

COMPARATIVE ANALYSIS OF EUROPEAN AND DOMESTIC LEGISLATION ON PACKAGING AND PACKAGING WASTE

Analyzed legal acts:

- European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste;
- Directive (EU) 2015/720 of the European Parliament and of the Council of 29 April 2015 amending Directive 94/62/EC as regards reducing the consumption of lightweight plastic carrier bags;
- Law on waste management ("Official Journal Montenegro", No. 064/11 from 29.12.2011, 039/16 from 29.06.2016);
- Decree on method and procedure of establishment of the system for take over, collection and processing of waste packaging and the functioning of that system ("Official Journal Montenegro", No. 042/12 of 31.07.2012);
- Rulebook on packaging and packaging waste of the Republic of Croatia NN 116/2017;
- Article L. 541-10-5 of the Law on Environment of the Republic of France
- S.I. No. 605/2001 - Waste Management (Environmental Levy) (Plastic Bag) Regulations, 2001. Ireland

1. DEFINITION OF PACKAGING AND PACKAGING WASTE

European Parliament and Council Directive 94/62/EC on packaging and packaging waste defines packaging as: *„all products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer.“* Plastic bags falls into this definition, although the Directive does not contain specific measures on consumption of plastic bags.

The Law on waste management ("Official Journal Montenegro", No. 064/11 from 29.12.2011, 039/16 from 29.06.2016) does not transpose this definition in its integral form, and defines exclusively packaging waste (Article 3 paragraph 1 points 14 and 15 – *„commercial packaging waste“* and *„communal packaging waste“*) not dealing with packaging before it becomes waste.

Decree on method and procedure of establishment of the system for take over, collection and processing of waste packaging and the functioning of that system ("Official Journal Montenegro", No. 042/12 of 31.07.2012) in Article 3 paragraph 1 point 5 includes plastic bags in *„packaging which is not intended for packaging of goods: paper or plastic bags, including bags given to the consumer for wrapping the goods at sales point, plates and glasses for single use, bags for deep freezing, aluminum foils, etc.“*

RECOMMENDATION 1

In the new Law it is necessary to include definitions of plastic bags in accordance with definitions given in Article 1 (points 1b-1e) of the Directive (EU) 2015/720. It is also recommended to clearly define any exemptions to proposed restrictions in order to avoid problems in implementation.

ARTICLE 1 (POINTS 1B-1E) OF THE DIRECTIVE (EU) 2015/720

„1b. **“plastic carrier bags”** shall mean carrier bags, with or without handle, made of plastic, which are supplied to consumers at the point of sale of goods or products;

1c. **“lightweight plastic carrier bags”** shall mean plastic carrier bags with a wall thickness below 50 microns;

1d. **“very lightweight plastic carrier bags”** shall mean plastic carrier bags with a wall thickness below 15 microns which are required for hygiene purposes or provided as primary packaging for loose food when this helps to prevent food wastage;

1e. **“oxo-degradable plastic carrier bags”** shall mean plastic carrier bags made of plastic materials that include additives which catalyse the fragmentation of the plastic material into micro-fragments;“

PRO ET CONTRA:

PRO: It is of outmost importance to define clearly types of plastic bags which are the subject of restrictions and describe in details any exemptions, and to ensure clarity on the restrictions in the mind of consumers. Moreover, EU insists on transposition of directives in national legislations of Member States and candidate countries, where especially definitions are considered in evaluation of correct transposition. Legislation of certain Member States can serve as a model for further explanation of restrictions and exemptions.

