to point out that for the first time responsibility for international cooperation is now vested in all the Specific Programmes of the 7th Framework Programme and third country participation in collaborative research projects is actively promoted throughout. This holds great potential for expanding and making more sustainable the partnerships and cooperation created between the EU and third country research institutions under the specific international cooperation actions of the previous research framework programmes. This new initiative in FP7 promotes more than ever the networking and exchange of scientists and investments in human and social capital around the world.

Investment in research of the private sector is encouraged at EU level, to reach the Barcelona objective. In order to stimulate this investment (ie **Business Expenditure on R&D, BERD**), the Commission has developed guidelines on the use of tax incentives and public procurement to boost BERD and is continuing to raise awareness in Member State governments and business communities of the potential of these instruments. In addition the Commission has revised its framework on State Aid to allow for support for R&D and innovation activities and is promoting the role of foundations as sources for research funding.

9.2.4. Member State Actions

Objective 1- Research Into Sustainable Development... Positive Role Of Technology

For Member States, overall there is a limited linkage to the EU SDS. However, national research policies are putting research at the service of the 7 key challenges, and in particular the first of them, ie climate change and clean energy. Hence, the contribution of research to sustainability can be seen as one of the driving forces of the European Research Area, and it is important to exploit synergies between FP potential for sustainability and these national research efforts aiming at the same objective.

¹⁰⁶ COM(2006) 208.

For example, in Germany, there is a "Research for Sustainability" (FONA) programme, which makes sustainability a specific target of research funding. In Sweden, research in support of sustainable development has been a priority area for the 2005-2010. In Estonia, the environmental sustainability has also been set as one of the most important criteria for research funding. Netherlands is particularly interested in risk analysis, back – and forecasting, and research on coherence between economic, ecological and social dimension of sustainability. France and Denmark are also prioritizing research focusing on sustainable development.

Objective 2 - 7th Framework Programme Implementation

Most Member States have described their positive promotion of FP7 and their expectations of the programme's R&D capabilities (eg FI, PT, UK). In general, Member States have networks of national contact points for FP7 and are members of specific thematic groups, eg energy, health, ICT, etc. Some Member States have prioritised action for environmental R&D and development of eco-efficient products and environmentally efficient technologies (eg DK, DE, UK).

This confirms the important leverage effect of the Framework Programmes in the area of sustainable development research. Furthermore, this could help to arch over the gap between countries that are very experienced in the field of research for sustainable development (integrated approach, cross-cutting issues, interdisciplinary etc) and countries that have started to deal with those issues recently.

Objective 3 - National Income Accounting

Some Member States have drawn up SD R&D indicators (eg FR) specifically following on from undertakings within the FP6 programme. Some states have stated that continuous work is being undertaken on satellite accounting systems of their national accounting systems covering issues such as materials flow analysis (eg AT).

Objective 4 - Universities, Research Institutes and Private Enterprises, Education and Training

Most Member States encourage close involvement of the private sector in R&D programmes and some have Centre of Excellence programmes (eg FI, UK) which focus on international expertise from all areas, including academic, public and private sector. Some Member States take this further by having specific actions within their National Technology Plan and by promoting Science and Technology Networks on an international basis (eg PT, UK). Industry training, management, labour organisations and public sector bodies also play a key role in this objective for Member States (eg DE).

9.2.5. Conclusions

The need to strengthen Research and Technological Development is recognised in helping to translate the key challenges and objectives of the EU SDS challenges into action, and to promote a forward-looking and integrated approach. The Seventh RTD Framework Programme (FP7), launched on January 1 2007, is tailored to allow EU research to live up to these pervasive and multifaceted expectations. Indeed, the Programme "should contribute towards promoting growth, sustainable development and environmental protection, including

by addressing the problem of climate change"¹⁰⁷. It is explicitly recognized that the overarching aim of the specific "Cooperation" programme is to contribute to sustainable development. All Member States have actions in place to promote and develop R&D under the 7th Framework although the specific link back to the EU SDS strategy is not always recognised. Additionally, the Commission has developed guidelines on the use of tax incentives and public procurement to boost investment in research by the private sector and has revised its framework on State Aid to support for R&D and innovation activities.

10. FINANCING AND ECONOMIC INSTRUMENTS

10.1. Objectives and Key Policies

Objective 1 - The most appropriate economic instruments should be used to promote market transparency and prices that reflect the real economic, social and environmental costs products and services (getting price right). Their potential to reconcile environmental protection and smart economic growth and exploit win-win opportunities should be recognised.

Actions at EU Level

In March 2007, the Commission published a Green Paper on market-based instruments for environment and related policy purposes¹⁰⁸. The Green Paper concludes that there should be an increased use of market-based instruments (such as trading schemes, taxes and subsidies) to achieve environmental and other policy objectives, both at Community and national levels. By influencing prices (through taxation or incentives), or setting absolute quantities (emission trading), or quantities per unit of output, market-based instruments implicitly acknowledge that firms differ from each other and therefore provide flexibility that can substantially reduce the costs of achieving given policy objectives. The areas where market-based instruments can be further promoted are in particular energy, transport, water management, waste management, protection of biodiversity and reduction of air pollution. This paper suggests streamlining and developing the Energy Taxation Directive so that energy taxation in the EU would promote energy efficiency and environment-friendly energy consumption more effectively than is currently the case. The Green Paper suggests a wider application of green tax reforms at the Member State level to reduce the tax burden on productive activities, labour in particular, and increase it on pollution and resource use. Several EU Member States have already applied green tax reforms, or are planning to do so.

As it is within the transport sector that disconnection between prices and real economic, social and environmental costs creates acute inefficiencies, the Commission has made a proposal for a Council Directive on passenger car taxation¹⁰⁹, which suggests, inter alia, including a CO₂ element into the tax base of both registration and annual circulation taxes of passenger cars. Such taxes would promote the purchases of fuel efficient cars and thus provide a strong incentive to car manufacturers to bring such vehicles to the market contributing in this way to reduce the CO₂ emissions of the transport sector. In addition, the Commission adopted the commercial diesel proposal proposing to complete the alignment of the minimum rate of

¹⁰⁷ Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for Research, Technological Development and Demonstration activities (2007-2013) - whereas 29.

¹⁰⁸ COM(2007)140 final.

¹⁰⁹ COM(2005) 261.

diesel to the rate of unleaded petrol by 2012. This allows to take into account the similarly detrimental effect of both fuels to the environment and to immediately offer more flexibility to Member States to differentiate between commercial and non-commercial gas oil rates through the introduction of road charges while maintaining the fiscal burden constant.

To achieve the EU SDS energy and climate objectives, the Green Paper highlights the role of emission trading as complementary to the taxation instruments. The EU ETS started successfully on 1 January 2005 accounting for around 45% of the EU total CO₂ emissions and the European Commission is currently finalising the assessment of the National Allocation Plans for the 2008-2012 phase. The EU ETS, by introducing a price-based incentive linked to CO₂ emissions, is designed to induce energy and carbon efficiency improvements and savings, increase the competitiveness of low GHG emission technologies and improve the potential return on investment of R&D in carbon-neutral technologies. Actually, the obligations created by the EU ETS to purchase allowances for any emissions that are not covered by the initial allocation has already created a visible price of CO₂. As transactions on this market have totalled €14.6 billion in 2006, there is now a non trivial opportunity cost of CO₂ emission that is incorporated in investment and production decisions. Furthermore, when, in May 2006, market players were made aware of the higher than initially expected supply of allowances for 2005, the CO₂ allowance price fell and so did wholesale electricity prices. As power generators are the largest emitters covered by the scheme and as no other energy market movements affected electricity prices at this period, the electricity price adjustment can be attributed to a pass-through of the price of emissions into electricity prices. The forecasted price of future period allowances creates a positive option value for new patterns of investments and some energy-intensive industries are starting to explore new business models, like investment in self-generation capacities or risk sharing with power generators.

