



European Environmental Bureau

Federation of Environmental Citizens Organisations
Boulevard de Waterloo, 34 – 1000-Brussels
Tel.: + 32 2 289 10 90 Fax: + 32 2289 10 99
E-mail: info@eeb.org

A THEMATIC VISION : TOWARDS WASTE PREVENTION AND STEERING OF WASTE STREAMS

EEB position paper (2nd version)⁰
on the Communication from the Commission
'TOWARDS A THEMATIC STRATEGY ON THE PREVENTION AND
RECYCLING OF WASTE'
COM(2003) 301 final

Brussels, December 2003.

Introduction

The EEB welcomes the Commission's Communication on waste prevention and recycling. The Communication launches a broad consultation on the EU's future policy in this area. It invites stakeholders to comment on the policy options set out in the Communication. The EEB believes that more than 25 years of experience in tackling the environmental burden of waste provide the Commission with solid background to shape the future of EU waste policy towards the primary goal of waste prevention.

The EEB agrees with the priority options for consultation outlined in the Communication: how to avoid generating waste, how to reduce the use of resources, and how to generate a level playing field to boost environmentally sound recycling operations, while tackling eco-dumping. The EEB fully supports the Commission commitment to take stock of the wide stakeholder consultation to determine its final objectives for waste prevention and recycling and decide what measures to propose for final adoption by the Council and the European Parliament by 2004.

However the Communication fails to sets up an ***overarching vision for EU waste policy – namely to make concrete progress on waste prevention by 2010 and be effective in steering waste towards the best ecological***

⁰ This version builds on the paper released in July 2003, incorporating subsequent input from the EEB's participation in various stakeholder events, including the EEB's own Stakeholder Conference on the Thematic Strategy held in November 2003.

recycling and treatment options. In order to translate this vision into a tangible destination the strategy must define the vision in concrete terms, through common EU level targets, on waste prevention and reduction of disposal.

Background

Article 174 of the EC Treaty establishes, as general principles applying to any environmental policy of the Community, that preventive action should be taken and that environmental damage should as a priority be rectified at the source. The preventive principle in environmental policy plays a key role, since it helps avoid action being taken in order to repair damages, therefore substantially contributing to the saving of resources.

Prevention is at the basis of Directive 75/442/EEC on waste (the so-called 'framework Directive'). This Directive requires Member States to encourage the prevention or reduction of waste production and its harmfulness, in particular by developing cleaner technologies, cleaner products and appropriate techniques for the disposal of dangerous substances contained in recoverable waste. In order to attain this objective Member States are under the obligation, *inter alia*, to draw up waste management plans.

The 'Community Strategy for Waste Management'¹ (1996) stated that **waste prevention is the primary** objective for a good EU waste management policy. The 1996 Strategy clearly laid out its main philosophy in terms of waste management policy through the hierarchy of principles of waste management policy and the producer responsibility.

'...[T]he generation of waste is a form of pollution and at the same time a 'waste' of resources. Therefore the key objective of any Community waste policy based on the precautionary and preventive principle must be to prevent the generation of waste and, furthermore, to reduce the content of hazardous materials in waste... In the long term such a policy will require the integration of any waste-related problem already into the production phase and thus help to promote sustainable development.'

The 1996 Strategy had already indicated that the Community's achievements in the prevention of waste generation are not satisfactory, given that waste quantities have on average continued to grow. The Communication confirms this general trend.

¹ COM(96) 399 final of 30.07.1996: 'Communication from the Commission on the review of the Community Strategy for Waste Management'.

The Sixth Environment Action Program (6EAP)² established four major priorities:

i) tackling climate change, ii) nature and biodiversity, iii) environment and health and iv) ensuring the sustainable management of natural resources and wastes.

As for the fourth priority issue, the main objective of the 6EAP is:

'To ensure the consumption of renewable and non-renewable resources and the associated impacts do not exceed the carrying capacity of the environment and to achieve a decoupling of resource use from economic growth through significantly improved resource efficiency, dematerialization of the economy, and waste prevention.'

Regarding the specific objectives for waste prevention and management, the 6EAP affirms that:

*'Waste prevention is closely linked with improving resource efficiency, influencing consumption patterns, and reducing the waste arisings associated with products throughout their lifecycle of production, use and the point where the product itself becomes a waste. **Action to prevent waste must, therefore, be first and foremost done 'at source'**. This means, on the one hand, finding ways of extending product life-spans, using less resources in products, shifting to cleaner, less wasteful production processes and, on the other hand, influencing consumer choice and demand in the market place in favour of less wasteful products and services.'*

The OECD has developed a solid conceptual framework on waste prevention, which the EEB supports, as described below³.

Waste prevention encompasses activities that reduce both the **quantity** and the **hazardous character** of wastes. These activities are applicable on a life-cycle basis.

The consensus understanding of waste prevention achieved by OECD countries (OECD 1998) can be broken down into three types of actions:

- **Strict Avoidance:** Strict Avoidance involves the *complete* prevention of waste generation by virtual elimination of hazardous substances or by reducing material or energy intensity in production, consumption, and distribution;

² COM (2001) 31 final: 24.01.2001: 'Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on the sixth environment action program of the European Community, 'Environment 2010: Our future, Our choice'.

