

DG ENV

Study on how businesses take into account their risks related to biodiversity and ecosystem services: state of play and way forward

Under Framework Contract
ENV.G.1/FRA/206/0073
Executive Summary

September 2010



COWI

DISCLAIMER: The content of this report is the sole responsibility of the Contractor and can in no way be taken to reflect the views of the European Commission.

Executive summary

Study context

According to the Millennium Ecosystem Assessment, the decline in biodiversity and the degradation of ecosystem services have been so significant over the past 50 years that they constitute a major risk to human well-being and economic development, as the natural world will fail to deliver key ecosystem services such as climate regulation, air and water purification and protection from natural disasters. (Millennium Ecosystem Assessment, WRI, 2005).

Over recent years, progress has been made towards better understanding the role of biodiversity and ecosystem services (BES) in contributing to economic performance. Nevertheless BES is still under-evaluated in economic terms, leading to unsustainable use of natural resources. A high level of uncertainty concerning the economic value of BES is regarded a primary barrier to the use of economic valuation of ecosystem services in policy elaboration.

Many initiatives are ongoing to evaluate business risks related to BES and tools are being developed within the financial sector often in collaboration with NGOs. One of these initiatives is the Ecosystem Services Benchmarking tool developed by the Nature Value Initiative¹ (NVI). The NVI tool aims to enable institutional investors to understand how well companies are managing their impacts and dependencies on BES.

However, although there are many efforts underway from both industries as well as from other stakeholders to address the problem of loss in biodiversity, significant challenges remain with respect to the recognition and awareness of the business sector to address the risks of loss in biodiversity. As a result, coherent action is urgently required to halt the loss of biodiversity in order to ensure a healthy ecosystem that can deliver essential services in the future.

In its communication 'Halting the Loss of Biodiversity by 2010'², the European Commission identified a number of key objectives and actions necessary to be put in place to address the risks of degradation of biodiversity, including part-

¹ <http://www.naturalvalueinitiative.org/>

² COM/2006/0216 final: Communication from the Commission - Halting the loss of biodiversity by 2010 - and beyond - Sustaining ecosystem services for human well-being

nerships with business and integration of biodiversity criteria into business decision-making and corporate governance. These were ambitious objectives and these have now been revised and adopted by the Environment Council in its Conclusion of 15 March 2010. The conclusions i.a. state that the aim is:

*'To halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, restore them insofar as feasible, while stepping up the EU contribution to averting global biodiversity loss.'*³

Study objectives

On this background, the current study was initialised by the European Commission, DG Environment, to provide a snapshot of actions taken by business to minimise their risks towards biodiversity and ecosystem services (BES) both in terms of their dependency and their impact on BES.

Some 20 companies and industry associations across eight economic sectors have been interviewed in order to understand what drives companies to address and manage BES risks, to identify the main barriers hindering them in taking further actions, and to gain feedback concerning policy measures that may help remove barriers and accelerate actions to limit biodiversity deterioration and improve the functioning of our ecosystem services.

The sectors analysed in this study are: food and drink production, retail, tourism, bio-tech, and the financial sector. In addition, the paper and pulp industry together with the pharmaceutical sector have contributed through interview with the respective industry associations: Confederation of European Paper industries (CEPI) and European Federation of Pharmaceutical Industries and Associations (EFPIA). The chemical industry was originally included in our gross list of sectors to be investigated, but failed to provide input. Part of the reason might be that the organisation receives a large number of requests for input to studies; another reason seems to be that the sector feels less concerned with matters linked to biodiversity.

Overall, in fact, the project experienced a general reluctance by industry to participate in the current study apparently due to many requests from other perceived similar studies.

Study approach

It should be emphasised that the results of the current study by no means are statistically representative; they are rather based on a combination of literature research and interviews with companies and industry associations across the selected economic sectors. The food and drink production sector was selected due to its high dependency and impact on BES; the retail sector because it constitutes the main link to the consumer; the tourism sector because of its high dependency as well as impact on BES; the biotech industry because of its per-

Study based on case studies

³ http://ec.europa.eu/environment/nature/biodiversity/policy/index_en.htm

ceived dependency on BES and finally the Financial sector was selected as it is perceived as an enabler for companies to address BES due the increased importance of sustainability reporting and business risks management.

