

UK POSITION PAPER ON THE THEMATIC STRATEGY ON THE SUSTAINABLE USE OF NATURAL RESOURCES

The UK welcomes the Commission Communication *Towards a Thematic Strategy on the Sustainable Use of Natural Resources*. The UK is committed to breaking the link between economic growth and environmental degradation, and to improving resource efficiency. We published *Changing Patterns: UK Government Framework for Sustainable Consumption and Production* to move towards delivery of the World Summit on Sustainable Development (WSSD) commitment on sustainable consumption and production. We have also proposed a set of 12 “decoupling” indicators.

This paper sets out our initial views, building on the Commission Communication, discussions at the Strategy’s Working and Advisory Groups meetings and the production of subsequent group reports. It outlines measures for the Strategy on sustainable production, commodities, products and procurement. It then explores and proposes a way of taking the Strategy forward after its publication, including working with sectors, measuring progress and identifying future research needs. It does not attempt to propose a structure for the Strategy as a whole.

SETTING OUT A VISION

The Thematic Strategy should seek to deliver continuous economic and social progress that respects the limits of the Earth's ecosystems, and meets the needs and aspirations of everyone for a better quality of life now and for future generations to come. In doing so, it should be a central component of the EU’s efforts to deliver the WSSD commitment on sustainable consumption and production.

The Strategy should seek to accomplish this vision by setting out clear policy objectives and guiding principles. These will help focus the debate and provide direction for future action. These should include:

1. ‘Decoupling’ economic growth and environmental degradation.

This should be at the heart of the Strategy. The overall direction of the Strategy should be to decouple at a sector and a household level, contributing to economic growth whilst improving our environmental performance.

2. Focusing on the most important environmental impacts associated with the use of particular resources (rather than on the total level of all resource use) and by respecting environmental limits.

The Strategy’s first priorities should be areas where the impact of resource use is pressing up against environmental limits, and where there are particularly large environmental impacts.

3. Increasing the productivity of resource use, as part of a broader commitment to increase productivity within the EU.

The Strategy should support ways of meeting people’s needs that are economically efficient. By encouraging patterns of supply and demand which are more efficient in the use of resources, the Strategy should aim to promote innovation and competitiveness.

4. Taking a holistic approach that considers whole life-cycles of products and services, intervening to tackle problems as early as practicable in the resource/waste flow.

Environmental degradation can be caused by the manufacture, distribution, use and disposal of a product or service. The Strategy’s policy approach should be to look across the whole chain of consumption and production before deciding the points on which to focus. It will generally make sense to favour prevention rather than cure.

5. Encouraging and enabling sustainable consumption by individuals, companies and the public sector.

The Strategy should help us in understanding and exploiting the potential market leverage which public bodies and large businesses can deploy. It should consider how to move sustainable consumption choices from the niche to the mainstream.

6. Addressing the international environmental impacts of EU consumption patterns

As we reduce pressure on our own domestic environment by extracting fewer resources, there is evidence that the EU's environmental impact on other countries, especially developing countries, is increasing. The Strategy should tackle this complex and difficult issue, taking into account economic, social and environmental factors.

7. Pursuing timely, evidence-based policy making which looks ahead, identifies risks, countermeasures and contingencies

Policymaking should operate on a robust scientific or economic basis, to identify priorities and timely actions based on a balance of risks and projected outcomes. For example, the robust evidence on climate change gives considerable scope for governments and industry to mitigate the effects and adopt medium and long-term targets.

7. Pursuing evidence-based policy making

Policymaking should operate on a robust scientific or economic basis. For example, the robust evidence on climate change will enable adoption of medium and long-term targets.

8. Ensuring coherence between EU policies

The Strategy is very wide-ranging, linking to diverse issues that are themselves the subject of extensive action at national, EU and international levels. The Strategy should be coherent with other EU policies, especially in the consumption and production area, e.g. Integrated Product Policy, Environmental Technologies Action Plan, EU Sustainable Development Strategy, Energy-Using Products Directive, and the other Thematic Strategies.

9. Putting 'better regulation' into practice

The Strategy should comply with the principles of better regulation. For example, working with the grain of markets, and other alternatives to traditional regulation should be considered first in order to achieve the Strategy's overall objectives.