³ OECD, ENV/EPOC/PPC(2000)5/FINAL: Strategic Waste Prevention: OECD reference manual, August 2000.

- **Reduction at Source:** Reduction at source involves minimising use of toxic or harmful substances and/or minimising material or energy consumption; and
- **Product Re-use:** Product re-use involves the multiple use of a product in its original form, for its original purpose or for an alternative, with or without reconditioning.⁴

According to the OECD, while it is important to include waste prevention as the preferred first step in waste policy, it is also necessary to recognise that it differs significantly from the other waste-related activities:

- Waste prevention occurs *before* products or materials are identified or recognised as waste;
- Waste prevention is potentially diverse in its *effects* on materials and products. It may impact the quantity, hazard, and energy content of materials and products that may become waste; and
- Waste prevention is also defined by *changes*, such as avoiding, reducing, or reusing materials. In general, it can be more difficult to implement and measure these types of activities than more traditional waste management activities.

The Commission should lead the process by bringing all the above aspects into a comprehensive EU waste prevention strategy. More than a decade of experiences in waste prevention show that many authorities and industries have taken practical actions to reduce wastes not so much as an environmental imperative, but as an economic and legal one. Almost 10 years ago, the experience from 150 manufacturing companies in Poland, representing more than 20 branches of industry, was that a '20-40% reduction of wastes is possible with nil or minor investment' (where investment is required, there is usually no need for external financing, and the payback period is often within a few weeks or months). A further 30% reduction was thought to be possible through investments in technically proven and profitable equipment or process changes (OECD/CCET 1995). Polish industry led the way. The other EU-24 should follow.

⁴ Product re-use defined here is considered to be re-use 'at source' (home composting, re-use of clothes and equipment etc), to be differentiated from re-use 'separate from source', ie after these products enter into the formal waste management system.

Key Measures to Develop a Thematic Strategy on Waste Prevention and recycling

In the field of waste prevention there is a significant discrepancy between commitments and results achieved. This Communication should aim at bringing this policy aspect to the attention of all concerned actors as well at analysing the options available for putting the principle of waste prevention into concrete operation, so to contribute to closing the gap between objectives set and results achieved.

Waste prevention strategies and targets are not discussed in depth by the Communication, although concrete experiences⁵ have been developed in many EU countries as it is shown by a comprehensive report on waste prevention initiatives successfully undertaken in 7 EU countries published in 1999⁶. The European Topic Centre on Waste and Material Flows (ETC/WMF) has also prepared a comprehensive reference document encompassing waste prevention policy measures and concrete case studies⁷. Propositions on waste recycling measures are also very modest. Therefore, the Communication does not propose any avenue for ***serious discussion on waste prevention and recycling*** to ensure the implementation of preventive actions as a priority for achieving the environmental goals of the EU.

The EEB is concerned that the Communication does not build on the past commitments in terms of ***applying the waste hierarchy***. This should have been done by the development of legal, economic and administrative instruments well before launching a public consultation on the new strategy. The European Parliament, in its resolution of 14 November 1996⁸, asked the European Commission to present Proposals for Directives on a number of Priority Waste Streams, including waste from electrical and electronic equipment and to base such Proposals on the principle of producer responsibility. In the same resolution, the European Parliament requested that the Council and the Commission put forward Proposals for cutting the volume of waste as well as reducing the presence of hazardous substances in waste such as chlorine, mercury, PVC, cadmium and other heavy metals.

The Council, in its resolution of 24 February 1997⁹ reaffirmed that waste prevention should be the first priority for all rational waste policy, in relation to minimising waste production and the hazardous properties of waste. It invited the Commission to promote and the Member States and economic operators to establish and pursue quantitative targets of an indicative nature, which aim to achieve significant reductions in the amount of waste generated and increased levels of reuse, recycling and recovery. It requested the Commission to consider and report to the Council as soon as possible as to

⁵ See the UNIDO/UNEP 'National Cleaner Production Centre Program' as an example of waste prevention programs on a voluntary basis and the Waste Prevention success stories database put together by the ETC/WMF <http://waste.eionet.eu.int/wastebase/prevention>

⁶ Oekoinstitut 'Waste Prevention and Minimisation', Final Report, 29 July 1999. This report was commissioned by DG Environment.

⁷ ETC/WMF 'Preventing Pollution': <http://waste.eionet.eu.int/prevention>

⁸ OJ No. C 362, 2 December 1996, p.29.

⁹ OJ No. C 76 , 11 March 1997, p. 1.

what additional actions might be taken at Community level to promote waste prevention.

The Sixth Environmental Action Programme reinforced this message when it invited the Commission to develop and implement measures on waste prevention and management by developing a set of quantitative and qualitative reduction targets covering all relevant waste, to be achieved at Community level by 2010. And to prepare such a proposal for such targets by 2002.