Literature review

As part of the study a substantial literature review was carried out on the subject of biodiversity and business risks. This resulted in:

- A framework for understanding companies' dependencies of BES, the way companies have an impact on BES and the type of risks that companies need to manage to ensure company performance in the short, medium and long term.
- A snapshot of the type of activities reflecting 'a state of play of actions' currently initiated by businesses to address BES risks. This screening involved approximately 70 companies across more than 20 industrial sectors in more than 20 countries around the world.
- An insight into the results derived from similar studies analysing drivers for and barriers to the involvement of businesses in addressing BES risks.
- An insight into the industrial sectors most dependent on BES and thereby most concerned about addressing BES risk.

Key issues to be addressed

Based on the findings from the snapshot and the literature review, the case studies focussed on the following three questions:

- What drives corporate decision-makers to address BES?
- What are the main barriers for companies to address BES?
- What are the main policy measures that could help companies to address BES risks more efficiently?

Key findings of the study

The study has revealed a number of commonalities across the various sectors investigated as well as sector specific actions. The following paragraphs highlight some of the main findings:

BES as part of the sustainability concept

It is clear from the study that businesses are very concerned about sustainability, but are less aware or concerned with BES as an isolated issue. The interviews showed that 'BES' is a difficult concept to 'sell' to both to consumers and businesses, since they see it as too diffuse, complex and difficult to define. As a result, 'biodiversity', from a policy point of view, needs to be bundled together with more known and accepted concepts such as 'sustainability' or 'ecological footprint'. Furthermore, it needs to be "broken down" into manageable and measurable pieces to become a language people will understand, e.g. by buying a certain type of coffee labelled 'Rainforest Alliance', the consumer will know

that the coffee beans are grown under environmentally sustainable conditions, or that agricultural diversity is more favourable to biodiversity than monoculture.

Large companies are frontrunners

It appears that large corporations are the most visible frontrunners to address BES. There are indications that SMEs in general lack behind mainly due to lack of resources, lack of influence (against sub-suppliers) and lack of knowledge. However, some SMEs are driven by corporate history and being frontrunners in this field is a fundamental basis for their business. Industry associations and/or industry forums or roundtables promote 'best practices', which in particular benefit SMEs.

Industry sectors facing immediate pressures or where the materiality of ecosystem dependence is very clear and already affecting the economic performance of the company appear to be most advanced in addressing BES (e.g. food and drink, tourism).

Industry initiatives are often comprehensive and include both R&D activities, working with NGOs and creating consumer awareness

The study has revealed that there are many positive initiatives within companies, NGOs and industry associations for addressing biodiversity. Often, these actors can be said to be ahead of public initiatives – taking voluntary measures driven by other sources of motivation than legal obligations.

Nestle, as an example, is co-funding the 'Honey Bee research project' addressing pollination and is investing in an R&D cacao centre in the Ivory Coast to improve the quality and quantity of the production of cacao in a sustainable way.

Delhaize, a leading Belgium grocery retailer, supporting sustainable fishing initiatives, such as Marine Stewardship Council (MSC) are offering certified seafood in its stores.

Club Med, one of the world's largest tourist operators, has a comprehensive strategy for sustainable development and protection of the environment. It has for instance implemented a 'Green Area Management Plan' which is being implemented across all its 80 resorts worldwide directly addressing BES through management practices. Likewise, Club Med put high priority to raise awareness of their guests by means of posters, signposted walks, and activities for children to promote environmental issues.

In general, the study has revealed that many companies are working closely with NGOs to address BES, using the specific expertise of the NGO, to communicate corporate responsibility but also using it as a means of certification.

Building competitive advantage by setting clear targets on sustainability and by communicating a green image

Moreover, industry initiatives are often very ambitious with clear long-term targets for sustainability measures and investments into specific focus areas. A growing trend across the food and drink production industry is to have **direct procurement**. In order to better 'control' upstream suppliers, many companies will have their own **suppliers' codes** specifying growing practices and other CSR measures to be fulfilled by the supplier.

Nestle, as an example, is working with the NGO Forest Trust to ensure that the company has no deforestation footprint related to palm oil and Nestle is aiming at a 100% sustainable supply of its use of palm oil by 2015.

