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A Life Made of Plastic Bottles

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Key points

This policy brief analyses the consequences of the excessive consumption of plastic bottles in the city of Athens and proposes recommendations for the confrontation of this phenomenon. Plastic bottles' consumption can affect sectors such as the environment, public health and the economic situation of the country. Specifically in Greece, the majority of plastic waste goes to landfills, only a very low percentage is recycled. In 2014, Greece had to pay a 10 million fine for illegal landfills. The incineration of plastics causes CO₂ emissions and the plastic bottles are one of the main sources of marine pollution in the Mediterranean Sea. Additionally, the use of plastic bottles in Athens can threaten the maintenance of the monuments and archeological sites. This policy brief suggests,

- The construction of drinking fountains in public spaces in Athens
- The increase of bottled waters' price caps
- Product design measures, such as the use of tethered caps instead of regular ones.
- Construction of proper facilities, so as to carry through with the proper recycling of plastic bottles. Brands will be more willing to reuse recycled plastic bottles which are high-quality.

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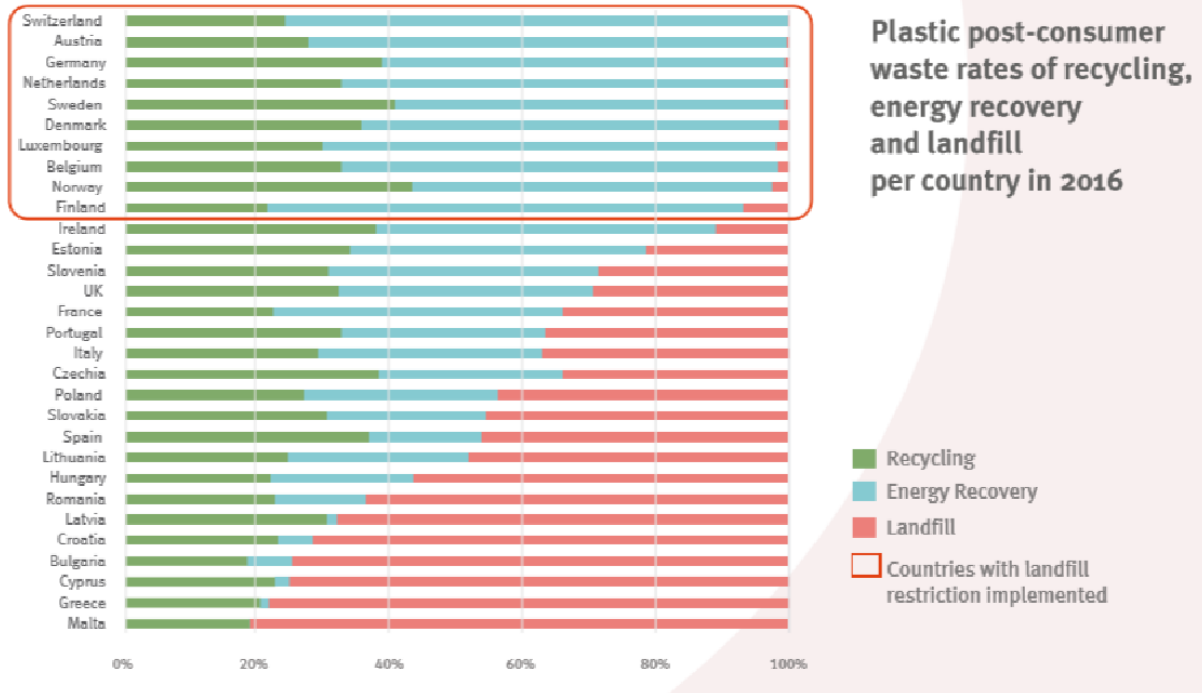


Introduction

During the 20th and 21st century, our way of life has led us to vicious circle, where the need of overconsumption of goods, increases every day causing serious problems not only on the economy but on the natural environment as well. Particularly, the Responsible Production and Consumption is one of the Sustainable Development Goals of the United Nations to be achieved by 2030¹. Climate change and the regulation of the consumption of goods is on the top of the agenda of the world community. The Paris Agreement is a landmark agreement, concerning the reduction of greenhouse gas emissions. Furthermore, concerning the European Continent, the European Union has adopted a Strategy for Plastics in Circular Economy. The Single Use Plastics have had throughout the years serious impacts on the environment, especially in high populated areas. Exceptionally, the habit of consumption of plastic bottles is a serious threat which countries have to deal with. Concerning the sector of the environment, the EU has a shared competence and therefore, the Member States can act only if the EU has chosen not to².

Unfortunately, Greece and especially the municipality of Athens has to face the pollution which is caused by the uncontrollable production, consumption and throwing of plastic bottles. This specific phenomenon affects not only the configuration of the image and the environment of Athens, but can have serious consequences in crucial parts of the national economy which has been plagued over the past ten years. Moreover, it jeopardizes the health of the citizens of the Greek capital and not only, who have to confront with health issues, caused by the environmental pollution. Plastic bottles are used every day by millions of people only in the Attica basin. The results of this behavior are already visible, however the necessary measures have not been taken yet.

