# PLASTIC WASTE IN THE ENVIRONMENT



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# **KEY ISSUES**

**Objective of the Green Paper:** The Commission presents its ideas and options for the future regulation of plastic waste and requests the parties affected to provide a response.

Parties affected: Manufacturers of products containing plastic, waste management companies, consumers.



Pro: The applicable EU law on waste must be complied with in all Member States.

**Contra:** (1) The "waste hierarchy" in any case only permits landfill as a final option. A general ban on using landfill and the imposition of recycling requirements for plastic waste is misguided.

- (2) The methods of complying with the waste hierarchy should be decided by the Member States. An EU-wide obligation for pay-as-you-throw schemes, deposit and return systems as well as "obligatory charges" such as for plastic bags should not therefore be introduced.
- (3) Product design rules based on the Ecodesign Directive massively restrict the manufacturers design possibilities and the consumer's freedom of choice. This cannot be justified on the basis of avoiding possibly incorrect waste disposal.

# CONTENT

#### **Title**

Green Paper COM(2013) 123 of 7 March 2013 on a European Strategy on Plastic Waste in the Environment

### **Brief Summary**

### Context and objectives

- The consumption of plastics and uncontrolled disposal of plastic waste are increasing significantly.
- Due to its durability, plastic waste can place a heavy burden on the environment.
  - Plastics contain numerous additives which are e.g. toxic or carcinogenic.
  - Fine particles of plastic ("micro-particles"), which arise from the degradation of plastic waste in the environment or are contained e.g. in scrub creams can become dispersed to the farthest corners of the world and severely harm the food chain.
  - Plastic fragments can distribute persistent pollutants via the food chain ("Trojan horse effect").
- The dangers arising from plastic waste would be "significantly lower if existing European waste legislation was properly implemented" (p. 7).
- The Green Paper and accompanying consultation (26 questions) are intended to initiate a discussion on the options for better management of plastic waste.
- The aim is, in particular,
  - to reduce the risks posed by plastic waste to the environment and human health, and
  - improve "resource efficiency" by way of the design of plastic products and by the recycling of plastic waste [cf. Communication COM(2011) 571; see <a href="mailto:cep**PolicyBrief">cepPolicyBrief</a>**].

#### Giving precedence to recycling

- The recycling ("material recovery") of plastic waste is, "as a matter of principle, a better option" than energy recovery or landfill (p. 10).
- In the EU, plastic waste is mainly sent to landfill (2008: 48.7%) and only a "small fraction" (p. 4) recycled (2008: 21.3%).
- The Commission is calling for compliance with the "waste hierarchy" under Art. 4 Waste Framework Directive (2008/98/EC), under which the avoidance, re-use and recycling of waste takes precedence over other forms of recovery (e.g. incineration) and removal (e.g. landfill).
- The Commission is therefore considering
  - a gradual phasing out or a ban on using landfill for plastic waste by amending the landfill Directive (1999/31/EC) (p. 10 et seq., Question 4),
  - measures, e.g. taxes, to reduce the incineration of plastic waste in favour of recycling (p. 11, Question 5),
  - mandatory separate doorstep collection of plastic waste in conjunction with pay-as-you-throw schemes for residual waste (p. 10, Question 6),
  - additional targets beyond the packaging Directive (94/62/EC) for the recycling of plastic waste (p. 11, Question 7).



#### Composition and design of plastic products

Changes in the composition of plastics and the design of plastic products may increase their ability to be recycled and reduce the risk to the environment.

#### Additives

The Commission is considering,

- the reduction of "dangerous additives in plastics" e.g. plasticizers, stabilizers, colourants,
- the identification of "all relevant Substances of Very High Concern" by 2020 and their inclusion in the Candidate List for an approval procedure under the REACH Regulation (No. 1907/2006) (p. 13, Question 12),
- notification of all those involved in the recycling process, by way of safety data sheets showing the chemical composition of plastics (p. 13, Question 13).

#### - Biodegradable plastics

"Biodegradable plastics" can generally only biodegrade under constantly high temperature and humidity in an industrial composting installation and are not (yet) suitable for many applications. The Commission is therefore considering

- making a clearer distinction between "naturally compostable" and "biodegradable" plastics to allow proper disposal and introducing a duty of information in this regard (p. 17, Question 20),
- "determining those applications for which biodegradable plastics "deserve to be promoted" (p. 17, Question 19).

#### - Bio-based plastics

- "Bio-based plastics" (market share under 1%)
- are manufactured from renewable raw materials such as maize, rice, sugar cane and potatoes,
- are not necessarily biodegradable,
- may compete with food crops due to the land required for cultivation.
- The Commission is considering "promotional measures" for bio-based plastics (p. 18, Question 22).

#### - Product design

Plastic is generally considerably more durable than the products which are made from it. The Commission is considering,

- the reinforcement of existing ecodesign requirements for plastic products regarding re-usability, durability, reparability and modular design with replaceable components pursuant to Art. 9 Waste Framework Directive (2008/98/EC) (p. 15, Question 16),
- taking action against "planned obsolescence" which is built in by manufacturers when designing plastic products, e.g. by way of predetermined breaking points (p. 15, Question 15).

## ► Influencing consumer behaviour

- The Commission is considering providing consumers with "clear, simple and concise" information on harmful additives, recyclability, compostability, resource efficiency and the environmental effects of a plastic product during its overall life cycle, so that they can make "an informed choice" (p. 13, Question 11).
- The Commission wants to give plastics a value in order to influence consumer behaviour and prevent littering. The Commission is therefore considering
  - the introduction of deposit and return systems for "certain" products e.g. PET beverage bottles,
  - the introduction of a lease system for "certain" products whereby the manufacturer remains the owner of the product, collects it after use and treats it in an environmentally friendly manner.
  - the introduction of "market-based instruments" such as obligatory charges for plastic bags which reflect "the true environmental cost" of short-lived plastic products (p. 16, Question 17).