Actions at Member States Level

It is still common practice at national level to streamline existing economic and financial instruments, rather than seeking to use tradable market allowances despite their comparative advantages on other instruments. Nevertheless, Sweden has developed the expertise to model external costs of transport and to differentiate airport infrastructure charges to be able to push for minimising the environmental damages triggered by air transport. Malta has introduced a "marketable permits" scheme with regards to air and land pollution, to signal the link between pollution and health in economic terms. Ireland promotes the extension of the EU Emission Trading scheme to international maritime and air transport pledging for the use of the most economically efficient approach to better reflect the costs to societal welfare of transport without unduly distorting competition and international trade.

It is also worth noting that Member States are often complementing their policy mix with relevant economic instruments benefiting from the positive experience of other Member States: Luxembourg is introducing an additional excise duty on fuel to come closer to average European taxation levels; Romania has set up a deposit-refund scheme to implement the EU directives on packaging waste. Considering its proven efficiency in other national contexts, the Czech Republic is introducing a toll systems on highways in 2007, Hungary is preparing for 2008-2009 a new road fee system, based on infrastructure use by freight transport and the Slovak Republic considers introducing, in 2009, a tax based on driven distance, on vehicle characteristics, and on impact of infrastructure usage.

Objective 1 (continued) - additionally, the suitability of economic instruments should be judged against a set of criteria, including their impact on competitiveness and productivity

Actions at EU Level

The EU SDS advocates better regulation and policy integration to ensure institutional processes are conducive to the EU SDS objectives. The use of impact assessments is now an entrenched practice of policy design at EU level. Impact assessments of policy proposals inform political decisions at all level of intervention and at all stages of policy development. As an example, EU's climate change policy is based upon the cost-benefit assessment of the cost of inaction against the risk of irreversible damages of climate change going beyond +2 degrees Celsius. Similarly, the magnitude of environmental and economic benefits of the targets set by the End of Life Vehicle Directive for 2015 have been estimated to ensure that the maximal mutual benefits for economic growth and environmental protection are captured.

Actions at Member States Level

Member States have made use of financing and economic instruments balancing their consequences on particular groups or regions and reconciling better environmental protection, social equity, cohesion and economic prosperity. For example, UK and Germany run programmes supporting energy efficient social housing to have lower income groups benefit from national effort towards delivering the EU SDS objectives; the rural development plan of Cyprus is offering financial incentives to reward farmers who do not abandon agricultural land in mountainous areas, as their activity preserves the country's natural capital and Latvia compensates forest owners and fishermen for the adaptation of their activity necessary to the conservation of critical biological diversity, and to distribute the costs of sustainable management of natural resources.

Objective 3 - Member States should consider further steps to shift taxation from labour to resource and energy consumption and/or pollution, to contribute to the EU goals of increasing employment and reducing negative environmental impacts in a cost-effective way. In this context, the Commission should gather relevant information by 2007.

Environmental taxes are used in all EU-27 Member States. The highest environmental tax-to-GDP ratios are found in Denmark at 5.8% and in the Netherlands at 4% of GDP in 2005, while the two lowest ratios are those of Spain and Lithuania at around 2% in 2005. The (weighted) EU-25 average was 2.7% in 2005.

The high level of environmental tax revenues does not necessarily indicate the "environmental friendliness" of overall fiscal policy. Some categories of environmental taxes (e.g. taxes on transport fuels and car registration) have traditionally been used purely for fiscal purposes, because they offer a stable source of tax revenues. On the other hand, if environmental taxes act, as they should, as an efficient incentive to reduce the use of environmentally harmful goods, they gradually erode the tax base leading to a fall of tax revenues. The use of tax breaks and tax differentiation to promote the use environmentally friendly goods and processes would have a similar impact.

Despite the environmental tax reforms undertaken in many EU Member States over the last decades, the trends in tax revenues do not display any clear-cut shift from labour to environmental taxes at the EU average level¹¹⁰. The share of environmental taxes out of total

¹¹⁰ Taxation trends in the European Union. Data for the Member States and Norway 2007 edition.

tax revenues in the EU (weighted average) display a decreasing tendency over the whole period, while the share of labour taxes (weighted average) decreases from 1995 to 2000, increases thereafter until 2003 and then slightly falls again between 2003 and 2005¹¹¹. The arithmetic averages show, however, a somewhat different picture. The share environmental taxes is rising, albeit modestly, and the share of labour taxes shows a slight falling tendency from 1998 onwards. The comparison of these two averages reveals that the trends have been quite different in different Member States, in particular between big and small Member States (since big Member States dominate the trends based on weighted averages).

The share of environmental taxes has been decreasing in many big Member States, which explains the decreasing trend of the weighted average figure. Several countries in the upper left quadrant display a shift from labour taxation towards the environment (eg DK, DE, NL, FI, AT, EE, LV, PL, SL). These countries include several old Member States and a number of new Member States, for which the tax shift is partly an outcome of the accession process, but which also have carried out deliberate measures to reduce taxes on labour and increase those on the environment. An increase of the relative share of labour taxation and the decrease of that of environmental taxation can be observed in the countries included in the lower right quadrant (eg CZ, EL, IT, PT).

The sluggish tendencies of environmental tax revenues in many of the EU Member States could be explained by the fact that they might not have been indexed or regularly augmented with inflation and therefore the real value of tax revenues was falling. There may be several reasons for the real value of environmental taxes erosion: first, it may simply be politically difficult to constantly increase the tax rates, in particular, on the products, which affect the energy costs of both households and industry. Secondly, the EU minimum tax rates on mineral oils were kept constant in nominal terms from 1992 until 2004, when the Energy Tax Directive (2003/96/EC) came into force, and did not compel any further increases in national tax rates. In the last few years the strong increases of oil prices may have caused political pressure to lower the tax burden on energy. Increased use of new forms of market-based instruments (that do not generally generate revenue for the general budget) might also be a contributing factor. In particular, the adoption of the EU emissions trading scheme since 2005 leaves less scope for energy taxation and may have been one more reason for the declining share of environmental taxes observed in many Member States in last few years especially as the initial allocation of allowances was not sold or auctioned but awarded for free.

Objective 4 - By 2008, the Commission should put forward a roadmap for the reform, sector by sector, of subsidies that have considerable negative effects on the environment and are incompatible with sustainable development, with a view to gradually eliminating them.

Actions at EU Level

By 2008 the Commission is expected to put forward a roadmap for the reform, sector by sector, of environmentally harmful subsidies (EHS). As preparatory work, a study was commissioned and delivered in March 2007 focusing on the definition of EHS, its quantification, arguments for the reform of EHS and on practical lessons for taking forward such reform. The report offers practical insights into subsidy reform drawing on existing literature, the knowledge and expertise of the contributors and a number of case studies that were selected and studied.

¹¹¹ See also the "Good Governance" chapter of the Eurostat Sustainable Development Indicators report.