The EEB recommends the following key measures be addressed in the Commission's strategy for Waste Prevention and Recycling. (In the interests of providing a more structured debate on the actions outlined below, further details on proposals, in particular on targets and some key policy tools, are included in more detailed annexes to this paper):

Waste Prevention

- The strategy should include both quantitative and qualitative waste prevention targets taking into account the Parliament and Council previous demands on priority waste streams, the 6th EAP demands, and building on national experiences of waste prevention (see Annex I);
- Promote the adoption of regulatory measures and economic incentives to reduce the volume of waste produced¹⁰. 'Pay As You Throw (PAYT)' schemes should be promoted to reduce the volume of waste generated, especially for the municipal solid waste (see Annex I);
- Promote the adoption of regulatory measures for the substitution of hazardous substances in the production processes, and ;
- Foster the development and adoption of clean technologies and products (see Annex I);
- Promote the conversion of products to services, whenever possible, to reduce the volume of waste produced (see Annex I);
- Evaluation of the potential of EU-wide resource taxes to reduce material flows and promote prevention (see Annex I).

Re-use

- Promote the re-use of useful products both 'at source' and 'separate from source' (see Annex II);

¹⁰ In a recent example the Irish government has introduced a 15-cent tax on disposable plastic bags dispensed by shoppers, which the government affirmed to have obtained more than 90% reduction on the consumption of these bags. *World Environment News*, 22 August 2002.

Waste Recycling

- The Strategy should include quantitative targets for reduction of waste for disposal (residual waste reduction) to steer waste management towards re-use and recycling (see Annex III)
- Expand the amount of recycled materials in all products by setting clear targets and incentives. This can be achieved by increasing the use of market-based instruments, and regulatory instruments to ensure that material recovery remains the most competitive solution for waste management;
- Identify ways to eliminate existing barriers to the competitiveness of the recycling sector by improving market conditions for recycled materials;
- Promote selective collection and high quality composting of biodegradable waste;
- Minimise the transboundary movements of waste for recovery operations by promoting the development and the harmonised implementation of environmentally sound waste recycling and treatment technology across the EU.
- Evaluation of the potential of EU-wide resource taxes to reduce material flows and promote recycling.

Priority waste streams

Although the Commission had emphasised the necessity of focusing on priority waste streams in the past, this approach has been played down in the recent Communication. The EEB believes it is important to have specific waste stream targets to tackle the complexity of waste management by having clear goals and objectives that can be measured and evaluated over time. Material based waste stream approaches should only be considered in addition to product based waste stream approaches and should be regarded with caution, as far as they may potentially undermine product focused producer responsibility.

Consequently, the EEB insists on the ***adoption of the following Directives regarding priority waste streams*** as early as possible. These should take into account the implementation of the Producer Responsibility and specific requirements on waste prevention and re-use. Technical standards for recycling and re-use facilities should be included within the regulations.

- Revision of the Commission Directive 98/101/EC on batteries and accumulators;
- A Biodegradable Waste Directive;

- An End-of-life tyres Directive; and
- A Construction & Demolition Waste Directive.

Bans and taxes

Other important measures promoted by the EEB that will help shaping a concrete strategy for waste management are:

- Bans or taxes applied to certain waste streams destined to landfills should be harmonised throughout Europe to give clear signals towards waste prevention and materials recycling. It would also help avoiding waste shipments for disposal from countries with higher taxes to countries with lower taxes.
- The same kind of bans and taxes described above should also be applied to incinerators. Moreover, the emission limit values established by the Waste Incineration Directive are higher than those adopted by some national regulations (e.g. the Netherlands). They are far above the values achieved in modern waste treatment plants and contain substantial derogations for co-incineration. In addition, other waste treatment operations are excluded by the scope of the Directive (e.g. feedstock recycling) unless their input material is defined as waste. For all these reasons, amendments to this Directive to correct these inadequacies are necessary.

An EU waste Steering Group

Overall, **transparency** throughout the whole decision-making process plus the importance of ensuring the **equal participation** and treatment of all stakeholders are two crucial points to guarantee consensus and effective application of waste management policies throughout Europe and share experiences. Solutions encouraging source separation, reducing landfilling, increasing recycling and waste prevention have been developed in many EU countries. Most of the cases present promising results and they may serve as inspiration for further initiatives on waste prevention.

Therefore, the European Commission should set up EU level waste Steering group and working groups on waste prevention and recycling as early as possible.

The main aim of the working groups should be to:

- Assess existing national and regional initiatives on waste prevention and fine tune the selection of tools available and necessary to achieve the waste prevention and reduction targets;
- Identify the 'vision' and 'best practice' for what could realistically be achieved in the medium term on priority waste streams;
- Analyse the reasons why not all Member States are using these 'best practice' techniques (the 'barriers');

- Propose specific measures and actions that can be taken at the European level to address these reasons and overcome these barriers.
- Assist in the design of indicators and guidelines
- Share best practice

Other Points Regarding the Communication and Stakeholder consultation

Waste Definition

The EEB has consistently opposed the revision of the waste definition¹¹, as requested by some industry representatives on the grounds that waste used for energy recovery should be considered as product and useful resource and not as waste.¹² Among the main points made by Commissioner Wallström in her speech at the European Waste Forum on 21st June 2001 entitled 'Future Directions for European Waste Policy' she made the following on the waste definition. *'I would even be open to discuss the waste definition if convincing reasons could be found to do so'*. But before changing anything so fundamental, one should make sure that this is justified and necessary. As the arguments put for such a change have so far not been convincing, she advised that it would be more promising in the short term to continue to work on the details concerning specific waste streams and to use the existing possibilities of Community legislation to alleviate the perceived administrative burden on recycling companies.