10. Ensuring full and fair competition

There is no perfect competition in markets to help improve productivity. In attempting to correct market failures affecting some players, we should not create new barriers for others that are incompatible with the aims of the Strategy.

11. Taking action at the appropriate level

Decoupling economic growth and environmental degradation will require action at national, EU and international levels. It will be important that these actions are taken at the appropriate level with respect to the subsidiarity principle e.g. economic instruments will be for Member States, but trade issues or product standards are a clear Community competence.

SUSTAINABLE PRODUCTION

The environmental technologies agenda

Innovation in all its facets, including environmental technologies, will be essential for meeting the environmental challenges posed by this Strategy. Innovation - "the successful exploitation of new ideas" - matters because it can deliver better products and services, new, cleaner and more efficient production processes and improved business models. Often innovation involves new technologies or technological applications. Together, these can help break the link between economic growth, and the environmental impacts of resource use. At the same time, they can help us find new, cleaner and more socially inclusive ways of meeting the needs and aspirations of our citizens and stimulating the development of new businesses, job creation and sustainable growth.

The EU Environmental Technologies Action Plan (ETAP) is a crucial delivery mechanism to increase innovation and market penetration for environmental technologies, and can make an important contribution to improving the EU's resource productivity.

Some of the actions in ETAP are particularly relevant to resource use, notably the development and deployment of funds to support new environmental technologies in getting to market. The ETAP identifies inadequate access to appropriate financing as a significant factor which is preventing the full exploitation of environmental technologies in Europe. This will require new financial instruments and/or better deployment of existing ones.

Revision of the Environmental State Aid Guidelines is required so that they allow effective support for technologies which tackle environmental market failures, including projects involving demonstrations of new technologies which are not yet commercially viable. The guidelines should also take account of off-site environmental benefits.

As the ETAP points out, investment in environmental technologies has the potential to promote sustainable development across the globe, particularly in developing countries. By working closely with developing countries we can help promote innovation and competitiveness by bypassing traditional, polluting and resource-intensive production patterns and by improving eco-efficiency in the use of natural resources. Existing international partnerships, such as the Renewable Energy and Energy efficiency Partnership (REEEP) and Johannesburg Renewable Energy Coalition (JREC), can be used to encourage increased take-up of environmental technologies in developing countries.

Actions

- Member States, the Commission and the European Investment Bank group should work together to review existing mechanisms and how they might be improved and explore the case for other financial instruments to support innovation and the environmental technologies sector.
- The Commission's revision of the guidance on environmental state aids, expected in 2007, should allow more effective support for technologies which tackle environmental market failures;
- There should be better use of EU research, development and demonstration funds, and better uptake of the results under Research Framework Programmes 6 and 7. The new Framework Programme on Competitiveness and Innovation needs to specifically tackle the barriers preventing new ideas in eco-efficiency get to market.
- The Commission should identify and seek to remove perverse incentives, whereby the EU or individual states encourage resource uses that are unsustainable.
- The Commission should ensure that developing countries have access to the results of EU research and demonstration programmes, and that funding mechanisms in this area should encourage Member States to work in partnership with developing countries.

Climate change

Perhaps the most significant environmental impact from human resource use is climate change. Our understanding and evidence of this issue is solid and robust, compared to on many other environment impacts. The Intergovernmental Panel on Climate Change (IPCC) has produced three Assessment Reports, presenting a consensus of opinion that reflects the views of thousands of experts in the field.

There is good evidence that global climate has changed. Average global atmospheric temperatures have risen by more than 0.6 degrees Celsius over the last 100 years. Globally, all of the 10 warmest years on record have occurred since 1990, including 1999, 2000, 2001, 2002 and 2003. The IPCC's Third Assessment Report concluded that "most of the warming observed over the last 50 years is likely to have been due to increasing concentrations of greenhouse gases".

Whilst climate policy will continue to develop through existing processes, it is inconceivable that a holistic strategy on sustainable resource use should not consider the climate change impacts of using those resources.

Actions

- The main aim for EU climate change policy should be to work towards agreement on medium- and long-term strategies for reducing greenhouse gas emissions.
- The EU will also focus efforts on bringing the Kyoto Protocol, the only international treaty which places binding targets on developed countries to reduce greenhouse gas emissions, into force.
- The UK will need flexible, market-based instruments such as the EU Emissions Trading Scheme to deliver our Kyoto and longer-term climate change targets.