Actions at Member States Level

Member States are revising and bringing in line with the EU SDS, the instruments that used to exacerbate the gap between prices and the real costs of goods and services. To name but a few cases, Slovenia is undertaking a reform reducing "non-sustainable" expenditures in the field of intensive farming, public transport and use of energy, gradually eliminating the price signals counteracting the EU SDS guiding principles. Belgium has also cancelled tax breaks in favour of least fuel efficient cars, which would have undermined its new fiscal incentives favouring the commuters adopting sustainable transport options as recommended by the EU SDS. The Netherlands and Finland have tightened the conditionality rules for receiving agriculture and forestry subsidies to exclude from support the practices improving productivity at the expense of degrading some natural resources like water or biodiversity pools.

Furthermore, Member States have reinforced the impact of several taxes and charges by streamlining the recycling of their revenues into subsidies delivering the EU SDS objectives. For example, Austria has increased its mineral oil tax for diesel and petrol, making use of the additional tax income of around EUR 440 million to finance regional infrastructures in favour of sustainable transport and adaptation to climate change. Likewise, Spain's action plan on energy savings and energy efficiency entails €730 million public investment over the period 2004-2012, where more than half of this investment is generated by a new electricity tariff reflecting better the social and environmental costs of electricity consumption.

Objective 5 - In order to ensure that EU funding is used and channelled in an optimum way to promote sustainable development, Member States and the Commission should co-ordinate to enhance complementarities and synergies between various strands of Community and other co-financing mechanisms such as cohesion policy, rural development, Life+, Research and technological development (RTD), the Competitiveness and Innovation Program (CIP) and the European Fisheries Fund (EFF).

Actions at EU Level

According to the general Regulation for cohesion and structural funds (1083/2006) the Commission appraises the proposed operational programmes to determine whether they contribute to the goals and priorities of the national strategic reference frameworks and the Community strategic guidelines on cohesion, which include environmental sustainability as a guiding principle.

Actions at Member States Level

All Member States try to coordinate their use of Community funding, EIB loan facilities, and national market-based instruments to minimise the strain on public finance of investments into EU SDS priorities. Some examples include: the Netherlands reinforced their front-runner position of the European industry in sustainable energy systems by relying on the combined effects of technology platforms financed by the EU Research Framework Programmes and national schemes; Bulgaria has created a dedicated "Energy Efficiency fund" coordinated with the EIB credit lines to kick-start the public-private partnerships that could eventually realise the economically viable energy savings identified as considerable in one of the most energy intensive economies of the EU; Lithuania is trying to mobilising a critical mass of the support granted by the EU Structural Funds to upgrade its national waste management capacity, to cope with the backlog of hazardous waste remaining in the country and to have waste recycling rates converge with European average values; Italy uses the Structural funds to deliver one of its national priority objective: activating the provision of eco-efficient energy services at regional level; and Poland also combines national and regional grants and loans to finance renewable energy projects. Member States also form coalitions to create larger leverage on their financial interventions: Germany, France, UK and Greece combined their development transfers within the strategic and operational framework of the EU Energy initiative and the EU Water Facility.

10.2. Conclusion – Priority Action for the Future

Economic and financial instruments provide strong and cost-effective incentives to reduce the detrimental impacts of socio-economic drivers on the environment. They create an integrated framework for economic decisions, socio-economic infrastructures and environmental capital, thus representing a key tool to make current consumption and production patterns more sustainable. Full use of economic and financial instruments, from more general incentives such as taxes and emission trading systems to more specific measures (financial support to R&D, innovation and demonstration on specific issues) will facilitate the socio-economic transition needed to fulfil the goals of the EU SDS. By 2008 the Commission intends to put forward a roadmap for the reform, sector by sector, of environmentally harmful subsidies.

The ERDF and Cohesion Fund are the Community's largest financial instruments providing significant financial support for the 2007-2013 period to key areas of the EU SDS such as climate change (€9 billion) and sustainable transport (€36 billion). Cohesion policy applies the sustainable development principles of both 'Involvement of citizens' and 'Policy coherence and governance', by including all stakeholders at all levels of government, as well as promoting coherent policy making across different sectors.

The EU Emissions Trading Scheme has demonstrated the capacity of emissions trading instruments to reflect better the real costs of goods and services. Nevertheless, the economic lifetime of investments in capacities covered by the scheme typically ranges from 20 to 40 years. Long-term certainty in the implementation of the ETS is therefore essential, if it is to fulfil its potential as a driver of technological change within the EU. Linking the ETS with similar schemes in other regions has the potential to become a major driver of global energy efficiency and productivity gains and maximise spillovers from EU-funded R&D and innovation.

At the average EU level the ratio of environmental tax revenues in relation to labour taxation has been static over recent years, indicating that there is much more scope for "greening" the

tax systems in most Member States. Moreover, this stock taking exercise demonstrates that in areas where no Community-wide instruments exists for achieving the common goals of the EU SDS, there is a large diversity in the use of economic and financial instruments in the Member States. So far, policies tend to favour a combination of sector-specific instruments over measures whose impacts cut across sectors. Different kind of tax exemptions for energy efficiency investments in the transport, the building and the manufacturing sector coexist in most national contexts, whereas different certificates of origin schemes are traded separately.

As these varied national measures may have cross-border effects, there might be a need, in some cases, for further Community co-ordination of the use of financing and economic instruments by Member States. In particular, the Commission proposals for a directive calling to re-structure passenger car taxation (COM/2005/261) and for a Council Directive amending Directive 2003/96/EC calling to coordinate of taxation of unleaded petrol and gas oil used as motor fuel (COM/2007/52) have identified significant potential of further use of market based instruments to foster growth, jobs and competitiveness and better protection for the environment.

11. COMMUNICATION, MOBILISING ACTORS AND MULTIPLYING SUCCESS

11.1. Objectives

- The Commission will mainstream sustainable development in its information, awareness raising and communication activities and continue, together with other Community institutions, to organise events and stakeholder meetings on the various strands of the strategy, to disseminate new ideas and exchange best practices. In this context the Commission should produce a layman's guide to this strategy, including good practice and good policies in Member States, to help increase public awareness of sustainable development.
- The Commission should elaborate a concrete and realistic vision of the EU on its way to sustainable development over the next 50 years.
- Member States have the key role in targeting communication to the most appropriate level.
- It is the overall aim to build sustainable communities in urban and rural areas where citizens live and work and jointly create a high quality of life. Approaches like Local Agenda 21 and other processes with broad public participation must be further strengthened and promoted. Municipalities, cities and towns should be invited to sign and implement the Aalborg Commitments.
- Promote the “European Sustainable Cities & Towns Campaign” which provides an exchange of good practice including the elaboration of quality criteria, indicators and instruments like impact assessment.
- Business leaders and other key stakeholders including workers' organisations and non-governmental organisations should engage in urgent reflection with political leaders on the medium and long-term policies needed for sustainable development and propose ambitious business responses which go beyond existing minimum legal requirements. In accordance with the European Alliance for Corporate Social Responsibility (CSR), awareness and

knowledge of corporate social and environmental responsibility and accountability should be increased.

11.2. Key Policies and Actions

The EU SDS can only work efficiently and effectively if it is appropriately communicated and implemented at all levels of society, including citizens, businesses and government. Good governance is an essential element of this relationship, ensuring that all key stakeholders work together towards a common purpose. Communication, early and often, is critical to the success of the EU SDS. Both EU and Member States have undertaken awareness events and specific issue conferences on topics such as climate change, transport and national health towards this goal.

The Commission has produced a layman's guide to Sustainable Development currently being published. The guide includes information on all the seven challenges of the strategy and provides information on key EU policies. It gives advice to citizens about how they may make their contribution to sustainable development. It will be distributed widely to citizens in all Member States and made available on the Commission sustainable development website.