EXAMPLE – ARTICLE 5 S.I. NO. 605/2001 - WASTE MANAGEMENT REGULATIONS, 2001, IRELAND

Ireland went a step ahead from EU legislation, describing in its national legislation exemptions related to plastic bags intended for different purposes:

„The following classes of plastic bags are excepted from the definition of a plastic bag:

- (a) plastic bags solely used to contain-
 - (i) fresh fish and fresh fish products,
 - (ii) fresh meat and fresh meat products, or
 - (iii) fresh poultry and fresh poultry products

provided that such bags are not greater in dimension than 225mm in width (exclusive of any gussets), by 345mm in depth (inclusive of any gussets), by 450mm in length, (inclusive of any handles);

- (b) plastic bags solely used to contain the products referred to in paragraph (a) where such products are contained in packaging, (including a bag), provided that such plastic bags are not greater in dimension than the dimensions referred to in paragraph (a);

- (c) plastic bags solely used to contain-
 - (i) fruit, nuts or vegetables,
 - (ii) confectionery,
 - (iii) dairy products,
 - (iv) cooked food, whether cold or hot, or
 - (v) ice

provided that such products are not otherwise contained in packaging and where such bags are not greater in dimension than the dimensions referred to in paragraph (a);

- (d) plastic bags used to contain goods or products sold:

- (i) on board a ship or aircraft used for carrying passengers for reward, or
- (ii) in an area of a port or airport to which intending passengers are denied access unless in possession of a valid ticket or boarding card, for the purposes of carrying the goods on board the ship or aircraft referred to in subparagraph (i);
- (e) plastic bags designed for re-use, which are used to contain goods or products and which are sold to customers for a sum of not less than 70 cent each.“

Although there is very detailed delineation of types of plastic bags which are the subject of restrictions and those which are exempted according to the Irish legislation, it could be highlighted that restrictions could be applied on many exempted items such as packaging for fresh fish and meat, fruits, nuts and vegetables, dairy products, etc., which could be replaced by paper bags, cardboard boxes and similar solutions.

In Morocco, since 2016 it was prohibited the manufacture, import, export, sale and use of plastic bags. It applies to all plastic bags except those for agricultural and industrial sectors as well as household waste collection. Isothermal bags and those intended for refrigeration and freezing were also exempt. This example was followed by Kenya and many more countries.

CONTRA: Dividing plastic bags to „lightweight“ and „very lightweight“ for purpose of giving them different treatment can result in switching the production patterns and development of black market, which can lead to an increase instead of reduction of plastic waste.

In Portugal, lightweight plastic carrier bags (with a wall thickness below 50 microns) have been banned. Supermarkets found a work around and are selling thicker plastic bags (non biodegradable) 10 cents each. Hence, plastic bags are still around, and small shops still use them despite the ban. Proposed solution for Portugese examnple is to extend the ban to ALL plastic bags, whatever their thickness is.

2. PREVENTION OF GENERATION OF PLASTIC WASTE

In accordance with the Article 2 of the Decree on method and procedure of establishment of the system for take over, collection and processing of waste packaging and the functioning of that system ("Official Journal Montenegro", No. 042/12 of 31.07.2012), this Decree is applied „to packaging **which is placed on market** and waste packaging“, but, in fact Decree is exclusively dealing with the packaging waste, not taking into account the whole life-cycle of these products since their production to the moment they become waste.

RECOMMENDATION 2

In provisions related to prevention of waste generation it should take into account measures for reduction of consumption of plastic bags, defined as legally binding provisions and not only as a part of State plan on waste management.

For example, it could be obligation for those who provide plastic bags (with charge) to consumers at the sales point to have banners recommending economical consumption and re-use as well as to encourage use of bags made of fabric or other durable materials. It can be also complemented with these messages written directly on the bags, followed with facts on the harmful effects of plastic bags.

*EXAMPLE - ARTICLE 14A OF THE RULEBOOK ON AMMENDMENTS OF THE RULEBOOK ON
PACKAGING AND PACKAGING WASTE OF THE REPUBLIC OF CROATIA:*

»Reduction of consumption of plastic carrier bags

Article 14.a

- (1) Seller shall charge the consumer for all light weight carrier bags at the sales point of goods or products.
- (2) Seller shall, at points where very light weight carrier bags are given for free put visible information for consumers on economic and rational use of these bags with words »USE THESE BAGS RATIONALLY«.