Waste minimisation

Decoupling waste generation from economic growth forms a key part of the UK's vision, both in terms of this Strategy and the Thematic Strategy on Waste Prevention and Recycling. Whilst it may be impossible to decouple waste from economic growth in the short to medium term, prevention is crucial to achieving the vision in the longer term.

The UK is cautious about setting waste prevention targets at EU level. There are a number of concerns, not least on how any targets could be set or measured. Simply measuring waste by total weight or volume does not necessarily provide an accurate reflection of its environmental impact. In addition, it is not clear on whom the burden of meeting the targets should be placed and there are limited tools available to governments to achieve prevention targets. Instead the UK supports the development of waste prevention plans. These should be developed and operated locally, and should not be mandated across the Community outside the requirements of the IPPC Directive.

Big gains in waste prevention can undoubtedly be realised by designing waste out of products and production processes (see section on 'sustainable products'). This suggests that there is scope for progress through a sectoral approach to waste prevention. This might include benchmarking best practice as part of a wider set of measures.

Actions

- Member States should be encouraged to develop Waste Prevention Plans.
- Work should be undertaken to develop direct or indirect measures of the significant components of waste and hence of their environmental impact and scope for prevention or recovery.

Transparency in extractive industries

Extractive industries are an important means for growth and development in over 50 developing countries. However, partly due to a lack of transparency, there is presently a close correlation between these countries (rich in natural resources) and countries with high levels of poverty and environmental degradation.

Increased transparency will reduce the scope for corruption – i.e. revenues from resources being siphoned off by individuals and away from contributing to sustainable development. By doing this, it will also help reduce conflict, poverty, environmental degradation, theft and the risk of accidents.

The Extractive Industries Transparency Initiative (EITI) was launched in 2002 at the World Summit on Sustainable Development in Johannesburg. The aim of the initiative is to increase

transparency of payments by companies to governments and transparency of revenues received by those governments.

To ensure that all companies operating in a country are working on a level playing field, it is essential that the countries themselves set the operating climate.

Considerable progress has been made over the last two years with EITI now operating successfully in several countries. However, the important principles behind EITI should now develop into a standard of international best practice. So far, the UK and the World Bank have played a leading role in this, but it is essential that EU partners play a full role in this transformation.

Actions

- The Strategy should endorse the EITI initiative, and encourage Member States to implement EITI principles in conjunction with their extractive companies and developing country governments.
- The Strategy should encourage Member States to contribute to the World Bank-managed EITI Trust Fund for technical assistance to developing country governments that need support in taking EITI forward.

SUSTAINABLE COMMODITIES

The Strategy should aim to improve the environmental sustainability of commodities production and trade. Consumption of goods and services in the EU can have significant environmental impacts outside the EU. More work is required to understand this complex and difficult subject (see separate section), but commodities might prove a good starting point.

The Strategy should:

- Map the policy activity on sustainable commodities already underway at EU and international level in the government, business and NGO sectors. This should seek to identify the activity underway, the commodities concerned, and the aims and objectives in sustainability terms.
- Assess the current evidence base of environmental impacts from commodities outside of the EU (e.g. biodiversity impacts, land take) and the environmental benefits we should be seeking to achieve (can be quantified in specific or more general terms?).
- Identify the scope for further action by the EU. The Strategy should evaluate the scope for commencing new, or building on, current activity; or whether there are gaps in activity that need to be addressed.

One practical approach to tackling this issue is through considering specific commodities. Three of these (timber, palm oil and soybean) are considered below as an example of measures that can be taken. However, this is not an exclusive list, and the Strategy should consider a wide range of commodities with environmental impacts and evaluate the potential actions that can be taken.

Of course, it is imperative that we respect WTO rules, and should not advocate protectionism in contradiction of these rules. The EU is rightly committed to the Doha Development Round, as a means to lift millions out of poverty and of contributing to sustainable development.

Timber

Illegal logging is a major issue, as it:

- denies a livelihood to many poor people .

- robs governments of billions of dollars (the World Bank estimates \$10-15 billion each year in lost revenues).
- results in environmental degradation, including loss of biodiversity.
- provokes and sustains conflicts in several parts of the world.

Combating illegal logging and its associated trade requires action from timber producing and timber consuming countries. This principle of shared responsibility underpins the European Commission's Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan.