Through approaches such as Local Agenda 21 (implementing SD at the local level) activities and Aalborg Commitments (shared European SD Commitments), the Commission has encouraged Member States to deliver sustainable development, set new targets and move from agenda into valuable actions. In addition, the Aalborg Commitments¹¹² pledge to strengthen urban sustainability and provide information on policy developments. In connection to this, the European Sustainable Cities & Towns Campaign provides an exchange of good practice in this sector. Many Member States have integrated this initiative into their master planning using sustainability toolkits for sectors such as governance, responsible consumption and local action for health. Alongside this, Member States have undertaken various initiatives for communicating the importance of sustainable development, including general SD awareness and conferences on specific issues such as climate change, transport and national health.

Companies and business leaders are beginning to realise the competitive advantage a sustainable approach to business gives them - their businesses can flourish and profitability increase. Top companies and business leaders around Europe have embraced the sustainable development agenda realising the competitive advantage this new approach to business gives them. The real commercial worth of sustainable development is seen in the Dow Jones Sustainability Group Index¹¹³, where companies regularly outperform those not included. New initiatives between business leaders are forming. The European Corporate Leaders group is an example of Chief Executive Officers (CEOs) coming together to convince top European policy leaders to set more ambitious objectives and targets and devise strategies in cooperation with business to deliver results. Other business groups are following suit and forming new networks that aims to address all 7 of the unsustainable trends covered by this strategy. The Commission encourages business to devise new business strategies that promote green investment, new eco-efficient production and marketing techniques catering for and actively educating consumers in sustainable consumption. The Commission proposes that in

¹¹² <http://www.aalborgplus10.dk/>

¹¹³ Launched in 1999, the Dow Jones Sustainability Indexes are the first global indexes tracking the financial performance of the leading sustainability-driven companies worldwide.

2008 a conference is held on the theme of ‘Europe 2050: Business for Sustainable Development - a new way forward’. The conference should bring together Business leaders from all sectors to discuss new strategies and best practice across the 7 challenges. One of the results should be a new business strategy designed by business for business to make a real contribution to the EU SDS objectives.

Another general initiative in this area was the March 2006 Communication on CSR¹¹⁴ which set out several policy objectives and 8 priority areas for action in this area. These include: awareness-raising and best practice exchange; support for multi-stakeholder initiatives; cooperation with Member States; consumer information and transparency; research; education; SMEs; and the international dimension of CSR. Through CSR, enterprises (in cooperation with their stakeholders), contribute solutions in all the key areas of the EU SDS. This can sometimes take the form of actions and policies to avoid negative impacts. It also and increasingly takes the form of innovation and value creation, as new products, services and business models are developed that have both a strong societal benefit and strong commercial logic.

Citizen input (including NGOs) is critical for improving governance by providing valuable input and maintaining a constructive and critical voice on delivery and implementation. For instance, the EESC stakeholder forum¹¹⁵ in May 2007 brought together groups from many different parts of civil society, to discuss how civil society itself can continue to develop constructive solutions to climate change. The EU has promoted the full implementation of civil society initiatives such as the Aarhus Convention Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters in a number of ways, including adopting regulations¹¹⁶ taking part in activities, task forces and events at international level.

12. IMPLEMENTATION, MONITORING AND FOLLOW UP

12.1. Objectives

- Every two years, the Commission should submit a progress report on implementation of the EU SDS in the EU and Member States also including future priorities, orientations and actions.
- The Commission, in cooperation with Member States through the working group on SDIs, will further develop and review indicators.
- On the basis of the Commission progress report and the contributions of the Council, the December European Council should review progress and priorities every two years (starting in 2007).

¹¹⁴ COM(2006)136 Final.

¹¹⁵ http://www.eesc.europa.eu/stakeholders_forum/index_en.asp

¹¹⁶ Regulation No 1367/2006 on 6 September 2006, (Directive 2003/4 on public access to environmental information [OJ L 41, 14.2.2003, p. 26] and Directive 2003/35 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC [OJ L 156, 25.6.2003, p. 17]).

- Each Member State should appoint a representative acting as an EU SDS focal point enabled to provide, at the latest by June 2007 (and then at two-year intervals), the necessary input on progress at national level.
- Future reviews of National Sustainable Development Councils (NSDSs) should be undertaken in the light of the revised EU SDS.
- Member States could make use of the existing European Sustainable Development Networks.

12.2. Key Policies and Actions

In 2006, the Council proposed a new governance structure for the EU SDS and in less than a year significant progress has been made. This present progress report on the EU SDS is written on the basis of the 2007 Eurostat Sustainable Development Monitoring Report, reports by the 27 Member States on their implementation of the EU SDS, input from internal Commission sources and an independent consultancy study.

The development and review of the SDIs has been conducted to closely match the challenges and objectives set out in the renewed EU SDS of 2006. The review has focused on giving the best possible picture of the available indicators and statistical information to monitor the objectives. In reviewing the SDIs, policy relevance, the overall communication value of the set and statistical quality were key criteria. 11 headline indicators aim to monitor the overall objectives of the strategy and have a high communication value. The SDIs are now better aligned with the priorities and objectives of the renewed EU SDS. They also take account of the most recent statistical developments. With the active assistance of the working group on SDIs, the Commission will regularly assess the progress made in developing new and better indicators.

Other institutions have been active in contributing to the implementation of the EU SDS. The EESC's Bureau set up a Sustainable Development Observatory (SDO) in September 2006 with a mandate to stimulate debate on sustainable development issues, share best practice and analyse SD issues from the point of view of organised civil society. The SDO prepared the EESC's opinion on the Biennial Progress Report of the EU SDS, adopted 11 July 2007. In this opinion, the Committee welcomes the key objectives and policy guiding principles however, stressing that the objectives are too vague and need to be clearer. The Committee feels that, while, quite rightly, strong focus is given to fighting climate change, this must not lead to other key elements of the EU SDS being neglected. It strongly recommends the development of an alternative indicator for growth based on sustainability criteria. It further recommends that the Council and the Commission in this report examines whether there is a possible inherent contradiction between the sustainable development strategy on the one hand, and the Lisbon Strategy on the other, particularly as regards the use of GDP as an indicator of social welfare and economic prosperity; and to further indicate the requisite features of any new "prosperity indicator" more in line with sustainability principles. The EESC is preparing further opinions on the Lisbon Strategy and Climate Change and on the role of the NSDSs for early 2008.

The Committee of the Regions is preparing an Opinion on Education Promoting Sustainable Development for adoption September 2007.

Each Member State has appointed a EU SDS coordinator. The Commission has set up an EU SDS Coordinators group that meets to discuss progress on the EU SDS and review key political issues related to the strategy. All Member States have submitted a progress report on progress made on the EU SDS as reflected in this report and many are currently updating their NSDS in line with the EU SDS.

The EU SDS proposed to institutionalise peer reviews of national strategies in order to better identify and share good practices in a process of mutual learning. The Commission has developed a handbook and has in 2007 co-financed the peer review of the Dutch NSDS. This review constituted a substantial input to the ongoing redesign of the Dutch SDS and had visible political impact. Further reviews are planned for 2008.

Thirteen Member States have advisory councils that are explicitly engaged in the Sustainable Development agenda and can have an important role in policy formulation and/or implementation. In addition there are some councils formed at regional level. Most councils are independent multi stakeholder organisations which also include scientific entities. They have regular contacts to all levels in government and some councils have government representatives as observers.