PRO ET CONTRA:

PRO: Principle of waste management hierarchy gives an absolute priority to waste prevention. Apart from strategies to promote public awareness of waste prevention and reducing the generation of specific types of waste, it is necessary to legally regulate and enforce waste prevention.

CONTRA: Appealing to citizens which awareness is not yet at high level regarding negative impacts of plastic waste might be unproductive since it relies on voluntary action of individuals and can only help to slowly increase their awareness. Hence, stronger legally binding instruments should be employed in order to achieve expected results in reducing plastic waste.

3. ANALYSIS OF OPTIONS PROPOSED BY DIRECTIVE (EU) 2015/720 AND OTHER OPTIONS USED BY EU MEMBER STATES

Measures proposed by Directive (EU) 2015/720 are limited to the following:

- reduction of consumption of plastic bags on 90 pcs per person per year by 2019; and
- reduction of consumption of plastic bags on 40 pcs per person per year by 2025. or
- ban of distribution of plastic bags free of charge at sales points by the end of 2018.

There is also opportunity to restrict advertising on plastic bags under condition that these restrictions are proportional and non-discriminatory.

However, certain Member States opt for more stringent measures in order to achieve objectives of the Directive.

1. OPTION OF REDUCTION OF CONSUMPTION OF PLASTIC BAGS

EU currently consumes up to 200 bags per person, every year. Only about 7 % are recycled. Billions end up as litter across Europe, especially in rivers, trees, beaches and in the sea. This has serious environmental, health and economic effects due to many reasons: pollution, entering of microplastic into food chain and spreading from marine ecosystems which are the most vulnerable to terrestrial ecosystems and ending up in human food, costs of cleaning the nature, etc.

The European Commission is developing a common methodology for calculating how many lightweight bags are consumed per year. EU Member States must report annual consumption figures to the Commission as of 27 May 2018.

For example, in 2010, 95.5 billion plastic bags (1.42 million ton) were brought on the market in the EU, most of which (92%) were single-use bags. On average a plastic bag is used for only 12 minutes and each one takes between 400 and a 1000 years to break down¹.

According to ZWMNE rough estimation, each citizen of Montenegro uses up to 600 plastic bags a year.

PRO ET CONTRA

PRO: Measures to reduce consumption of plastic bags to 40 pcs per person per year by 2025 is a measurable action and results are easily presentable.

CONTRA: The measure is not ambitious enough. There is still no common methodology for calculation of how many plastic bags are consumed per year. There is no data on plastic bags consumption in Montenegro. There is no further guidance in the Directive (EU) 2015/720 on how to achieve these reductions. Also, if only lightweight bags are taken into account, as explained above on the example of Portugal, there could be an increase of use of thicker plastic bags which does not solve the problem of non-biodegradable plastic waste.

2. OPTION OF BAN OF DISTRIBUTION OF PLASTIC BAGS FREE OF CHARGE

In many EU countries plastic bags are no longer available at grocery stores for free. Some Member States, such as Denmark, Finland and Luxembourg, have already achieved great results. In Ireland, for example, since the introduction of the levy in 2002, the consumption of single-use plastic bags has decreased from 328 per person per year to just 18 – a reduction of nearly 95 %. The UK and the Netherlands have also brought in charges on bags. While in UK the charge is 5 pennies, in Netherlands shopkeepers are free to fix the price they charge, the recommended price for a plastic bag is 25 cents. Market vendors in Netherlands charge an average of 6.9 cents per plastic bag. Department stores and small businesses charge around 10 cents per bag. In exceptional cases a plastic bag can cost up to 29 cents.

Despite the lack of support and economic incentives, packaging-free shops have grown exponentially in recent years (there are over 500 such shops in Europe) and have been a net job creator even during the recession².

PRO ET CONTRA

PRO: In Ireland the price of 15 cents per bag had a reduction effect.