The majority of the large companies interviewed publish Corporate Responsibility Reports and Sustainability Reports including environmental indicators, such as CO₂ footprint, water and energy consumptions and recycling rates. Dedicated BES indicators are more rarely used with the exception of the reporting of Club Med related to the management of their resorts.

Lack of political commitment

The study also revealed that ***industry is missing political commitment to complement industry initiatives***. For instance, due to the complexity of the combined food production systems where each player is only a small fraction of the entire system, industry on its own cannot alone address and solve sustainability of the entire production chain.

The main drivers for industry to address BES risks

A mix of measures

Most of the companies interviewed are already undertaking a number of measures in order to manage the BES-related risks. In fact, they see it as a long-term process towards a sustainable strategy. Addressing BES is embedded in the concept of sustainable production through the conduct of life cycle assessments (LCAs) of all major product lines, identification of clear targets for sustainable production, certification of strategic supply chains, investments into R&D and investment into consumer communications (which often goes beyond labelling).

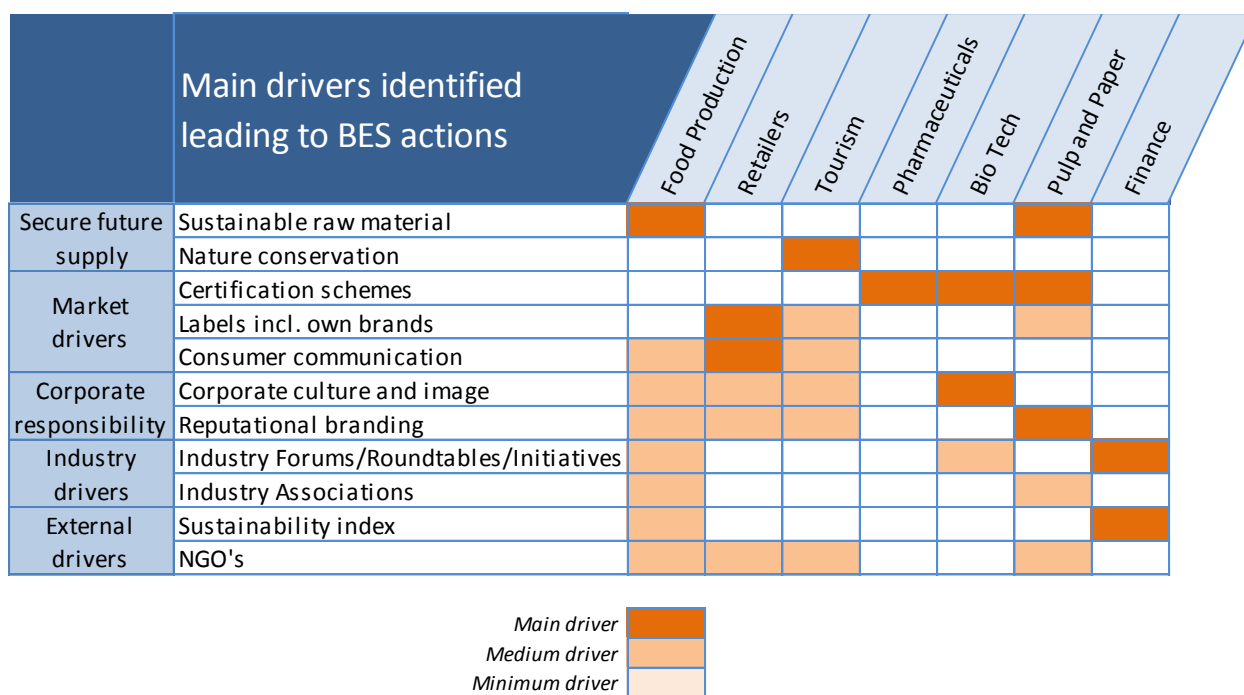
A range of drivers

As mentioned above, initiatives are not always driven by legal obligations. According to the interviews carried out in this study, the main drivers for industries to address BES risks obviously differ from sector to sector:

- For those sectors most dependent on BES, e.g. food production and pulp & paper, 'securing future supply' is the main driver.
- For tourism, nature conservation (e.g. nice scenery, clean beaches, rich nature, etc) is the most important driver in order to be able to attract tourists to a given area.
- For those sectors closest to the consumer, e.g. the retail sector, the demand for 'labels' (e.g. 'green' brands, certified products, eco labels) and promotion of corporate image are seen as the most important drivers.
- For other sectors, the findings of the study indicate that BES is simply not an issue being addressed beyond fulfilling existing legislation concerning environmental impact. For industries such as the chemical and pharmaceutical industry, other issues such as energy and water consumption are of higher priority and BES issues are further down the list

of risk concerns. According to EFPIA⁴, the main pressing issues for the pharmaceutical industry concern improving the image of the industry by addressing 'animal testing', high medicine prices, access to medicines by the developing countries and to response to future challenges such as the risk of pandemic diseases, etc.