ANNEX 1:
Eurostat contribution to 2007 Commission report on the Sustainable Development Strategy

Sustainable Development Indicators

Defining the challenge, objectives and actions agreed in the SDS

The SDS (para. 33 to 36) describes the need for and use of indicators of sustainable development (SDIs). The Strategy states that the Commission should further develop and review them with the assistance of the working group on SDIs, with a view to the possible adoption of a limited set of indicators by the Council in 2007.

The objectives pursued by the Commission with this review of the set were threefold:

Policy relevance: to adjust as much as possible the SDI set adopted in 2005 to the renewed Strategy;

Efficient communication: to streamline the set of indicators in order to improve communication whilst maintaining the maximum stability of the set over time;

Statistical quality: to improve the overall quality of the set, taking into account recent statistical developments.

The Strategy also requires Eurostat to deliver a monitoring report every two years, based on the SDI list

Assessment of progress made

The Commission endorsed a first set of SDIs in 2005¹¹⁷, ie before the adoption of the renewed Sustainable Development Strategy by the Council. The review of this first set was carried out by the Commission in close cooperation with the Working Group on SDIs, composed of both statistical and political representatives at national and EU level.

A framework to organise the set of indicators

Because the 2005 framework anticipated the possible evolution of the Strategy, the need for adaptation in 2007 was minimal. In particular each of the seven key challenges were already represented by a theme in the framework, with the 'Social inclusion, demography and migrations' challenge split into two themes (Social inclusion on the one hand, Demographic changes on the other) to reflect the different nature of these two issues. Two other themes were kept to reflect key objectives of the SDS, ie Socio-economic development and Good governance.

¹¹⁷ Commission Communication SEC(2005) 61: "Sustainable Development Indicators to monitor the implementation of the EU Sustainable Development Strategy".

The themes are further divided into sub-themes to organise the set in a way that reflects the main priorities of the Sustainable Development Strategy. The framework is therefore well adapted to monitor progress towards the EU objectives for SD. The themes and their sub-themes are the following:

Table 1: List of themes, sub-themes and headline indicators

THEMES	SUB-THEMES				HEADLINE INDICATORS
Socio-economic development	Economic development	Innovation, competitiveness, and eco-efficiency	Employment		Growth rate of GDP per inhabitant
Sustainable consumption and production	Resource use and waste	Consumption patterns	Production patterns		Resource productivity
Social inclusion	Monetary poverty and living conditions	Access to labour market	Education		At-risk-of-poverty rate after social transfers
Demographic changes	Demography	Old-age income adequacy	Public Finance sustainability		Employment rate of older workers
Public health	Health and health inequalities	Determinants of health			Healthy life years and life expectancy at birth, by gender
Climate change and energy	Climate change	Energy			Greenhouse gas emissions Consumption of renewables
Sustainable transport	Transport growth	Transport prices	Social and environmental impacts of transport		Energy consumption by transport
Natural resources	Biodiversity	Freshwater resources	Marine ecosystems	Land use	Common Bird Index Fish catches outside safe biological limits
Global partnership	Globalisation of trade	Financing for sustainable development	Global resource management		Official Development Assistance
Good governance	Policy coherence and effectiveness	Openness and participation	Economic instruments	

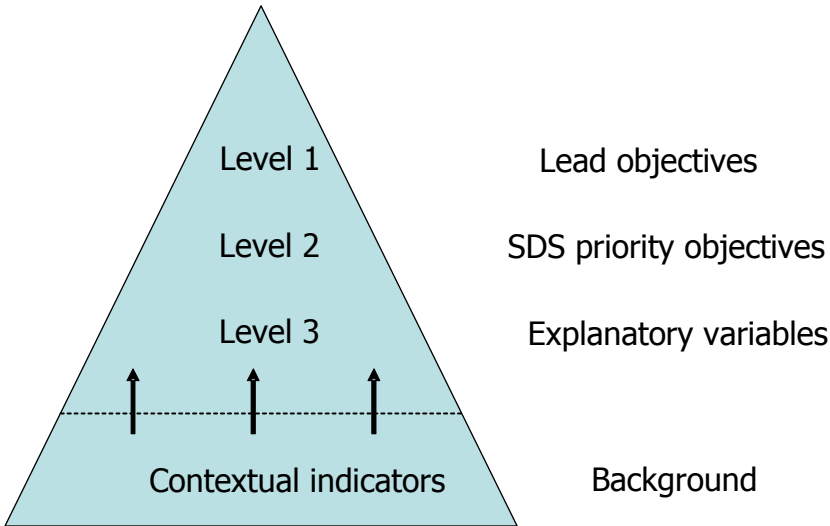
Different kinds of indicators

Compiling indicators and communicating efficiently about an issue as complex as sustainable development remains a challenge at all levels (EU, national, local). This is mainly due to the wide range of issues to be addressed, but also to the requirement for new data, or a new approach to existing data, stemming from a large number of sources.

The structure of the set of SD indicators remains as presented in the 2005 set of indicators, as a three-storey pyramid. This distinction between the three levels of indicators is symmetric to the structure of the renewed SD Strategy (overall objectives, operational objectives, actions) and also responds to different kinds of user needs. The three-level pyramid is complemented with contextual indicators, as illustrated in Figure 1 below:

- **Headline (or level-1) indicators** are at the top of the pyramid. The objective is to monitor the ‘overall objectives’ of the SDS. They are well-known indicators with a high communicative and educative value. They are robust and available for most EU Member States for a period of at least five years.
- The **second level** of the pyramid consists of indicators related to the operational objectives of the SDS. They are the lead indicators in their respective sub-themes. They are robust and available for most EU Member States for a period of at least three years.
- The **third level** consists of indicators related to actions mentioned in the SDS or to other issues which are useful to analyse progress towards the SDS objectives. Breakdowns of level-1 or -2 indicators are usually also found at level-3.
- **Contextual indicators** are part of the SDI set, but either they do not monitor directly any of the SDS objectives or they are not policy responsive. Generally they are difficult to interpret in a normative way. However, they provide valuable background information on issues having direct relevance for SD policies and are useful for the analysis.

12.3. **Figure 1: The SDI pyramid**



The SDI set also describes indicators which are not yet fully developed but which would be necessary to get a more complete picture of progress. In order to avoid cluttering the list with indicators that remain without any data, a distinction is made between indicators under development and indicators to be developed.

- The **indicators under development** are either existing, but of insufficient quality or coverage (e.g. not yet available for three years or for a majority of Member States), or known to be currently under development by a group of experts in Europe. The indicators are expected to become available within two years and of sufficient quality, respecting standards set by the European Statistical System. They appear in italics in the SDI list. Where possible, a proxy is proposed for use until the indicator is fully available. These indicators will be used as soon as data are available and of sufficient quality.
- The **indicators to be developed** are either: (i) known to be under development currently by a group of experts in Europe, but no final satisfactory result is expected within two years; or (ii) not being developed currently as far as is known. They do not yet belong to the SDI set and are quoted in annex as topics for further development. Developments will be regularly reviewed and evaluated with the assistance of the SDI Working Group, so that indicators that are sufficiently developed are integrated in the set.

Streamlining the set

Most countries or organisations have chosen to adopt a limited set of key indicators to communicate the main messages related to sustainable development. This limited set is often complemented by more detailed indicators which are used for reporting. The main reason for limiting the size of the set is that it is easier to communicate on the basis of a restricted set of indicators.

The Commission has partially succeeded in adopting a similar approach, reducing the total number of indicators from 155 in 2005 to 122, plus 11 contextual indicators. The total of 122 comprises 11 headline, 33 level-2 and 78 level-3 indicators (see detailed number of indicators in annex 1). The number of headline and level-2 indicators is comparable to the situation in most EU countries. One or two level-1 indicators were chosen for every theme except 'Good governance' where the SDI Working Group could not find any appropriate candidate with information currently available.