¹ <https://www.greenpeace.org/new-zealand/press-release/greenpeace-launches-campaign-to-ban-single-use-plastic-bags-in-nz/>

² More details available at: <https://bepakt.com/>

CONTRA: The example of UK where charge is 5 pennies showed that shoppers no longer care about the 5p fee to use a plastic bag, and use of the plastic bags showing signs of increasing again after the introduction of charge in July 2016. The proposed solution in UK is to drastically increase the charge to 1 £. In Montenegro consumers are also charged for plastic bags – the charge is 3-5 cents. It is obvious that symbolic prices of plastic bags are not changing the consumers habits. In Montenegro it would mean a *status quo*, with no action for reduction of use of plastic bags.

3. Option to restrict advertising on plastic bags

This measure is an additional measure to other restrictive measures. The EU Directive insists that these restrictions are proportional and non-discriminatory.

PRO ET CONTRA

PRO: Advertising materials are normally distributed for free. Plastic bags are an exemption, where the consumer pays for advertising material. There is a common practice in supermarkets in Montenegro to supply each consumer with bags which are not necessary. Hence, the consumer pays for un-necessary goods, contributes more to the pollution of environment and pays for advertisement material provided by large supermarkets. The measure can help supermarkets to reduce their benefits of distribution of too many bags.

EU Directive, with perspective of adopting an implementing act requires labels or marks to ensure Union-wide recognition of biodegradable and compostable plastic carrier bags and to provide consumers with the correct information about the composting properties of such bags. In order to make that information visible it should not be adversely affected by an advertisement on the bag.

CONTRA: It could be considered as a right for shops to use the bags they provide to their clients to advertise on them. By taking that right away, it might be more difficult to get the large supermarket chains onboard for a bag restriction.

4. OPTION OF BAN OF CERTAIN TYPES OF PLASTIC BAGS

1. Lightweight plastic bags

Directive (EU) 2015/720 introduces the term „littering“ which is characteristic for plastic bags, which due to their light weight, under the impact of wind often end up in environment (on branches of trees, in water bodies). Apart from visual distortion of environment, littering of plastic bags leads to environment pollution and worsening the widespread problem of waste in water bodies which endangers water ecosystems throughout the world. Micro plastic is entering the food chain, and causes cases of animals on land or sea suffocated or entangled in plastic bags.



In recitals of the Directive (EU) 2015/720 it is stated that: „ Current recycling rates of lightweight plastic carrier bags are very low and, due to a number of practical and economic difficulties, are not likely to reach significant levels in the near future.”

PRO ET CONTRA

PRO: Thicker bags are re-usable and most people use their plastic shopping bags as garbage bags. So if they are all replaced by EU approved compostable bags it should be good if they are properly useable as garbage bags or that there is a sustainable alternative offered.

CONTRA: International practices analyses so far showed that ban should be extended to all plastic bags, whatever their thickness is, because the production can be easily switched to bags which are just above the proposed limit of 50 microns and continue with „business as usual“ not violating the law, but not contributing to reduction of plastic waste at all. It also means that we will use more plastic material for garbage bags (they will only be reused once as garbage bags).

About microplastic pollution in European strategy on plastic in circular economy: «New sources of plastic leakage are also on the rise, posing additional potential threats to both the environment and human health. Microplastics, tiny fragments of plastic below 5mm in size, accumulate in the sea, where their small size makes it easy for marine life to ingest them. They can also enter the food chain. Recent studies also found microplastics in the air, drinking water and foods like salt or honey, with yet unknown impacts on human health. In total, it is estimated that between 75 000 and 300 000 tonnes of microplastics are released into the environment each year in the EU. 15 While a large amount of microplastics result from the fragmentation of larger pieces of plastic waste, significant quantities also enter the environment directly, making it more challenging to track and prevent them».

2. „Oxo-biodegradable“ or „oxo-degradable“ plastic bags

Some plastic bags are marked as „oxo-biodegradable“ or „oxo-degradable“ by their producers. In such bags, additives are incorporated into conventional plastics. Due to the presence of those additives, the plastic fragments over time into small particles which remain in the environment. It can thus be misleading to refer to such bags as ‘biodegradable’ as they may not be a solution to littering and may, on the contrary, increase pollution. The Commission examined the impact of the use of oxo-degradable plastic carrier bags on the environment and presented a report to the European Parliament and the Council³.