Figure 1 Main drivers for BES actions



The main measures taken by industry to address BES risks

How companies are addressing operational risks

For most of the companies investigated during the case studies, operational risks are seen as a matter of securing future supply and to secure the freedom to operate. Securing future supply obviously transforms into different types of measures depending on the kind of business you are in and where in the supply chain you are operating.

...through securing future supply

For a food production company, such as Nestle or a brewery such as Plensky Prazdroj, securing future supply means having access to food ingredients such as milk, cacao, coffee beans, clean water, barley, corn, wheat, etc. also in the long run - this increasingly is being translated into 'securing supply in a sustainable' way. Implementation of '*responsible sourcing principles*' (Plensky Prazdroj) and '*Supplier codes*' specifying sustainable farming practices (Nestle) is examples of such measures being implemented by large food and drink production companies. As food is increasingly becoming a scarce resource due to increased demand combined with competition for land, securing future supply is becoming even more important. For a company operating in the tourist industry, securing future supply means conserving the nature to ensure continuously

⁴ European Federation of Pharmaceutical Industries and Associations

attraction of the tourists also in the distant future. For a specific resort owner the local dimension of nature conservation therefore is important, while for a tour operator one could argue that as long as there are new 'virgin' places to promote for tourist purposes, you need not worry about nature conservation. Club Med does seem to worry and their 'green management plan for resort management' is good example of that. Likewise, Skallerup Klit's environmental policy also aims at preserving the surrounding nature of the resort by clear policies and management practices.

For the retail industry addressing operational risks translates into supplying sustainable products through 'own *green labels*', certified products, eco labels, etc and to an increasing degree by promoting local sourcing.

...and securing freedom to operate

Securing long run freedom to operate is turned into activities concerned with corporate responsibility. LCA (life cycle assessment) has become a widespread tool used across all the industrial sectors studied to document the environmental flows to and from the environment of a given product. Results of LCAs conducted are often published and many companies also set targets for when they expect to have completed LCAs of certain product-groups. Also assessments of ecological footprint are commonly used by companies to document and communicate a given products use of CO₂, water, energy, etc.

...which is closely related to managing reputational risks...

Internalisation of sustainable management practices involving *sourcing, traceability schemes*, etc is seen by the companies as a process that takes several years to implement and a process which has just recently started. 'We take baby-steps' as expressed by Delhaize. It is nevertheless a part of corporate strategy driven by the conviction that the future will require all companies to be 'green' and it is therefore a matter of being ready in time and to benefit from a 'first mover's advantage'.

Although companies increasingly are jumping on the 'green' wagon, they do hesitate while it comes to claim 100% sustainability whether related to a specific product, a product line, a plant or a resort. As explained by Nestlé: 'we are not yet so active in communicating what we are doing (to address BES) since we want to make sure that everything is documented and traceable before we go public'.

The main barriers identified impeding company action

Most of the companies interviewed are already undertaking a number of measures to manage their BES-related risks. Nevertheless, the study identified a number of barriers impeding companies in taking BES-related actions.

Overview of main barriers hindering further BES actions

There are three levels of barriers - internal, external and market barriers and the different sectors face different barriers as indicated by table below. The table provides an overview of the combined barriers identified to the further uptake of BES actions across the industrial sectors studied.