Given the cross-cutting nature of SD, the framework for indicators is determined by policy themes that unavoidably overlap to some extent. Some driving forces, such as energy consumption, influence developments covered by several themes, but cannot appear several times in the indicator set. To avoid duplication, a specific indicator is allocated to only one theme. This allocation is based on pragmatism and reflects in general the way the SDS treats these boundary issues.

The lively discussions held in this group of experts converged to a large extent, and led in particular to agreement on the list of headline (level 1) indicators which is shown in Table 1 above. The full list presented in annex 1 reflects to a large extent the output of the discussions in the SDI Working Group.

Consequences for the 2007 monitoring report

Since the drafting of the 2007 Eurostat monitoring report began before the SDI review was completed, it was not possible for the revised SDI set to be fully incorporated. Therefore the list of indicators used in the report is hybrid, falling somewhere between the 2005 list and the reviewed list, with new indicators from the reviewed list included to the maximum extent possible. Eurostat is committed to putting the indicators from the new list online by the end of 2007¹¹⁸.

Conclusion

The 2006-2007 SDI review has resulted in a revised indicator set, better aligned with the priorities and objectives of the renewed SDS and benefiting from recent statistical developments. The lively and varied participation of experts from many different backgrounds demonstrated the growing interest from the various stakeholders on issues related to the measurement of sustainable development.

It is a common understanding that refining the SDI set is an on-going process. With the assistance of the working group on SDIs, the Commission will regularly assess the progress made in developing new and better indicators. The optimal trade-off between communicating efficiently on the basis of a large set of indicators and monitoring the SDS with an appropriate level of detail will be reviewed at these occasions.

Summary

The review of the SDI set has been guided by the expectation that it will serve as a monitoring tool for the renewed SDS. Therefore the set follows closely the boundaries of the challenges and key objectives of the SDS. It aims to give the best possible picture at a moment in time of indicators and statistical information available to monitor the objectives. This is a challenging objective, particularly in the field of good governance which is a new topic for official statistics and where administrative data are not always available to assess the way our policies are defined and implemented.

¹¹⁸ www.europa.eu/comm/eurostat/sustainabledevelopment

List of Sustainable Development Indicators

The breakdown of indicators by theme is as follows:

	L1	L2		L3		TOTAL		Contextual	TBD
	Total	Total	UD	Total	UD	Total	UD		
Socio-economic development	1	3	-	11	2	15	2	-	2
Sustainable Consumption and Production	1	3	1	12	2	16	3	2	8
Social inclusion	1	3	-	11	2	15	2	1	3
Demographic changes	1	3	-	4	-	8	-	4	1
Public health	1	3	-	8	3	12	3	-	10
Climate change and energy	2	2	-	8	-	12	-	-	2
Sustainable transport	1	5	-	6	-	12	-	-	6
Natural resources	2	5	2	6	2	13	4	-	9
Global partnership	1	3	-	9	-	13	-	3	4
Good governance	0	3	-	3	-	6	-	1	5
TOTAL	11	33	3	78	11	122	14	11	50

UD: Indicators under development

TBD: Indicators to be developed

THEME 1: SOCIO-ECONOMIC DEVELOPMENT

Key SDS objective: Economic prosperity

Level 1	Level 2	Level 3
1. Growth rate of GDP per inhabitant	Sub-theme: ECONOMIC DEVELOPMENT	
	2. Gross investment, by institutional sector	3. Dispersion of regional GDP per inhabitant 4. Net national income 5. Gross household saving
	Sub-theme: INNOVATION, COMPETITIVENESS AND ECO-EFFICIENCY	
	6. Labour productivity per hour worked	7. Total R&D expenditure 8. Real effective exchange rate 9. <i>Turnover from innovation, by economic sector *</i> 10. <i>Effects of innovation on material and energy efficiency *</i> 11. Energy intensity
	Sub-theme: EMPLOYMENT	
	12. Total employment rate	13. Employment rate, by gender and by highest level of education attained 14. Dispersion of regional employment rates 15. Unemployment rate, by gender and age group

THEME 2: SUSTAINABLE CONSUMPTION

Key SDS challenge: Sustainable and PRODUCTION

Key SDS challenge: Conservation and management of natural resources

Level 1	Level 2	Level 3
1. Resource productivity	Sub-theme: RESOURCE USE AND WASTE	
	2. <i>Generation of total waste*</i> , by economic activity and GDP (proxy: Municipal waste generated per inhabitant)	3. Components of Domestic Material Consumption 4. <i>Environmental impact of material consumption</i> * (proxy: Domestic Material Consumption, by material) 5. Municipal waste treatment, by type of treatment method 6. <i>Generation of hazardous waste, by economic activity*</i> 7. Emissions of acidifying substances, ozone precursors, and particulate matter by source sector, and GDP
	Sub-theme: CONSUMPTION PATTERNS	
	8. Electricity consumption by households	9. Final energy consumption, by sector 10. Consumption of certain foodstuffs per inhabitant 11. Motorisation rate
	Sub-theme: PRODUCTION PATTERNS	
12. Enterprises with a registered environmental management system	13. Eco-label awards 14. Area under agri-environmental commitment 15. Area under organic farming 16. Livestock density index	
Contextual indicators	<ul style="list-style-type: none"> - Number of households (for sub-theme Consumption patterns) - Household expenditure per inhabitant, by category (for sub-theme Consumption patterns) 	

* Indicator under development

THEME 3: SOCIAL INCLUSION

Key SDS challenge: Social inclusion, demography and migration

Level 1	Level 2	Level 3
1. At-risk-of-poverty rate after social transfers	Sub-theme: MONETARY POVERTY AND LIVING CONDITIONS	
	2. At-persistent-risk-of-poverty rate	3. At-risk-of-poverty rate, by gender, by age group, and by household type 4. Relative at risk of poverty gap 5. Inequality of income distribution
	Sub-theme: ACCESS TO LABOUR MARKET	
	6. People living in jobless households, by age group	7. In-work poverty 8. Total long-term unemployment rate 9. Gender pay gap in unadjusted form
	Sub-theme: EDUCATION	
	10. Early school leavers	11. At-risk-of-poverty rate, by highest level of education attained 12. Persons with low educational attainment, by age group 13. Life-long learning 14. <i>Low reading literacy performance of pupils*</i> 15. <i>ICT skills*</i>
Contextual indicator	- Public expenditure on education (for sub-theme Education)	

* Indicator under development

Level 1	Level 2	Level 3
1. Employment rate of older workers	Sub-theme: DEMOGRAPHY	
	2. Life expectancy at age 65, by gender	3. Total fertility rate 4. Net migration, by age group
	Sub-theme: OLD-AGE INCOME ADEQUACY	
	5. Aggregated income replacement ratio	6. At-risk-of-poverty rate for persons aged 65 years and over
	Sub-theme: PUBLIC FINANCE SUSTAINABILITY	
	7. General government consolidated gross debt	8. Average exit age from the labour market
Contextual indicators	- Old age dependency ratio (for sub-theme Demographic changes) - Changes in Public pensions expenditure (for sub-theme Public finance sustainability) and Changes in Projected theoretical income replacement ratio (for sub-theme Public	

	finance sustainability) - Public expenditure on care for the elderly (for sub-theme Public finance sustainability)
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THEME 4: DEMOGRAPHIC CHANGES