Waste Recovery and Disposal

The EEB believes that existing EU waste laws include a general incentive to direct waste towards cheaper, low quality installations in order to avoid the costs to meet stricter standards set at national level. As a consequence eco-dumping is still an acceptable practice within the EU.

The classification of a waste treatment process should be considered in the light of the broader environmental objectives set by the EU legislation. Therefore, the EEB suggests that criteria for credible recovery should be adopted as a basis for further discussion on how to reach these objectives.

A clarification between waste recovery and disposal operations is critical for the implementation of waste management policies, which aim at achieving the highest environmental standards in the EU. Drawing the line between recovery and disposal will have an impact on the waste shipments regime, the fulfilment of mandatory recycling and recovery targets (Packaging, End-of-Life Vehicles, Waste Electrical and Electronic Equipment Directives) and the planning of waste treatment facilities for recovery and final disposal¹³.

¹¹ Ferrigno, R., European Environmental Bureau, June 2003, 'To Solve the Waste Problem by Renaming it?: A contribution to the discussion on the waste definition'.

¹² Towards a Low Waste Europe - 10 Key Issues, April 2001.

¹³ European Environmental Bureau (March 2003): 'EEB Policy Statement on Credible Recovery Operations'.

Cost Benefit Analysis

Conventional cost benefit analysis (CBA) is not suitable as the major tool for decision-making when the main goal is to protect human health and the environment. CBA imposes market calculations on non-market values such as the worth of human life and ecosystem services. Other more comprehensive tools, such as environmental accounting, have been developed in an attempt to capture the hidden costs of environmental pollution¹⁴. However, given the ultimate limitations of the monetisation of environmental and health benefits and costs the final decision on complex issues regarding environmental and human health should prioritise moral and political determinations, acting in particular on the basis of precaution.

Timetables

With regard to the different measures eventually contained in the strategy paper the EEB also recommends that the strategy should distinguish between:

- measures to be dealt with still within 2004 e.g. the directives on bio-waste and batteries, clarification of the definition of recovery and disposal and development of proposals on other priority waste streams
- measures for the medium term (2003-2005) e.g. actions illustrated in Annexes I and II of this paper, and
- long-term measures such as achievement of the 2010 and subsequent waste prevention and disposal reduction targets

Thematic Strategy stakeholder consultation

The EEB believes the stakeholders input into the process of developing the Thematic Strategy should focus on setting up a credible 'road-map' towards the fulfilment of the policy commitments on waste prevention and recycling. Consultation should be very well structured and organised, with the aim of moving from the current logic of random and independent lobbying efforts to constructive and open discussion of the various, and sometimes conflicting, proposals on the table.

It is probable that the final text of the Thematic Strategy Commission Decision will have to be drafted sometime before the Summer of 2004. Taking into consideration the urgent nature of setting up concrete measures such as targets and the large diversity of propositions the Commission no doubt receives the EEB feels that it is crucial for the quality and balance of the outcome that the Commission steer the stakeholder consultation in a more focused and structured procedure.

¹⁴ See United Nations publication on « Environmental Management Accounting Procedures and Principles', 2001, ISBN 92-1-104503-7.

One option is convening a series of ad hoc Thematic Strategy debate working groups allowing for systematic discussion of the various stakeholder proposals, running from January to June 2004. Each session could address one or several Stakeholder proposals hence providing for real and coherent participatory process.

WASTE PREVENTION

Introduction

Proper implementation of an EU strategy on waste prevention provides at the same time the tools for implementation for reduction of use, and of impacts of the use, of natural resources, in other words the waste prevention strategy is a key block in the achievement of the Thematic Strategy on Sustainable Use and Management of Natural Resources.¹⁵ By the same token, qualitative (hazardous) waste prevention reinforces the orientation of the Commission's chemicals policy reform proposal.¹⁶ These are just two synergetic examples underlining the necessity for a strong waste prevention vision, and road map, at the EU level.

Target setting is the most effective way to establish a common global vision on waste prevention, these targets should be laid down within the Thematic Strategy on the Prevention and Recycling of Waste.

The importance of setting targets was stressed again recently by the European Parliament in its call for the Commission to head the invitation of the Sixth Environmental Action Programme, to *develop a set of quantitative and qualitative reduction targets covering all relevant waste, to be achieved at Community level by 2010.*¹⁷

Furthermore, it is evident that national authorities, on all levels, have recognised the value of quantitative prevention targets.

For example the Finnish National Waste Plan (1998-2005) aims at slowing the increase in the total amount of waste such that 15% less waste is generated (than forecasted) by 2005. The Danish Waste 21 policy (1998-2004) seeks to stabilise the total volume of waste by 2004 and to gradually reduce it thereafter. The Dutch Third National Environmental Policy Plan states that the growth in waste generation over the period 2000-2010 should be 20% less

¹⁵ For further information, see "Initial EEB proposals for an European strategy on sustainable use and management of natural resources – Preliminary comments on *Towards a thematic strategy on sustainable use of natural resources* (COM(2003) 572)", 14 November 2003.