In the conclusions of this report it is stated that a wide range of scientists, international and governmental institutions, testing laboratories, trade associations of plastics manufacturers, recyclers and other experts have therefore come to the conclusion that oxo-degradable plastics are not a solution for the environment and that oxo-degradable plastic is not suited for long-term use, recycling or composting. Claims presenting oxo-degradable plastic as an "oxo-biodegradable" solution to littering which has no negative impact on the environment, in particular by not leaving any fragments of plastic or toxic residues behind, are not substantiated by evidence. In the absence of conclusive evidence of a beneficial effect on the environment and indeed indications to the contrary, in the context of the European plastics strategy process to restrict the use of oxo-plastics in the EU is started.

In accordance with “A European Strategy for Plastics in a Circular Economy: “... some alternative materials claiming biodegradability properties, such as 'oxo-degradable plastics', have been found to offer no proven environmental advantage over conventional plastics, while their rapid fragmentation into microplastics cause concerns. Therefore, the Commission has started work with the intention to restrict the use of oxo-plastics in the EU.”⁴

RECOMMENDATION 4

Taking into account the above explained scientific understanding, „oxo-biodegradable“ and „oxo-degradable“ plastic bags should be banned.

EXAMPLE - ARTICLE L. 541-10-5 OF THE LAW ON ENVIRONMENT OF THE FRENCH REPUBLIC:

„II.-The production, distribution, sale, provision and use of packaging or bags manufactured, in whole or in part, from oxo-fragmentable plastic are prohibited. An oxo-fragmentable plastic is degradable but not assimilable by microorganisms and not compostable in accordance with the standards applicable for the organic recovery of plastics.“

PRO ET CONTRA

³ Summary available at: <http://zerowastemontenegro.me/biodegradable-plastic-bags>

⁴ In line with REACH procedures for restricting substances that pose a risk to the environment or health, the Commission has requested the European Chemicals Agency to review the scientific basis for taking regulatory action at EU level

PRO: Banning oxo degradable material in the making of all types of bags will ensure a reduction of pollution. It will not confuse the consumers as it will be transparent to them, only the retailers will have to be well informed.

CONTRA: There is no argument in favor of oxo degradable material.

3. Biodegradable and compostable plastic bags

In recitals of the Directive (EU) 2015/720 it is stated that European standard EN 13432 on 'Requirements for packaging recoverable through composting and biodegradation — Test scheme and evaluation criteria for the final acceptance of packaging' sets out the characteristics that a material must possess to be considered 'compostable', namely that it can be recycled through a process of organic recovery comprised of composting and anaerobic digestion.

The Commission should ask the European Committee for Standardization to develop a separate standard for home-compostable packaging. Moreover, In the Article 8a of this Directive it is stated that: *By 27 May 2017, the Commission shall adopt an implementing act laying down the specifications of labels or marks to ensure Union-wide recognition of biodegradable and compostable plastic carrier bags and to provide consumers with the correct information about the composting properties of such bags. That implementing act shall be adopted in accordance with the regulatory procedure referred to in Article 21(2). 18 months after the adoption of that implementing act, at the latest, Member States shall ensure that biodegradable and compostable plastic carrier bags are labelled in accordance with the specifications provided for in that implementing act.'*

So far, this implementation act is not adopted yet.

RECOMMENDATION 5

In order to overcome the need to use plastic bags and in parallel to protect the environment, it is possible to allow only biodegradable and compostable plastic bags.

The first EU Member State which applied the complete ban of plastic bags was Italy, exempting only bags complying with standard EN 13432 on compostability. At first, the sanctioning system was blocked by the EU Commission in order to examine the risks related to the free market principles. Since August 2014, the sanctioning system is fully operational - and the final green light came from the EU with Directive 2015/720. Sanctions are strict, ranging from 2.500 to 100.000 €.