Figure 2 Main barriers identified across sectors

Main barriers identified hindering BES actions		Food Production	Retailers	Tourism	Pharmaceuticals	Bio Tech	Pulp and Paper	Finance
External barriers	Lack of inclusion of BES in regulation.	Main barrier	Main barrier				Main barrier	Main barrier
	Contradicting EU Policies.	Secondary barrier						
	Lack of scientific insight and evidence of BES.		Secondary barrier					Less important barrier
	Lack of indicators to measure BES.	Main barrier	Main barrier				Main barrier	Less important barrier
	Lack of pricing of natural resources (internalisation of external costs).	Less important barrier						
	Lack of technological solutions.			Main barrier				
Internal barriers	Lack of resources in particular for SMEs to invest in BES.	Main barrier	Main barrier	Main barrier				
	Cost of traceability and verification (LCA).	Secondary barrier	Main barrier					
	BES not perceived to be a prioritised risk issue				Main barrier	Main barrier		
Market barriers	Lack of supply of sustainable and certified input material	Secondary barrier					Secondary barrier	
	Lack of consumer awareness of BES.	Secondary barrier	Secondary barrier	Secondary barrier				
	Lack of demand for 'BES neutral' products	Secondary barrier	Secondary barrier	Secondary barrier			Main barrier	

Main barrier

Secondary barrier

Less important barrier

External barriers

Lack of inclusion of BES in regulation

Lack of inclusion of BES in regulation refers to the fact that BES issues are not explicitly addressed in various policies and/or regulations, such as EIA Directive (85/337/EEC), agricultural policies, WTO agreements, labelling schemes and standards. In particular this applies to the food production, retail, pulp and paper and finance sectors. The interviewed actors in the food production sector proposed addressing BES in existing policies, such as the agricultural policies and regional policies, as a means to attract focus to BES. At the same time, it could contribute towards solving the problem of the lack of available raw materials that are produced in a sustainable way, e.g. food and timber.

In addition, the financial sector calls for a uniform EU regulatory framework, including BES in e.g. environmental reporting of companies and environmental liability assessment. When it comes to the operational level, there is a lack of concrete handles, definition tools and concepts to address biodiversity.

Lack of scientific insight and evidence

Particularly the retail sector emphasised that lack of scientific insight into and evidence of the complexity of BES was considered a barrier. If a retailer is considering taking a certain product off the shelf, he/she often lacks scientific knowledge to assess independently whether it is a sustainable product or not.

The example mentioned concerned palm oil and difficulties in assessing whether this is 'safe' or not.

Lack of clear BES Indicators

As a means to benchmark progress and to communicate the subject, lack of clear indicators to measure BES were found to be a strong barrier. While there are already relatively unambiguous indicators for CO₂ emissions and other environmental indicators, e.g. for water, clear biodiversity indicators is lacking. Therefore, BES is currently addressed through the sustainability concept, although sustainability can be hard enough to define and covers much more than BES.

Lack of pricing of natural resources

Lack of pricing of natural resources is also seen as a barrier, but perhaps a more theoretical one. If water, sustainable food commodities, transport, etc, would already reflect the external costs to the environment, many of the market failures leading to a loss in biodiversity would be overcome. Unfortunately, there is no easy answer to how external costs related to BES can be internalised into marketed goods and services.

Internal barriers

Specific SME barriers – knowledge and resources

In sectors that acknowledge the importance of BES, the study found that SMEs generally lag behind the large corporations in addressing BES risks. The main reasons were believed to stem from lack of awareness of the issue, lack of knowledge and lack of financial and human resources to invest in addressing BES issues in the SMEs. As opposed to the large corporations, which usually have one or more departments devoted to CSR, environmental and sustainability issues, SMEs often have neither dedicated staff nor time to invest in these issues.

The cost of tractability and verification

The cost of traceability and verification are major issues in all analysed sectors. It is, however, a process that is just starting in the large companies. It is time consuming and resource intensive, and the large companies usually start with strategic product groups: their own label in the case of the retail sector or 'sensitive' commodities in the case of coffee, tea, palm oil, etc.

Lack of importance of prioritising BES risks among companies

For some of the sectors, notably the pharmaceutical and chemical sectors, BES issues are simply not very high on the agenda compared to other reputational challenges such as how to provide cheaper medicine to the third world, and future strategic challenges in terms of developing the right medicine for future diseases, etc.

Market barriers

Lack of supply of sustainable raw material

By contrast, the food production and retail sectors see shortage of certain 'sustainable' commodities as a general concern. By way of example, the supply of certified timber is limited; the same is true for 'rainforest certified' products.