¹⁶ Proposal for regulation of the European Parliament and of the Council concerning the registration, evaluation, authorization and restrictions of chemicals (REACH), establishing an European Chemicals Agency and amending Directive 1999/45/EC and regulation EC on persistent organic pollutants COM(2003) 644, 29 October 2003.

¹⁷ European Parliament resolution on the follow-up report on Council Directive 75/442/EEC (Waste Framework Directive) (COM(2003) 250 of November 2003 reads – "Regrets that the Commission has not yet adopted proposals to develop a set of quantitative and qualitative reduction targets covering all relevant waste, to be achieved at Community level by 2010; considers that the current statistics, although still partly deficient, can and need to serve as a starting point for the adoption of reduction targets if the 2010 target is to be met, given that the first set of harmonised statistics will only be available in 2006 at the earliest; reiterates its invitation to the Commission to come forward with such a proposal, at the latest before the end of its mandate"

than the growth in the economy, and the Spanish National Plan for Municipal Waste (2000-2006) stresses that by 2002 there should be a reduction of around 6% in the generation of municipal waste in tonnes/capita/year¹⁸. It would therefore seem logical that the Commission, build on and harmonise these intentions and establish a common EU-wide minimum benchmark in the form of EU waste prevention targets.

The EEB proposes that a suitable target would be a 20% reduction in the total production of waste¹⁹, both quantitative and qualitative, by 2010. This should be set as a legally-binding goal, applicable to each Member State individually.

Given the crucial but sensitive nature of laying down such a vision the EEB calls on the European Commission to propose and discuss in a structured way, with all stakeholders, concrete proposals for waste prevention visions and tools to achieve them.

“What gets measured gets done...” ie, the importance of reporting and indicators. The Waste Framework Directive²⁰ requires all Member States to prepare waste management plans in order to implement the main objectives of the Directive. The first priority of the Directive is to *encourage the prevention or reduction of waste production and its harmfulness*. However, the Framework Directive (article 7), and indeed daughter directives, have failed to provide specific waste prevention requisites, limiting the focus merely to lower priority and inferior waste management options like recovery and disposal operations.

Recently the Commission has published general guidelines, prepared by the European Topic Centre on Waste and Material Flows (ETC/WMF), on how to prepare waste management plans. The EEB proposes these guidelines be revisited in order to incorporate demands for reporting on concrete (ie quantified) national, targets, timelines and implementation measures regarding waste prevention. The Commission should also ensure the adoption of the ETC/WMF guidelines for waste management plans by all Member States. However, generation of comparative data for global progress evaluation will also require that standardised EU waste prevention reporting indicators will need to be established and used..

Focusing on key tools. Whilst the waste prevention toolbox contains a wide variety of potential policy tools the EEB feels that it is necessary to focus on some key tools at the EU level. The EEB proposes that the Commission, whilst not losing sight of the complete range of tools, concentrate its resources by prioritising 2-3 key tools as a platform to achieve the targets set. In the EEB’s opinion these tools could be: Cleaner Production (CP) to deal with industrial materials and wastes, and economic tools such as pay-as-you-throw (PAYT) schemes to tackle municipal solid wastes. A third priority tool,

¹⁸ ETC/WMF database on waste management plans for the European countries:<http://waste.eionet.eu.int/wastebase/plans>

¹⁹ All waste covered by the Waste Framework Directive (75/442/EEC) and Mining wastes.

²⁰ Council Directive 75//442/EEC of 15 July 1975.

which tackles both fronts, is product design policy²¹. The latter tools, in particular, have strong synergies with and should be coupled, as far as possible, to individual producer responsibility in order to promote design for waste prevention.

Priority waste prevention tools

Industrial waste prevention – shifting to best practice in Cleaner Production

Cleaner production advocates a paradigm shift from pollution control through waste management to pollution prevention or cleaner production through changes in production processes, raw materials input and product design. By fully adopting cleaner production tools, industry will be adopting a life cycle approach to its production, analysing its raw material input to avoid hazardous materials, conserving energy and materials, and improving health and safety conditions at work. The EEB supports the UNEP's definition of cleaner

Box 1: Definition of Cleaner Production

Cleaner Production is *the continuous application of an integrated preventive environmental strategy to processes, products, and services to increase overall efficiency, and reduce risks to humans and the environment*. Cleaner Production can be applied to the processes used in any industry, to products themselves and to various services provided in society.

For production processes, Cleaner Production results from one or a combination of conserving raw materials, water and energy; eliminating toxic and dangerous raw materials; and reducing the quantity and toxicity of all emissions and wastes at source during the production process.

For products, Cleaner Production aims to reduce the environmental, health and safety impacts of products over their entire life cycles, from raw materials extraction, through manufacturing and use, to the 'ultimate' disposal of the product.

For services, Cleaner Production implies incorporating environmental concerns into designing and delivering services.

production as shown in Box 1²².

Cleaner Production (CP) is also a way of taking responsibility for the final disposal of its products by influencing the kinds of consumer goods put in the market. This will have a positive impact on waste management practices when those products eventually become waste and have to be handled by competent authorities.