## Marine protection

- The extensive waste patches in the Atlantic and Pacific oceans are estimated to be in the order of 100 Mt.
  About 80% of this is plastic waste which could remain there for hundreds of years causing substantial harm to marine life (p. 5).
- Marine pollution by plastic waste is a cross-border problem and requires international protective measures (p. 9).
- The Commission is considering an EU-wide quantitative target for the reduction of marine litter (p. 19, Question 24).

#### **Policy Context**

Plastic waste is currently only regulated indirectly by EU law. The Waste Framework Directive (2008/98/EC) sets out the recycling target for all household waste including plastic waste (Art. 11 (2)), the Packaging Directive (94/62/EC) sets out a recycling target for plastic packaging (Art. 6). The Marine Strategy Framework Directive (2008/56/EC) generally aims to achieve a "good environmental status" in the marine environment by 2020 (Art. 1 (1)). The follow-up measures to this Green Paper are to form an integral part of a reform of waste law to be concluded in 2014. As part of the ongoing revision, existing targets for waste recovery and landfill as well as



five Directives on various waste sources – battery Directive (2006/66/EC), end-of-life vehicles Directive (2000/53/EC), packaging Directive (94/62/EC), PCB/PCT Directive (96/59/EC), sewage sludge Directive (86/278/EEC) – are being examined.

# **Options for Influencing the Political Process**

Leading Directorate General: DG Environment

Consultation procedure: All members of the public may respond by 7 June 2013;

http://ec.europa.eu/environment/consultations/plastic\_waste\_en.htm

# **ASSESSMENT**

### **Economic Impact Assessment**

#### Ordoliberal Assessment

Since the improper disposal of plastic waste gives rise to significant effects which are detrimental to the environment and health, state action is justified.

The waste policies of the Member States differ greatly from one another however. This is due, on the one hand, to differing starting conditions, and on the other, to varying levels of commitment in waste management policies. Some Member States still do not fulfil the minimum requirements of the Waste Framework Directive. The principle aim of EU waste management policy must therefore be the compliance with existing EU law

**In all Member States**, because this significantly reduces the damaging effects of plastic waste on the environment. This requires, in particular, that residential and industrial waste is comprehensively collected and existing landfills must comply with the standards set out in the landfill Directive so that, as far as possible, waste is prevented from encroaching on the environment.

#### Impact on Efficiency and Individual Freedom of Choice

The waste hierarchy of the Waste Framework Directive already obliges the Member States to regard the use of landfill only as a final resort for disposing of plastics, permitted in certain circumstances. The Commission should effectively monitor and enforce compliance with existing legislation. A general ban on landfill, a tax on energy recovery and targets for the recycling of plastic waste are misguided: The levels of plastic waste which are to be recycled, used for energy recovery or sent to landfill should be decided by weighing the costs against the gains, under compliance with existing European environmental law. A general preference for recycling at the expense of energy recovery is not economically justifiable. Where a landfill is properly managed, although the plastic is not re-used, the environmental impact is limited.

The methods used by the Member States to comply with the waste hierarchy should be left up to them. That is the only way that the varying population densities, existing recovery structures and the recycling preferences of the public can be taken into account. An EU-wide obligation for pay-as-you-throw schemes, deposit and return systems for plastic products as well as "obligatory charges" - e.g. for plastic bags are therefore misguided.

Product design rules based on the Ecodesign Directive massively restrict the supplier's design possibilities and the consumer's freedom of choice. These restrictions cannot be justified by reference to avoiding possibly incorrect waste disposal.

Requirements for product features such as "reparability" or "durability" suggest a large degree of arbitrariness. Thus the theoretical possibility that an electronics product can be repaired does not exclude the possibility that it is an economic or ecological write-off and therefore appropriate, for economic reasons or even ecological reasons, not to repair the product.

The cross-border nature of marine pollution caused by plastic waste, in principle, does require an internationally coordinated environmental policy as, otherwise, the individual countries do not have sufficient incentive to take full account of the environmental damage caused in their own sovereign territory. However, the treatment of waste in accordance with applicable EU legislation is already sufficient to prevent cross-border environmental damage, as far as possible. More extensive EU-wide requirements on waste management are not necessary.

### Impact on Growth and Employment

The Commission assumes that as a result of an increased level of recycling, employment in the recycling sector will rise. Since it leads to additional costs, however, a reduction in employment in other sectors is also expected. The overall effect cannot be reliably forecast.

### Impact on Europe as a Business Location

Not currently foreseeable.



## **Legal Assessment**

### Legislative competence

Unproblematic. The EU may issue measures for the protection of the environment against plastic waste based on its general competence in the field of environmental protection (Art. 192 (1) TFEU).

Subsidiarity

Not currently foreseeable.

Proportionality

Not currently foreseeable.

Compatibility with EU law

Not currently foreseeable.

Compatibility with German law

Not currently foreseeable.

#### Conclusion

The principal aim of waste management policy must be compliance with existing EU law in all Member States. The waste hierarchy of the Waste Framework Directive already obliges the Member States to regard the use of landfill only as a final resort for disposing of plastics. A general ban on landfill and the imposition of targets for recycling plastic waste is therefore misguided. The methods of complying with the waste hierarchy should be decided by the Member States. An EU-wide obligation for pay-as-you-throw schemes and deposit and return systems, as well as "obligatory charges" for plastic bags, are therefore misguided. Product design rules based on the Ecodesign Directive massively restrict the supplier's design possibilities and the consumer's freedom of choice; they cannot be justified on the basis of avoiding possibly incorrect waste disposal.