Key SDS challenge: Social inclusion, demography and migration

THEME 5: PUBLIC HEALTH

Key SDS challenge: Public health

Level 1	Level 2	Level 3
1. Healthy life years and life expectancy at birth, by gender	Sub-theme: HEALTH AND HEALTH INEQUALITIES	
	2. Death rate due to chronic diseases, by age group	3. Healthy life years and life expectancy at age 65, by gender 4. Suicide death rate, by gender and by age group
	Sub-theme: DETERMINANTS OF HEALTH	
	5. Salmonellosis incidence rate in human beings 6. Index of production of chemicals, by toxicity class	7. <i>Overweight people, by age group*</i> 8. <i>Present smokers, by gender and by age group*</i> 9. Population exposure to air pollution by particulate matter 10. Population exposure to air pollution by ozone 11. <i>Population living in households considering that they suffer from noise*</i> 12. Serious accidents at work

* Indicator under development

THEME 6: CLIMATE CHANGE AND ENERGY

Key SDS challenge: Climate change and clean energy

Level 1	Level 2	Level 3
1. Total greenhouse gas emissions 2. Consumption of renewables	Sub-theme: CLIMATE CHANGE	
	3. Greenhouse gas emissions by sector	4. Greenhouse gas intensity of energy consumption 5. Projections of greenhouse gas emissions 6. Global surface average temperature
	Sub-theme: ENERGY	
	7. Energy dependency	8. Gross inland energy consumption, by fuel 9. Electricity generation from renewables 10. Consumption of biofuels by transport 11. Combined heat and power generation 12. Implicit tax rate on energy

Level 1	Level 2	Level 3
1. Energy consumption of transport	Sub-theme: TRANSPORT GROWTH	
	2. Modal split of freight transport	4. Volume of freight transport and GDP
	3. Modal split of passenger transport	5. Volume of passenger transport and GDP
	Sub-theme: TRANSPORT PRICES	
	7. Road fuel prices	...
	Sub-theme: SOCIAL AND ENVIRONMENTAL IMPACT OF TRANSPORT	
8. Greenhouse gas emissions by transport, by mode	10. Average CO ₂ emissions per km from new passenger cars	
9. People killed in road accidents, by age group	11. Emissions of ozone precursors from transport	
		12. Emissions of particulate matter from transport

THEME 7: SUSTAINABLE TRANSPORT

Key SDS challenge: Sustainable transport

THEME 8: NATURAL RESOURCES

Key SDS challenge: Conservation and management of natural resources

Level 1	Level 2	Level 3
1. Common Bird Index 2. Fish catches outside safe biological limits	Sub-theme: BIODIVERSITY	
	3. Sufficiency of sites designated under the EU Habitats <i>and Birds</i> directives	4. <i>Red List Index for European species</i> *
	Sub-theme: FRESH WATER RESOURCES	
	5. Surface and groundwater abstraction	6. Population connected to wastewater secondary treatment systems 7. Biochemical oxygen demand in rivers
	Sub-theme: MARINE ECOSYSTEMS	
	8. <i>Concentration of mercury in fish and shellfish</i> *	9. Size of fishing fleet
	Sub-theme: LAND USE	
	10. <i>Land use change</i> *, <i>by category</i> (proxy: Built-up areas) 11. Forest increment and fellings	12. Forest trees damaged by defoliation 13. <i>Critical load exceedance for nitrogen</i> *

* Indicator under development

THEME 9: GLOBAL PARTNERSHIP

Key SDS challenge: Global poverty and sustainable development

Level 1	Level 2	Level 3
1. Official Development Assistance (ODA)	Sub-theme: GLOBALISATION OF TRADE	
	2. EU imports from developing countries, by income group	3. EU imports from developing countries, by group of products 4. EU imports from least developed-countries, by group of products 5. Aggregated measurement of support
	Sub-theme: FINANCING FOR SUSTAINABLE DEVELOPMENT	
	6. Total EU financing for development, by type	7. Foreign direct investment in developing countries, by income group 8. ODA, by income group 9. Untied ODA 10. Bilateral ODA dedicated to social infrastructure and services 11. Bilateral ODA dedicated to debt
	Sub-theme: GLOBAL RESOURCE MANAGEMENT	
	12. CO ₂ emissions per inhabitant in the EU and in developing countries	13. Bilateral ODA dedicated to water supply and sanitation
Contextual indicators	<ul style="list-style-type: none"> - Population living on less than 1USD a day (for sub-theme Financing for SD) - ODA per inhabitant in recipient countries (for sub-theme Financing for SD) - Population with sustainable access to an improved water source (for sub-theme Global Resource Management) 	

THEME 10: GOOD GOVERNANCE

SDS guiding principle: Policy coherence and governance

Level 1	Level 2	Level 3
...	Sub-theme: POLICY COHERENCE AND EFFECTIVENESS	
	1. New infringement cases, by policy area	2. Transposition of Community law, by policy area
	Sub-theme: OPENNESS AND PARTICIPATION	
	3. Voter turnout in national and EU parliamentary elections	4. E-government on-line availability 5. E-government usage by individuals
	Sub-theme: ECONOMIC INSTRUMENTS	
	6. Shares of environmental and labour taxes in total tax revenues	...
Contextual indicator	- Citizens' confidence in EU institutions (for sub-theme Policy coherence and effectiveness)	

ANNEX 2:
List of indicators to be developed

Theme 1: Socio-economic development

- The feasibility of the 'Genuine savings' indicator (as developed by the World Bank) for EU countries should be studied and could replace the 'Net national income' indicator.
- An indicator on 'Eco-innovations' should be investigated and could replace the proxy indicator 'Effects of innovation on material and energy efficiency'. 'Eco-innovations' are focused on an equation between environmental quality and economic growth.

Theme 2: Sustainable consumption and production

Sub-theme 'Resource use and waste':

- The headline indicator Resource productivity (currently defined as GDP divided by 'Domestic material consumption') should be redefined as GDP divided by 'Total material consumption'. The indicator 'Total material consumption' is currently being developed within the European Statistical System, although it is unlikely to be available for a large number of countries within two years.

Sub-theme 'Consumption patterns':

- Commission services have commissioned a study to produce an indicator for the measurement of 'Green public procurement' by 2008.
- An indicator on 'Share of consumption of products with an ecolabel' is needed. In the meantime, an indicator on 'Awareness of ecolabels' could be considered as a proxy.

Sub-theme 'Production patterns':

- An indicator on 'Nitrogen balance' would be more comprehensive than 'Livestock density index' because it would include all sources of nitrogen and measure pressure more directly, but it would need to be developed at a regional level.
- An indicator on 'Ethical financing' should be developed.
- An indicator on 'Share of industrial production from enterprises with a formal environmental management system' is under investigation. When and if it became available, it should replace 'Enterprises with an EMS'.
- An indicator on 'Share of production of products with an EU eco label' is under investigation. When and if it became available, it should replace 'Eco-label awards'.
- Indicators on energy and material use per unit of output need to be developed per industrial sector, with NAMEA as a potential source.

Theme 3: Social inclusion

Sub-theme 'Monetary poverty and living conditions':

- The Social Protection Committee is developing a set of indicators on 'Child wellbeing'. The child poverty indicator is already in the SDI list as a breakdown of the at-risk-of poverty rate by age (for children aged 0-17). 'Child well-being' should be used to give room to other dimensions that income poverty: e.g. health, joblessness, poor education level, material deprivation, etc.
- A composite indicator on 'Material deprivation' is being developed by the Social Protection Committee and measures a lack of specific material resources. It should identify the most essential items that need to be available to households to avoid material deprivation.
- A composite indicator on 'Adequacy of housing conditions' is being developed by the Social Protection Committee.