A wide range of industry-specific resources for Cleaner Production are available world-wide. The UNEP's International Cleaner Production Information Clearinghouse (ICPIC), for example, contains nearly 600 case

²¹ Also for product design policy, targets and timelines are an important pre-requisite and benchmark. For more detail on the necessary elements for implementation of an EU level product design policy see EEB position papers on IPP– *EEB Response to the Commission Green Paper on Integrated Product Policy*, April 2001 and *An Environmental NGO vision paper towards a European Integrated Product Policy*, March 2003 at www.eeb.org/activities/product_policy/main.htm

²² UNEP web site (http://www.unepie.org/pc/cp/understanding_cp/home.htm).

studies, more than 150 CP contacts world-wide, CP-related policies and publications. Other organisations have also developed comprehensive information databases on Cleaner Production like the European Topic Centre on Waste and Material Flows section on prevention²³.

Many different Cleaner Production demonstration projects have been developed around the world in the past decade. Most of the CP projects were done with low cost and low technology options that were easy to implement. Cleaner production investments have usually low pay back periods due to the potential resource conservation and increased productivity²⁴. An analysis of 500 case studies has demonstrated that 70-100% reductions in air emissions, water discharges and hazardous and non-hazardous solid wastes are possible through cleaner production²⁵. Different European demonstration projects have shown that *even in highly developed countries, industries could reduce a further 30-60% of their pollution by adopting additional CP techniques*²⁶.

Several Cleaner Production centres and institutions have been created to promote capacity building on CP. There is currently a global Cleaner Production network of more than 100 CP centres operating in about 40 countries. In 1994, the National Cleaner Production Centres (NCPC) Program was launched by the United Nations (UNIDO and UNEP²⁷) with the intent to promote cleaner production in developing countries. The Program currently has 25 National Cleaner Production Centres and a few sector-specific cleaner production programs and projects around the world. The six basic services provided by the NCPCs are: 1) awareness raising on CP; 2) in-plant CP assessments and demonstration projects; 3) capacity building and training on CP; 4) help to obtain financing for CP investments; 5) disseminate technical information; and 6) provide public policy advice²⁸. NCPCs have conducted more than a thousand demonstration projects in diverse industrial sectors world-wide.

Nevertheless, despite the success of a wide range of Cleaner Production and CP programmes, CP concepts and tools are still far from being the standard practice within industry. One important reason is that most are voluntary programs relying upon the success of awareness raising, demonstration projects, technical assistance and training and sometimes, direct financial aid.

Experts in the Cleaner Production field emphasise the following²⁹:

²³ <http://waste.eionet.eu.int/prevention>

²⁴ Global Status 2002: Sustainable Consumption and Cleaner Production, UNEP. ISBN 92-807-2073-2.

²⁵ El-Kholy O.A. Cleaner Production. Encyclopedia of Global Environmental Change. John Wiley & Sons, Ltd 2002.

²⁶ Williams D. and Warford J. Donor strategies and methodologies for promoting cleaner production in developing countries. December 2001.

²⁷ UNIDO – United Nations Industrial Development Organization; UNEP – United Nations Environment Program

²⁸ National Cleaner Production Center's Activities, UNEP web site: <http://www.uneptie.org/pc/cp/ncpc/activites.htm>.

²⁹ Presentation by Frans Verspeek, IVAM at EEB Conference on the Thematic Strategy on Waste Prevention and Recycling, November 2003

- 1) An extensive knowledge base, illustrating large potentials in waste prevention, has been developed under the Cleaner Production program through case studies. What is needed now is not more case studies but institutionalisation and intensification of the uptake and use of this knowledge. The existing information networks are not working and the information is not getting to the decision-makers, both in individual companies and in authorities dealing with licensing.
- 2) There is a great deficiency of well resourced infrastructure supporting the use and effective networking of information generated by the Cleaner Production programs. Surprisingly these deficiencies are more conspicuous in traditional `Western` European countries compared with Central and Eastern European and non-European Countries.
- 3) The link between development funding criteria and Cleaner Production benchmarking is not being made in practice. Cleaner Production benchmarks could be used as application and award criteria for both EU level – Structural Funds, and National and Regional – Economic Development funds. The same can be said for International Funds – such as those for the World Bank.

Municipal waste prevention through Pay-As-You-Throw

Variable-rate pricing, or pay-as-you-throw (PAYT), is a system by which customers are provided with an economic signal to reduce their waste because garbage bills increase with the volume or weight of waste they dispose. In addition to driving prevention of waste at source, variable rates can reward all behaviours – re-use, recycling and composting – in contrast with other programs like recycling schemes that only promote recycling (waste diversion)³⁰.

PAYT schemes are already well established and largely applied with increase in use of electronic systems and adaptation of tariffs to encourage waste prevention in Austria, Finland, Germany, Luxembourg, Sweden and Switzerland.³¹ Belgium and Italy are experiencing a very fast evolution in applying fees. Denmark, the Netherlands, France and Ireland are evolving slowly but with promising avenues from the Ministries of the Environment of the latter two countries in favour of larger application of fees³².

³⁰ Skumatz L.A. Variable-rate or “pay-as-you-throw” waste management: Answers to frequently asked questions. Reason Foundation policy study 295, July 2002.