The UK strongly supports the FLEGT Action Plan, including the proposal to negotiate voluntary partnership agreements (VPAs) with timber producing countries, underpinned by a new timber licensing scheme and import Regulation. In order to prevent the import and sale of all illegally logged timber, the UK is also keen to explore wider legislative options, and to improve the transparency of revenues resulting from timber and timber products.

The UK believes that public procurement rules can be an important driver in developing markets for timber from sustainable and legal sources, supporting the objectives of FLEGT. In the UK, central Government is required to actively seek to purchase its timber and timber products from sustainable and legal sources. Public procurement guidance has also been developed in France, Germany and Denmark.

Actions

- Rapid progress with implementing the Action Plan on Forest Law, Enforcement, Governance and Trade (FLEGT), including agreement on a Regulation to implement a voluntary timber licensing scheme with timber exporting countries.
- European Commission to publish review of wider options for addressing imports of illegally logged timber.
- Develop minimum timber procurement criteria that can be used in all Member States, initially within the public sector. Such criteria can be based on the experience gained by France, Germany, Denmark, the Netherlands and the UK.
- Improve transparency in revenue flows from logging, building on the model of the Extractive Industries Transparency Initiative (EITI).

Palm oil

Vegetable oil production worldwide totals 95 million tonnes per year, of which over 28 million tonnes are produced by the oil palm. This makes palm oil the world's second largest oil crop after soyoil. Palm oil is an important and versatile raw material for both food and non-food industries, which contributes to the economic development of the producing countries and to the diets of millions of people around the world.

There has been a recent rapid expansion in the production of two major edible oils, soyoil and palm oil. Between 1990 and 2002, the area under palm oil cultivation had increased by about 43% , most of which was in Malaysia and Indonesia – the world's largest producers. While better managed plantations and oil palm smallholdings serve as models of sustainable agriculture, in terms of economic performance as well as social and environmental responsibility, much palm oil is not produced sustainably at present. Development of new plantations has resulted in the conversion of large areas of forests with high conservation value and has threatened the rich biodiversity in these ecosystems.

The Food and Agricultural Organisation's (2003) "World Agriculture: towards 2015/2030" predicts that oil palm industry is set to continue its growth in order to satisfy global demand. However, it is imperative that the expansion must be done sustainably. To ensure that this happens, it is necessary to develop a globally acceptable definition of sustainable palm oil

production and use as well as implement better management practices that comply with this definition. Recently, the Roundtable on Sustainable Palm Oil (RSPO) was established to address this issue and promote the sustainable production and use of palm oil.

Actions

- Member States to actively encourage companies operating in their countries to participate in the Roundtable on Sustainable Palm Oil (RSPO).
- The European Commission and Member States to support:
 - the research and development of definitions and criteria for the sustainable production of palm oil;
 - the development of solutions to practical problems related to the adoption and verification of best practices for plantation establishment and management, procurement, trade and logistics;
- The European Commission to develop a sustainable palm oil action plan, working in partnership with palm oil producing countries. This should explore options for applying the FLEGT model, with its VPAs and import regulation, to palm oil.

Soybean

Increasing global demand for soybean by-products has stimulated dramatic area growth in the last decade. Globally, the area planted to soybeans increased by 26% from 57 million in 1990 to 77.1 million ha in 2002. Most of this growth has occurred in Argentina, USA and Brazil. While this growth has conferred important economic benefits for these countries, further expansion will impact on biodiversity, primarily in the tropical forests and grasslands of Brazil, Argentina and Paraguay. This is especially the case for Brazil where soybean area could potentially increase three-fold over the next 50 years, rising from 18.0 million ha in 2002 to 54.0 million ha in 2052.

The European Union is the most important market for soybean exports from South America. Some 45 percent of exported soybeans and 62 percent of exported soy meal are exported from South America to the EU, accounting for 60 per cent of soybean and 95 percent of soy meal EU imports. In Europe, the imported soybeans are mostly processed into soy meal and soy oil. Soy meal is mostly used for animal fodder.

Actions

- The European Commission to develop a sustainable soybean action plan, working in partnership with producer countries. This should explore options for applying the FLEGT model, with its VPAs and import regulation, to soybean.
- The European Commission to establish a forum to engage industry, civil society groups and Member States in:
 - research and development of definitions and criteria for the sustainable production of soybean;
 - the development of solutions to practical problems related to the adoption and verification of best practices for plantation establishment and management, procurement, trade and logistics.