Lack of consumer awareness

Lack of consumer awareness of BES risks is definitely a strong barrier per se, while there is an increasing awareness of 'green' and sustainable products as the

demand for organic food products is increasing in many countries. This was also reported by Delhaize, which has been successful in marketing its 'BIO' brand, and by Nestlé through its 'Rainforest certified' coffee products. Again, the dilemma boils down to the lack of dedicated biodiversity indicators.

Lack of demand for 'BES neutral' products

Although there is a general trend towards an increasing demand for organic products, these products still constitute a fraction of the overall demand and still only represent a niche market for the most resourceful consumers. To the broader public, willingness to pay for 'green' products, that are often 10-15 per cent more expensive, remains an issue.

In the pulp and paper industry, the labelling schemes FSC⁵ and PEFC⁶ are hardly recognised by the consumers and cover only 15 per cent of the market demand.

Industry feedback concerning policy recommendations

During the interviews with industry stakeholders, possible public initiatives aiming at improving the way businesses take their BES-related risks into account were discussed. It came as a general message that BES should be more integrated into EU policies, as industry is not able to lift the entire responsibility alone and is dependent on 'Governments' to mainstream BES issues.

According to the stakeholders, action is needed on several levels. The main recommendations are summarised below.

Labels/certification

Labels and certifications are regarded as fruitful and important drivers for action e.g. because it can constitute a competitive parameter for many companies. It was emphasised that:

- Labels should be Pan-European as opposed to national in order to reduce the number of similar labels.
- Schemes should be dynamic allowing progress, such as 'best of class'.
- It is important to pay attention to the costs of the label schemes in order not to create a barrier for SMEs by imposing unreasonable cost burdens for certification/ achieving the label.
- NGOs have an important role as promoters of labels and it may be considered how this can be supported by the EU.

Forums/platforms

Forums and platforms are working well as a pre-competitive initiative to agree on common practices (e.g. information sharing), political standpoints, conferences, etc. These kinds of initiatives should be further promoted.

⁵ Forest Stewardship Council

⁶ Programme for Endorsement of Forest Certification

Consumer awareness Information campaigns should be used to a larger extent in order to stimulate the demand for BES neutral products and services. The awareness of climate change has worked well and there might be lessons to learn from that.

R&D (EU Level, FP7, FP8) Research and development should be promoted in order to improve our understanding of BES, create BES indicators, and other scientific evidence. EU should play a role here and funds could be allocated through R&D Framework Programmes.

Sustainability reporting Sustainability reporting is increasingly used and BES should become a more integrated part of sustainability reporting for instance by making sustainability reporting compulsory.

Study recommendations

Increased BES focus in EU policy The study reveals that industry is lacking a clear political commitment and vision to complement industry's own actions and investments. The interviewed businesses recommend that existing EU policies, notably CAP, Structural Funds and R&D programmes, can be used to leverage and promote biodiversity. Industry considers that it can itself only act until a certain stage, and then it will face shortages of 'sustainable' or 'neutral' BES services such as food products, timber, and natural resources used in the production process.

Learning from existing initiatives and cooperate with industry Numerous lessons can be learnt from existing initiatives, private as well as public. Hereunder, sustainability reporting, labelling schemes and collaboration schemes between NGOs and industry as leverage mechanisms to empower and promote the protection of biodiversity. More attention should be given to the functioning of existing tools, such as LCA and companies' own supplier codes including BES requirements for sustainable practices. Business sees biodiversity as a part of a broader sustainability concept, realising this circumstance should be acknowledged while formulating policy actions in the area.

Moreover, it is important to work with industry associations and industry forums and roundtables to define appropriate biodiversity indicators to be included in existing or emerging labelling and consumer communication schemes. Biodiversity indicators are to complement indicators such as water consumption, CO₂ and energy use.

Focus on key sectors as a starting point Initially efforts should concentrate on those industrial sectors are most dependent on BES, are most willing to act and at the same time could make a big contribution to the improvement of BES, such as the food and drink industry, forestry including pulp & paper, and the tourism sector.

Support R&D It is important to support research in order to improve our understanding of BES and create BES indicators, since actions have to be accompanied by monitoring.

Initiatives to increase consumer awareness

Consumer awareness should be increased and promoted across EU27. The results from climate change actions can be perceived as successful and lessons should be learned from campaigns and other initiatives in this area.

Use of Labelling

Regarding labelling, it is important to keep it simple and it is recommended to use energy labelling of household appliances as a role model for developing a European labelling scheme.