³¹ Proietti, S. The application of local taxes and fees for the collection of household waste: local authority jurisdiction and practice in Europe. Report for the Association of Cities for Recycling, Brussels: ACR. *In Waste Collection: To charge or not to charge?* Report commissioned by IWM(EB). Eunomia research & consulting, March 2003.

³² Proietti, S. The application of local taxes and fees for the collection of household waste: local authority jurisdiction and practice in Europe. Report for the Association of Cities for Recycling, Brussels: ACR. *In Waste Collection: To charge or not to charge?* Report commissioned by IWM(EB). Eunomia research & consulting, March 2003.

According to SERA³³ there is a significant amount of source reduction currently resulting from the existing variable-rate programs in the US. The estimated source reduction from variable-rate waste-disposal programs is between 5-7% of the total effect of these programs. Even though only 20% of the population is covered by these rate-incentive programs, SERA estimates 1.3 million tons are being source-reduced from the existing variable-rate communities.

It is also important to notice that compostables and recyclable materials are given incentives (less costly) in relation to residual waste, but are still payable so that the best option is to prevent waste at source and do home composting³⁴. Italian householders doing composting in the backyard are allowed a 20% reduction of the variable cost element. This serves as an incentive to participate in home composting, thereby encouraging waste prevention. Similar schemes are found in Sweden where about 60% of the municipalities have organised schemes for home composting of food wastes, with an associated reduction of the waste fee³⁵.

An important advantage consequence of PAYT schemes is the increased rate of separate collection of recyclables observed. For instance, the waste collection efficiency for paper and cardboard is 71% and 41% for Danish municipalities with and without weight-based waste collection schemes, respectively. Moreover, the extent of composting in private gardens is also higher in municipalities with weight-based schemes. 59% of the households with a weight-based scheme practice home composting compared to 21% of the households with a traditional scheme³⁶.

One of the primary conditions for a good quality PAYT system is the source separation of waste and providing and informing those that must pay with clear alternatives to producing the waste whose collection is now charged for. At the same time, PAYT schemes must be applied nation-wide to prevent cross-municipality-border movement of waste and also to survive in the face of the pressures of traditional waste management programs (like meeting incineration capacity demands).

Experts in the PAYT field emphasise the following³⁷:

- 1) In order to create the necessary framework for PAYT EU waste policy should require that Member States establish targets for constraining waste production, these can take the form of both prevention targets (prevention at source) and reduction of residual waste (reduction of waste to disposal).

³³ Skumatz L.A. Measuring source reduction, Skumatz Economic Research Associates (SERA),2000. *In* Skumatz L.A. Variable-rate or "pay-as-you-throw" waste management: Answers to frequently asked questions. Reason Foundation policy study 295, July 2002.

³⁴ *Idem* 12

³⁵ Hogg, D. "Financing and Incentive Schemes for Municipal Waste Management. Eunomia research & consulting.

³⁶ *Idem* 12

³⁷ Presentation by Joe Papineschi, Eunomia at EEB Conference on the Thematic Strategy on Waste Prevention and Recycling, November 2003

- 2) EU waste policy should require that Member State legislation does not prevent implementation of the polluter pays principle (PAYT) at the household level (at the moment, countries like the UK forbid the application of PAYT schemes)
- 3) PAYT should be introduced hand in hand with certain requirements –
 - a) minimum quality selective collection system such as for paper, biowaste, packaging and large or bulky household items (furniture etc)
 - b) the charging system should reflect the cost of the refuse collection system, in other words, it should encourage citizens to reduce the frequency as well as the overall quantity of their set-out of their residual waste. The best successes have been seen in systems that combine both weight and container size and/or collection frequency based mechanisms. For systems such as PAYT to be successful however they must be carefully tailored to the specific national, regional and even local realities

What can be done at the EU level?

The EEB believes the most important element in the future Thematic Strategy is to set up clear targets. These targets define the waste prevention vision and form the benchmark against which to design policies. Effective development of priority implementation tools should enable Member States to work systematically towards achieving these targets and so avoid the mistakes committed in the Fifth Environmental Action Programme, whereby targets were set with no resources put into developing and stimulating the tools to achieve them.

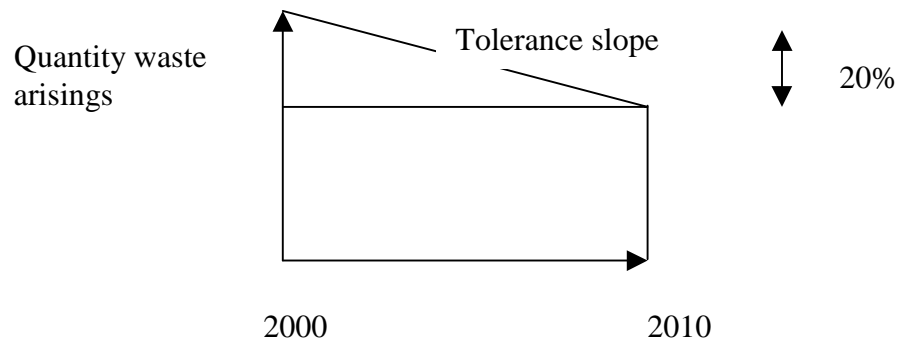
The EEB therefore, calls on the Commission to adopt the following actions and commitments, to implementing measures, in a future Commission Decision on the Thematic Strategy for Waste Prevention and Recycling:

- 1) Lay down an EU waste prevention vision defined by a binding target for reduction in waste production of 20% by 2010 taking 2000 as base year. The target of 20% reduction should be interpreted as 20% reduction in quantity of MSW arisings, 20% reduction in Industrial waste arisings and a 20% reduction in hazardous waste arisings, for each Member State individually.