SUSTAINABLE PRODUCTS

EU work on Integrated Product Policy (IPP) has recognised the importance of considering the whole life-cycle of products, including their use phase. If implemented properly, this approach would help to target the point in a product's life-cycle which can most cost effectively reduce the overall environmental impacts and resource use. It could also help to prevent environmental impacts simply being shifted from one part of the life-cycle to another.

The Commission's current IPP studies on the mobile phone and teak garden chair should be expanded to cover a wider range of products and services. These should focus on products and services that are particularly widespread (i.e. are in common use within public sector, households and the private sector), where the results will have a specific application. They should also be conducted to achieve a broader understanding of the environmental impacts of products and services. Since IPP studies have not yet considered services, this should be prioritised in future work.

IPP can be a useful pointer to where environmental impacts lie, but it is also time-consuming. For example, the mobile phone and garden chairs studies are both taking one year. Either more resource needs to be devoted to IPP or quicker ways of identifying the most important environmental impacts should be found.

One approach is the Eco-design Framework Directive for Energy-Using Products (the EUP Directive). It is estimated that over 80% of all product-related environmental impacts are determined during the product design phase, and some 93% of material used during the production phase does not appear in the final product. Integrating environmental assessment and design considerations as early as possible into the product development process should provide an effective and cost-efficient way to reduce their whole life environmental impacts.

The EUP Directive will tackle the environmental impacts from energy-using products (except transport) and will seek to support delivery of climate change objectives as a first priority. However, other products, individually or in aggregate, have significant energy and non-energy environmental impacts. For example, many of the impacts cited in the Explanatory Memorandum apply equally to non-energy-using products. These impacts include the utilisation of material resources, energy and water both in the manufacturing and in the functioning of the products; emissions associated with the extraction of materials, manufacturing, transport, use and end-of-life management; and generation of waste material throughout the various life-cycle stages, in particular at the end of the useful life of the product.

A similar framework for all types of product could set the general principles and criteria for the establishment of eco-design requirements, while leaving the development and adoption of implementing measures for the selected products to the Commission, assisted by a committee of member states. This process would maximise the environmental improvements through meaningful engagement with industry and other stakeholders and a faster and more structured adoption of implementing measures. It will ensure that the detailed implementing measures will be based on adequate information and analysis, including robust impact assessment.

In product policy, it is important to identify and act upon future risks, based on market and technological trends. For example, there is the risk that demand for new products will open up new channels of consumption, undermining gains made elsewhere, or that the full benefits of industrial innovation and competition will not be brought to bear. Whole life environmental impact assessments might be modified by improvements in repair, re-cycling and re-use techniques, leading to more emphasis on the durability of products than on their replacement.

Internationally, the Strategy should recognise the interdependencies of EU policy aspirations with the environmental product standards which are set or accepted elsewhere in the world. There is the risk that the pace of innovation may be retarded by continuing demand for poor performing products. Equally, there is the opportunity to raise EU standards to global best practice and to work in co-operation with other governments to set standards which encourage innovation and product development at the optimum rate.

Actions

- The EU needs a clearer framework for turning the ideas of Integrated Product Policy (IPP) into concrete action. Such a framework should empower the Community to bring about improvements in specific product areas, selected on the basis of clear evidence about their significance, the balance of environmental, industrial and economic risks and the scope for improvement in resource use and environmental impacts.
- The Commission should establish and publish its evidence base, which should identify the principal environmental policy risks and issues, the associated products and production processes, and the available policy tools which could be brought to bear.
- A promising model for such a framework is the draft Eco-design Framework ('EuP') Directive, which is now progressing through the EU institutions. The principles and approaches in that proposal, which will apply only to products which consume energy in their use phase, could be applied to other types of product. Once established, the EU should consider whether to extend the approach so it is available for any product types that are significant for resource use or environmental impacts.
- In the meantime, the Commission should bring forward its plans for implementing the EuP Directive, which will identify the first set of energy-using products to be the subject of specific measures and which should take the opportunity to address both energy and non-energy impacts at the same time.
- The Commission's work on IPP should be used more actively to drive improvements in the specific policy instruments (such as public procurement) which can help to deliver more sustainable products.
- The Commission's work on IPP should also pursue the scope for more radical models of resource efficiency, for example through service-based rather than product-based solutions, with the aim of 'dematerialisation'.
- Internationally, the Commission should build working relationships with governments in major trading blocks (e.g. China and USA) with the aim of establishing common priorities and opportunities for practical co-operation in encouraging more innovation and competition on product eco-design and standards. This might be done, for example, in seeking mutual representation on standards-setting consultation fora such as envisaged by the EUP Directive and which exist in respect of the EU Energy Star agreement with the USA. The Strategy should explore the possibilities of funding for products-related work through LIFE or Clean Development Mechanism projects.