In 2016 the production of plastics in Europe was increased by 2 million tones, reaching 60 million tones in a year and 39% of the production was used for packaging³. However, the total European situation concerning the recycling of plastics has ameliorated as, in the same year for the first time, recycling overcame landfill. Nevertheless, Greece is one of the EU Members where the majority of the plastics waste goes to the landfills⁴. Meanwhile the Greek municipal waste has also increased between 2005 and 2016 in contrary with the total EU results⁵.



The costs are not only ecological but economic too. According to the Judgement of the European Court of Justice in the 2nd of December 2014, in Case C-378/13, Greece was penalized for not complying with a 2005 judgment concerning the Waste Directive. Particularly, Greece had failed to fulfill the closure of all the illegal landfills and create the essential facilities for the proper waste management. As a result, our country had to pay a 10 million fine and in case there was not a full compliance with the 2005 judgment, the amount would rise up to 14 million euros contingent upon the delay of the payment⁶. If the essential measures had been taken on time, Greece would have invested this amount of money in the construction of the appropriate landfills.

Moreover, the incineration of plastics has as a result the emission of chemical substances such as CO₂. It is estimated that 400 million tones of CO₂ are the result of the incineration of plastic waste globally⁷. Therefore, the chemical substances produced by the burning of plastics can worsen the current situation.

Furthermore, plastics are one of the main causes of sea pollution. Particularly, in European Seas 49% of marine litter are Single Use Plastics⁸. In the Mediterranean Sea 13% of total items found, are plastic bottles⁹. According to Article 191 Paragraph 1 of the Treaty for the Functioning of the European Union, each EU Member State shall contribute to the promoting of the confrontation of the environmental problems in international level. However, Greece is one of the Member States with the lowest percentage of recycling plastic packaging¹⁰.



Also, Greece is a country where tourism is a main source of earnings, contributing around 20% of the nation's GDP. Thus, sea pollution can be a threat to the national economy, as the majority of the tourists select to visit coastal areas. Concerning the municipality of the Greek capital, in 2017, almost half a million tourists visited the Acropolis and one million the Acropolis Museum¹¹. Therefore, this population, who selects to visit Greece during the summer season, is able to consume a huge amount of bottle water. Thence, the consumption of plastic bottles increases the possibilities of the pollution of the area of Athens and especially the archeological sites.

An immediate action needs to be taken. Already, the European Union, since the beginning of 2018, has made crucial decisions after the adoption of a European Plastics Strategy. The main plans of this particular strategy are the reduction of Single Use Plastics, the restriction of microplastics and that all packaging which is made by plastic materials in the European market, will be recyclable by 2030. In May 2018, there was a proposal for a directive concerning the consumption of SUP, which was finally approved by the European Parliament and the Council of the European Union in December 21, 2018. In accordance to this directive, the measures which are provided for, regarding the beverage bottles, are the proper design of the product, the responsibility of the producer, the separate collection objective and the raising of social awareness¹². A directive is a legislative act, with the purpose of an achievement of a goal setted out by the EU. However, each Member State has to implement a directive by concocting its own laws¹³. As a result, Greece has to decide which the appropriate measures to be enforced are.

Recommendations

The construction of water and drinking fountains in Athens would reduce the consumption of bottled water. In particular, citizens will be able to reuse the plastic bottles, which they have already purchased, or their own reusable drinking bottles. In any case, access to water is a human right. In 2012 the European Commission welcomed the European Citizen's Initiative "Water is a public good, not a commodity"¹⁴. In Athens people who are in public spaces are obliged to buy bottled water, as there are a few fountains only in the suburban areas of Attica. Therefore, the existence of drinking fountains not only confronts the problem of plastic consumption, but is an obligation of the Greek authorities, as access to water is a right, not a privilege.

Moreover, the increase of plastic bottles' and even bottled waters' price caps could be applicable and efficient, as it would discourage the consumers from buying them. A similar measure, the charge of plastic bags¹⁵ was also implied. However, free access to water is required for the application of this particular measure, otherwise public will oppose this rise of the prices.



Furthermore, product design measures could be applied. For example, the use of tethered caps is a solution for the reduction of plastic caps, which are also a source of litter. The product should have the appropriate design, in order to be recycled and compressed more easily¹⁶.

In November 2018, Athens was awarded as the European Capital of Innovation by the European Commission¹⁷, winning the prize of 1 million euros. As a result, the Greek capital is capable of encouraging ideas which will improve the quality of life of the citizens. Thus, by taking advantage of the European Project “Horizon 2020”, Greece could encourage the building of recycling facilities, which will be able to use new technologies, making this way the recycling of plastic bottles more efficient and easier. This decision could not only create new jobs, but will make the recycled plastic bottles more reliable for enterprises in order to be reused and launched to the markets. The high quality of recycled materials could be the solution of the massive production of new plastic bottles.



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