EXAMPLE - ARTICLE L. 541-10-5 OF THE LAW ON ENVIRONMENT OF THE FRENCH REPUBLIC

" II. Is terminated for a fee or for free, the provision of:

"1. As of 1 January 2016, single-use plastic carrier bags for the packing of goods at the point of sale;

"2. As of 1 January 2017, single-use plastic bags intended for the packing of goods at the point of sale other than carrier bags, except for compostable bags for domestic composting and consisting of, fully or partially of bio-based materials.

"A decree* in Council of State determines the conditions of application of this paragraph II. It sets in particular, the minimum bio-based content of single-use plastic bags mentioned in 2 ° and the conditions

under which it is progressively increased. It also lays down the methods for informing the consumer of the composition and use of the bags sold or made available to him/her. "

INFORMATION ABOUT STANDARD EN 13432

EU harmonized standard for compostable and biodegradable packaging - EN 13432:2000 – “Packaging: requirements for packaging recoverable through composting and biodegradation”

The key component of the EN 13432 standard is the need to recover packaging waste on the basis of industrial composting. The standard defines both the test programme and the assessment criteria compostable packaging has to meet. As the EN 13432 standard is harmonised, all packaging that is consistent with this standard is automatically in keeping with the requirements of the packaging Directive in terms of post-use recovery. The requirements of the EN 13432 standard are included in the OK compost verification mark certification programme without any additions or omissions. The requirements are assessed as part of the original certification but continue to be monitored on the market by a competent third party.

The key requirements are:

- Chemical composition: the standard sets limits for volatile matter, heavy metals (Cu, Zn, Ni, Cd, Pb, Hg, Cr, Mo, Se, As) and fluorine
- Biodegradation : chemical breakdown of materials into CO₂, water and minerals. Pursuant to the standard at least 90% of the materials have to be broken down by biological action within 6 months.
- Disintegration : the physical decomposition of a product into tiny pieces. After 12 weeks at least 90% of the product should be able to pass through a 2 x 2 mm mesh.
- Quality of the final compost and ecotoxicity: the quality of the compost should not decline as a result of the added packaging material. The standard specifies checking this via ecotoxicity tests: this involves making an examination to see if the germination and biomass production of plants are not adversely affected by the influence of composted packaging.

RECOMMENDATION 5

It is recommended that the new Law on waste management should provide for a legal basis for a secondary act to transpose the above mentioned EU implementation act, once adopted, in order to insure recognition of biodegradable and compostable plastic carrier bags in accordance with best EU practice.

PRO ET CONTRA

PRO:

In combination with bags usage reduction (see recommendations above), use of compostable material for the making of plastic carrier bags will drastically limit pollution from bags still leaking in the environment after the decree is passed.

According to the European strategy on plastic in circular economy: „ ... the increasing market shares of plastics with biodegradable properties bring new opportunities as well as risks. In the absence of clear labelling or marking for consumers, and without adequate waste collection and treatment, it could aggravate



plastics leakage and create problems for mechanical recycling. On the other hand, biodegradable plastics can certainly have a role in some applications and the innovation efforts in this field are welcomed.”

Establishing a clear regulatory framework for plastics with biodegradable properties

In response to the high level of plastic leakage into our environment and its harmful effects, solutions have been sought to design biodegradable and compostable plastics. Targeted applications, such as using compostable plastic bags to collect organic waste separately, have shown positive results; and standards exist or are being developed for specific applications.

However, most currently available plastics labelled as biodegradable generally degrade under specific conditions which may not always be easy to find in the natural environment, and can thus still cause harm to ecosystems. Biodegradation in the marine environment is particularly challenging. In addition, plastics that are labelled 'compostable' are not necessarily suitable for home composting...”

CONTRA: This type of material is more costly and will mean more burden on consumers (for those who do not change their behavior towards use of plastic bags) and retailers of bags.