SUSTAINABLE PROCUREMENT

Public procurement accounts for 16% of GDP in the EU and so represents a potentially powerful economic driver to the uptake of environmental technologies. Public procurement patterns can also send strong signals to other buyers and consumers and can drive down the costs of green and/or new technologies.

The Commission has published figures which suggest that there is wide variation across Member States in their "green" public procurement activities. One study has shown Denmark (50%) and Sweden (40%) leading the way, with the UK (23%) slightly above the EU average (19%). Whilst this data is not robust, it is illustrative of the potential for improvement. This kind of benchmarking data has tremendous potential for driving a step change in the quality and quantity of green public procurement activity, which in turn has the potential to stimulate action in Member States and in the private sector.

To set meaningful targets and enable monitoring, the EU needs to develop a more robust methodology for benchmarking performance across the EU and, in accordance with OECD recommendation (C(2002)3 of 23 January 2002), develop indicators to measure and monitor progress in greener public purchasing. Once a robust methodology is in place, the EU should set targets for the EU average to attain the level of the best by 2010.

Actions

- The short-term aim should be the establishment of the Open Method of Coordination (OMC) mechanism on greener public procurement, and for the Strategy to incorporate an agreement among the Member States on indicators, benchmarking targets and milestones.
- The longer-term aim should be to achieve, by 2010, an EU average equal to what is currently achieved in the highest performing Member States, once robust and reliable benchmarking data has been established. Current data suggests this means moving from an average of 19% to greater than 40%. Member States should also work together to explore ways in which public procurement can stimulate innovation and new technologies.
- The EU should develop a work plan and support mechanism for the timely delivery of the practical prerequisites of procurement, for example, the technical performance measurement methodologies and legally reliable product specifications. This should be based on the underpinning product evidence base and policy risk assessment, looking ahead to anticipate likely technological progress and emergent products and services.

SUSTAINABLE ENVIRONMENTAL SYSTEMS

The sustainable use of natural resources relies on the health and resilience of wider environmental systems being maintained. These wider systems must be protected if the EU is to maintain its capacity to produce resources, and not destroy irreplaceable environmental systems.

Aspects of the environment can be protected and some impacts can be remediated, but some (e.g. non-renewable resources or biodiversity) cannot be restored. Damages due to loss of fertile soils, of water resources, of biodiversity can be irremediable. Even remediation, while technically feasible, may be economically unfeasible, due to its high costs and the lack of appropriate financial provisions.

This means it is important to consider not just our fisheries, but our marine ecosystems; not just our timber products, but the forests from which they are sourced before their capacity is undermined, not afterwards. Maintaining the biological diversity of environmental systems is essential and merits consideration in the Strategy.

As acknowledged in the Commission's Communication on the Thematic Strategy, the EU needs to consider how to ensure the carrying capacity of the natural environment by 'developing knowledge about the relationship between resource use and environmental impacts'. Biodiversity has a role to play here as a barometer of the impact of resource use.

An 'ecosystem management approach' will enable us to take an integrated approach by looking at the entirety of a natural system, rather than the individual elements that make it up. It places emphasis on maintaining the long-term health of the whole system while taking account of human utilisation.

In addition, established long term objectives relating to environmental impacts can be a basis for specific objectives related to the impacts of resource use. For instance, the aims of the 6th Environmental Action Plan in halting desertification and loss of biodiversity both in the EU and on a global scale can be applied to specific resource uses.

Actions

- Commission to take an 'ecosystem management approach' in considering how the EU should manage its natural resources.
- Long-term environmental objectives should provide the basis for tackling the impacts of specific resource uses.