Theme 4: Demographic changes

- An indicator on 'Health expenditure on old age' is not feasible in the medium-term. Commission services are looking at possible ways to overcome this problem.

Theme 5: Public health

Sub-theme 'Health and health inequalities'

- An indicator on 'Incidence of chronic diseases' is considered to be more useful than the death rate. However, the indicator is not expected in the medium-term.
- The Social Protection Committee should soon take a formal position on the indicator 'Unmet needs for healthcare, by income quintile', on the basis of the conclusions of its indicators sub-group, and this decision will be followed in the SDIs work.
- An indicator on 'Childhood health/diseases' has been proposed, but Eurostat is not aware of any work currently underway.
- An indicator on 'Dispersion of regional death rates' could be developed. It should exclude deaths of older persons.

Sub-theme 'Determinants of health'

- An indicator on 'Deaths due to infectious food-borne diseases' should replace the 'Salmonellosis incidence rate' when available. Data collection on infectious food-borne diseases has been taken over by the European Centre for Disease Prevention and Control. A Eurostat Task Force has been set up to define diseases related to food safety (ie caused by infection, toxins, etc.), to identify the most important ones, to propose indicators, and to report on sources and data quality. Conclusions from this Task Force are expected later in 2007. Depending on the results of this work, some indicators might become available by the end of 2008.
- It is expected that an 'Index of apparent consumption of chemicals by toxicity class' will be developed in the context of the REACH (registration, evaluation, authorisation and restriction of chemicals) Regulation, and will then replace the indicator on 'Index of production of chemicals by toxicity class'.

- Currently available data on contaminants and residues in food and feed are insufficient to compile the following indicators:

- 'Dioxins and PCBs in food and feed'
- 'Pesticides residues in food'

The Directorate-General for Health and Consumer Protection, the European Food Safety Agency, and the European Environment Agency, are the principal competent bodies.

- The European Foundation for Living and Working Conditions has published several reports on 'Work-related stress'. It has to be investigated whether these results could be used for developing an appropriate indicator on Work with a high level of job strain/stress.
- A proposed indicator on 'Monetary damage of air pollution as % of GDP' oriented towards specific health aspects would require consensus on the appropriate methodology and a commitment to regular production. The appropriate producer for this indicator has not been identified at this stage

Theme 6: Climate change and Energy

Sub-theme 'Energy':

- A number of difficulties have been encountered with an indicator on 'Radioactive waste' and the quality of the existing information needs to be assessed. Radioactive quantities have a wide range of risk and of processing complexity. The definition of high level radioactive waste is ambiguous. The much larger quantities of low-level radioactive waste and different levels of risk from different physical forms would not be regarded. In some countries with a military fuel cycle quite considerable quantities will not be included in this aggregate for reasons of security and this would compromise the indicator in Member States which also make extensive use of nuclear energy. Permanent disposal is a term which is sensitive to political interpretation and which could lead to further differences in application between Member States.
- The 'External costs of energy use' is prone to frequent methodological adaptations. The uncertainty in the health impacts of particulates is of particular concern. The regular production of this indicator according to an agreed methodology needs to be assured.

Theme 7: Sustainable transport

Sub-theme 'Transport growth':

- A study on best practice regarding 'Vehicle-km by road' has been carried out within a UNECE Task Force. This work will be taken over by a Eurostat Task Force. However, useable data are not expected in the near future. When available, this indicator should be added at level 3.
- Although there is no work currently being undertaken to develop an indicator on 'Use of public transport', this topic should be addressed.

Sub-theme 'Transport prices':

- Directive 2006/38/EC amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures should make an indicator on 'External costs

of transport activities' possible. Pursuant to this Directive, the Commission shall present a model for the assessment of all external costs for all modes of transport by mid-2008.

- An indicator on 'Investment in transport infrastructure by mode' could be possible if it were decided to revise Regulation (EEC) No 1108/70 introducing an accounting system for expenditure on infrastructure in respect of transport by rail, road and inland waterway.

Sub-theme 'Social and environmental impacts of transport':

- It is hoped that an indicator on 'Exposure to noise from transport' will be possible with the implementation of Directive 2002/49/EC relating to the assessment and management of environmental noise
- An indicator on 'Fragmentation of natural and semi-natural areas' is considered essential either in this theme, emphasising transport, or in that on Natural resources, considering all causes. The final decision of placement depends largely on which indicator is produced and kept up to date by the European Environment Agency.

Theme 8: Natural resources

Sub-theme 'Biodiversity':

- A headline indicator provisionally labelled as 'Biodiversity Index' is being considered. An indicator on 'Abundance and distribution of selected species' is among the considered options, of which the Common bird index could be one of the components.
- An indicator on 'Change in status of species of European interest' should stem from reporting under the Habitats Directive.

Sub-theme 'Freshwater resources':

- 'Index of toxic chemical risk to aquatic environment' or 'Percentage of water bodies with high or good ecological status', stemming from reporting under the Water Framework Directive.
- 'Concentration of organic matter as chemical oxygen demand of rivers'. When more data on COD become available, this would complement the indicator on BOD.

Sub-theme 'Marine ecosystems':

- 'Effective fishing capacity and quotas', by specific fisheries. This would be a better pressure indicator on fish stocks than the existing 'size of fishing fleet'.
- Although there is no development foreseen for the indicator 'Structural support to fisheries and % allocated to promote environmentally friendly fishing practices' until at least 2010, the topic is kept in the list because of its policy relevance.
- 'Seagrasses' would also be a useful indicator for completing the sub-theme on marine ecosystems.

Sub-theme 'Land use':

- An indicator on 'Percentage of total land area at risk of soil erosion' should be developed.

- An indicator on 'Deadwood' would be a useful indicator on forest management and could replace in the longer term the indicator on defoliation.

Theme 9: Global partnership

Contextual indicators:

- An indicator on the 'Share of global greenhouse gas emissions from countries having agreed limits on their emissions' could be developed as a contextual indicator.

Sub-theme: 'Globalisation of trade'

- An indicator on the 'Sales of selected Fair Trade labelled products' needs to be developed, based on reliable data, and representative of the whole Fair Trade movement.

Sub-theme 'Global resource management':

- An indicator on the 'Contribution of the Clean Development Mechanism to GHG emission reductions in developing countries' should be developed.
- An indicator on 'Global footprint' measuring the EU use of global resources based on the ecological footprint methodology could be considered under this sub-theme, but is not currently considered for inclusion because of methodological shortcomings.

Theme 10: Good governance

Sub-theme 'Policy coherence and effectiveness':

- Following the Action Programme on administrative burden adopted in Jan 2007, the topic of 'Administrative cost imposed by legislation' could be considered in the set although there is as yet no commonly agreed definition for an indicator.
- The topic of 'Impact assessment' should be kept for future development, as there is currently no satisfactory concrete proposal for an indicator.

Sub-theme 'Openness and participation':

- The topic of 'Level of involvement of consumer groups and companies', or the degree to which Member States run 'Awareness campaigns' could be considered for inclusion in the set if comparable data and indicators could be defined.
- The topic of 'Public consultations' should be kept for future development, as there is currently no satisfactory concrete proposal for an indicator.

Sub-theme 'Financing and economic instruments':

- An indicator on 'Proportion of environmentally-harmful subsidies' should be considered for inclusion in the set. Commission services are working on a definition sector by sector of 'environmentally-harmful subsidies' to be available by 2008.