The setting of targets should be supported by legally binding implementing measures (in a regulation or alternatively a waste prevention directive) setting up a formal accompanying process, on Member State progress towards the targets (see Box 2 below). This can be modelled on the approach that has been adopted for achieving EU air quality objectives.³⁸

³⁸ ³⁸ As laid down in the first air quality daughter directive (99/30/EC) setting up obligations for member States to prepare action plans showing how they will achieve the air quality policy

Box 2.



The legal provisions should ensure that Member States will have to provide regular monitoring reports on their progress towards the targets, measured against the 'margin of tolerance' slope set. If Member States exceed the specified margins of tolerance within defined monitoring years, they should be required to provide concrete action plans showing concretely how the use of specific waste prevention policy instruments, of their choice, such as pay-as-you-throw or sectoral Cleaner Production measures, will bring them within the margin of tolerance. The effectiveness of these plans should be subject to regular Commission and Parliamentary scrutiny.

- 2) Work with the ETC/WMF to develop a detailed mandatory use template for waste prevention reporting by Member States, in the waste management plan guidelines. The template should be, revisable every three years in order to allow it to evolve with increasing availability of waste prevention mechanisms.
- 3) Develop harmonised EU indicators (by specific regulation) on waste prevention evaluation and reporting, with differentiation for the requirements of MSW and Industrial waste streams. These indicators are necessary ingredients of the waste prevention reporting.
- 4) Amend existing Regulations on the criteria for EU level Structural funding of projects in order to give priority to waste prevention – in particular the use of Cleaner Production benchmarks. These should exist on EU level and can subsequently be used as guidelines for national and International level for regional Economic development funds and International Development Projects.
- 5) Create a Member State fund and/or Bureau to oversee an EU network of free-of-charge Cleaner Production technical assistance

objectives (limit values) including reporting and assessment mechanisms evaluating the progress and the triggering of further obligations on excedance of a given *margin of tolerance*.

centres, to provide information exchange and stimulate the use of Cleaner Production methods. Establish guidelines for including waste prevention criteria in the industry permitting process, including measures such as obligatory use of Cleaner Production benchmarking information (ie 'best case' studies) available through the Cleaner Production Network) in industrial licensing and permitting procedures.

- 6) Ensure that Member States respect article 15 of the FWD and harmonise Member States legislation in order allow the application of the polluter-pays principle at the household level,. A Directive should set up rules and criteria for implementing PAYT, define reporting obligations and formal PAYT best practice knowledge sharing mechanisms at the EU level.
- 7) Expand the application of Individual Producer Responsibility in order to steer towards design for waste prevention for priority, end-of-life product waste streams such as batteries, construction waste products, furniture and tyres – see Commission waste strategy as reviewed in 1999.
- 8) Set up a permanent EU level Waste Prevention working group with the mandate to advance all the issues outlined above and additionally, to develop Community Policy on actions that can target consumption and life-style issues as related to waste prevention. For example the impact of advertising (positive and negative) and campaigns on perceptions of quality of life and impacts of use of products and services.
- 9) In conjunction with the TSSUNR³⁹, establish a working group to identify which priority resource material stream taxes would have the most impact and which environmentally harmful subsidies need to be abolished.

³⁹ TSSUNR – Thematic Strategy on the Sustainable Use and Management of Natural Resources

Annex II

WASTE REUSE

There are two kinds of re-use, re-use 'at source' (home composting, passing on of clothes equipment etc) and re-use 'separate from source', currently classified as recovery, in this case recovery (often through re-conditioning) of the service provided by a waste product that has entered the formal waste management system. Re-use is therefore the highest priority of waste recovery and should be recognised as such in the waste hierarchy. To this end the Commission should set out clear objectives and incentives for reuse activities in systems of separate collection of waste and should support actors already actively engaged in reuse.

Taking into account the importance of re-use the EEB calls on the Commission to adopt the following action in the future Commission Decision on a Thematic Strategy for Waste Prevention and Recycling:

10) Ensure that EU waste legislation foresees the establishment of a system of accredited reuse and repair centres. Such centres should have first choice access to separately end-of-life-products. Reuse centres should be accredited and licensed in a similar but distinct way to waste treatment centres with requirements appropriate to their nature, respecting appropriate environment and health and safety standards.

Annex III

WASTE RECYCLING

The EEB calls on the Commission to adopt the following action in the future Commission Decision on a Thematic Strategy for Waste Prevention and Recycling:

11) Lay down an EU waste recycling vision defined by a binding target for reduction in waste to disposal (landfill and incineration) of 40% by 2010 taking 2000 as base year.

These targets must be accompanied by the supporting policies such as:

- o bans for certain easy to recycle waste streams going to landfill and incineration
- o set recycling quota for certain waste stream, inclusion of technical standards for recycling in waste stream legislation