- Encourage standardised modelling of natural resource impacts that can be adapted at regional and local scales through creating a framework for the integration of data and data processing that supports direct delivery of results for research and professional planning. This could, for example, build upon the databases created by the European Topic Centres. To facilitate their use, user-friendly interface from remote-servers should be developed for these databases. Such databases should be linked to allow flows of data between them.
- Discourage the use of resources that place high pressures on environmental systems. As a first step, we should increase our knowledge of the impacts of using such resources through life-cycle assessments. The impact of using high pressure resources on soils, water and groundwater, biodiversity and the probability of natural risks (such as flooding or rock slides) all need to be better understood.

TAKING THE THEMATIC STRATEGY FORWARD

Forward work programme

The Strategy will need to establish a process for implementing its recommendations. One model that has worked well in the UK is a best practice forum of sectoral organisations, known as the Pioneers Group (<http://www.pioneersgroup.co.uk/>). This has facilitated the development and implementation of sectoral sustainability strategies.

This model of an active and flexible network for sharing information and influencing important sustainability debates might work equally well at an EU-level. Such a group could take a life-cycle approach, looking at how to minimise impacts from extraction, through inputs, outputs, distribution, retail, use to disposal.

Sectoral groups can be established quickly, and will not need legislative action to initiate. Similarly, there is no need to create a new European Research Centre. The Commission, Member States and stakeholders can co-ordinate research under, e.g. the 6th and 7th Research Framework Programmes without such a Centre. It will be more efficient for the Commission to contract work from existing structures rather than create a new bureaucracy to manage and coordinate. The time taken to establish, locate and fund a Centre are all delays to identifying the environmental impacts of resource use and developing practical policy solutions.

Action

- Adopt a sectoral approach to implementing the Strategy in specific areas, and avoid bureaucratic process such as an overarching framework directive on natural resources and new research centres.

The business case for improving resource productivity

The Strategy should set out the business case for improving resource productivity. There is evidence that improving resource productivity will make businesses more competitive. The Strategy should collate this evidence, and identify where more evidence is required to establish a clear link between improving resource productivity and economic growth. Some examples are:

- By adopting best practice waste minimisation, UK business could save between Euros 3-4.5 billion per year. This is equivalent to 1-2% of UK manufacturing value added (i.e. its contribution to UK GDP) and 5-7% of manufacturing sector profits.
- Avoiding the associated costs of processing this waste and adopting energy efficiency savings to industry would nearly match the UK's Euros 22.5 billion capital expenditure.
- Some 93% of production materials are never used in the final product and 80% of products are discarded after single use.

- Over 80% of all product-related environmental impacts are determined during the product design phase.

Actions

- Collate the available evidence on the link between resource productivity and economic growth
- The Strategy should commission further work to build a better understanding of the potential value of improvements in resource productivity to the EU as a whole, and how this potential benefit ranks against other improvements in productivity that policies elsewhere in the EU are trying to promote.

Environmental impacts of the EU on non-EU countries

The Strategy should consider the environmental impacts of EU consumption and production patterns on non-EU countries. There is evidence that the EU's environmental impact on other countries, especially developing countries, is increasing. At the same time, we are reducing the pressure on our own domestic environment by extracting fewer material resources. This evidence suggests that the production of goods that place intensive pressure on the environment (e.g. industrial emissions to the atmosphere and water, and heavy metal emissions) have been increasingly imported from developing countries.

Goods and services in the EU have various impacts overseas - not least on biodiversity overseas - through raw materials extraction, food and commodity production, transport, etc. A key question for this Strategy is what the EU ought to be doing to understand and influence those impacts. Simply shifting the geographical location of environmental impacts will not lead to sustainable development. Therefore, as this is a Strategy for more productive use of resources in the EU, it is essential to consider this international dimension.

Action

- More detailed research is required to understand the environmental impacts of EU consumption patterns on non-EU countries. Much current work has focused simply on total flows of resources without sufficient exploration of the resulting environmental impacts. Central to this will be a better understanding of the key sustainability issues in the supply chain.

Measuring progress – targets and indicators

Attempts have been made by various organisations to find a single overarching indicator of resource productivity, e.g. Total Material Requirement (TMR), Ecological footprint analysis, and an Environmental Space measure. Whilst these overarching indicators each have some merits, none of them give a fully balanced or robust view of all the factors we will need to monitor when measuring progress under the Strategy. None takes full account of all the issues involving both the use of natural resources and environmental damage. We therefore feel that the best way forward is to develop a basket of key indicators to monitor the various aspects of the Strategy and not to rely on any one aggregated indicator.

Even with a basket of indicators, the Strategy should make clear that trends shown may be difficult to interpret. Many ecological systems are still poorly understood, and we need to exercise caution when reporting on decoupling indicators, which may appear to convey a positive message (i.e. relative or absolute decoupling) whereas in practice the cumulative impact of the pressure on the environment is unsustainable at a national, local or seasonal level. Ecological processes are non-linear and we know little about thresholds and environmental limits.

Similarly, the Strategy setting a single overall target (e.g. Factor 4) will not be an effective response to decoupling economic growth and the environmental impacts of resource use. Such a target will not be in line with the Commission's thesis in the Communication of October 2003 that we should be primarily concerned about the environmental impacts of individual resource use rather than the total level of resource use. Where targets are set for specific resources or to tackle a specific environmental problem, these should be based on a sound scientific understanding of environmental limits (e.g. a reduction in carbon emissions of 60% by 2050 as recommended by the Inter-Governmental Panel on Climate Change) or an impact assessment demonstrating that the cost-benefits of taking action provide a case for market intervention.

During the Commission's stakeholder consultation on the Strategy, a number of consultees advocated that the Strategy should adopt Factor 4 as a an overall target. However Factor 4 is not a practical target that can be meaningfully measured. A number of EU countries attempted to adopt such an approach following the Rio plus 5 meeting in 1997. None of these countries were successful at applying Factor 4 in real world situations, and therefore the EU would be unwise to sign up to such an approach.

The UK has consulted on a 'basket' of twelve indicators by which the effectiveness of the UK strategy on sustainable consumption and production can be measured and as a means for driving long-term improvements. These are not necessarily the correct 12 indicators for the Strategy, but they provide a flavour of what a basket of indicators might cover. The full list of indicators in the UK consultation is:

Economy-wide decoupling indicators

1. Greenhouse gas emissions
2. Air pollution (sulphur dioxide and nitrogen oxides emissions)
3. Water pollution (river water quality)
4. Commercial and industrial waste arisings, and household waste not recycled

Resource use indicators

5. Material use
6. Water abstraction
7. Homes built on land not previously developed, and number of households

Decoupling indicators for specific sectors

8. Emissions from electricity generation
9. Motor vehicle kilometres and related emissions
10. Agricultural output volume, fertiliser use, methane emissions and the farmland bird populations
11. Manufacturing output, energy consumption, and related emissions,
12. Household consumption, household water and energy consumption, and waste generated.

The main messages from the consultation of relevance to the Strategy are:

- the indicators should take better account of the international impact of UK/EU production and consumption.
- the basket of indicators should give greater weight to the importance of sustainable consumption, separately identifying the direct and indirect impacts of consumption and relating them to particular social groups and patterns of expenditure
- transport impacts were wider than just road transport, and should include aviation and international shipping.
- economic growth needs to be decoupled from social impacts – but much more work is needed to identify the main impacts and devise ways to measure them.

- that the aggregate indicators of the total tonnage of materials used in the economy were complex and potentially confusing, even as part of a wider package of indicators. Much more explanation and analysis was needed and they might be better presented in a disaggregated way, focusing on the resource use implications of international trade and the impact of the extraction of construction materials in particular.

Actions

- The Strategy should establish a basket of indicators since no single indicator can provide a fully balanced or robust view of all the factors we will need to monitor when measuring progress.
- The Strategy should not have a single overall target as it:
 - will not be an effective response to decoupling economic growth and the environmental impacts of resource use.
 - will go against the premise that we should be primarily concerned about the environmental impacts of individual resource use rather than the total level of resource use.
- Where targets are set for specific resources or to tackle a specific environmental problem, these should be based on a sound scientific understanding of environmental limits or an impact assessment demonstrating that the cost-benefits of taking action provide a case for market intervention.
- As part of the basket of indicators:
 - aggregate indicators of the total tonnage of materials are likely to be better presented in a disaggregated way.
 - account should be taken of the international impact of EU production and consumption patterns.
 - common formats for data collection can be established, as can baseline data on resource use.