

Environment pollution from plastic The effects of plastic on

our planet

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A supplied competition

A running competition which decided to become greener in 2019



*1000
years to dispose of a plastic bottle

2150
marine species in contact with plastic

*1000
liters of tap water
cost as much as a liter
in a bottle

14.000.000 tons of microplastics on the ocean floor

[8.000.000]

tons of plastic poured into the oceans every year

01 Environment pollution from plastic

Reducing waste in the environment is essential if you want to preserve the life of ecosystems and reduce pollution.

- The pollution caused by plastic consists in the dispersion and accumulation of plastics in the environment, which causes problems with the habitat of wildlife, as well as the human one. This type of pollution can affect the air, soil, rivers, lakes and oceans
- This type of pollution is most evident in the developing nations of Asia and Africa, where waste collection systems are often inefficient or non-existent. But even the developed world, in particular countries with low recycling rates, are having problems in correct plastic disposal
- Today disposable plastics make up 40% of all those produced every year and half of all the plastic produced has only been made in the last 15 years. The microplastics, produced by the deterioration of the products, enter the food chain and poison the food we eat



Every day, thousands of sea turtles, birds and other oceandwelling animals choke on plastic bags or get trapped by abandoned fishing gear



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021

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Legislative Decree 196/2021

- Art .1 Objectives

 Prevent and reduce the impact of certain plastic products on the environment and on human health, as well as to promote the transition to a circular economy with innovative and sustainable business models, products and materials
- Art. 2 Scope This Directive shall prevail if it conflicts with Directive 94/62/EC or 2008/98/EC
- Art. 4 Consumption reduction
 Member States shall take the necessary measures to
 achieve an ambitious and sustained reduction in the
 consumption of the single-use plastic products in line
 with the overall objectives of the Union's waste policy by
 2026. They also shall monitor the single-use plastic
 products placed on the market, the reduction
 measures taken and shall report the progress made to
 the Commission



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- Art. 3 Definitions
- Plastic = material consisting of a polymer to which additives or other substances may have been added
- Single-use plastic product = product that is made wholly or partly from plastic and that is not designed or placed on the market for being returned or re-used for the same purpose
- Oxo-degradable plastic = plastic materials that through oxidation, lead to the fragmentation into micro-fragments
- Fishing gear = any item or piece of equipment used in fishing or aquaculture to target, capture or rear marine biological resources
- Waste = any substance or object which the holder discards
- Waste management = collection, transport, recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites



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- Art . 6 Product requirements
 Metal caps or lids with plastic seals shall not be made of plastic, from 2025 beverage bottles should contain at least 25 % of recycled plastic and from 2030 at least 30%
- Art. 7 Marking requirements
 Member States shall ensure that each single-use plastic product placed on the market bears a conspicuous, clearly legible and indelible marking on its packaging informing consumers of appropriate waste management options or waste disposal means to be avoided and the presence of plastics in the product
- Art. 9 Separate Collection Member States shall take the necessary measures to ensure the separate collection by 2025 of an amount of waste single-use plastic products to 77% in a year and by 2029 to 90%





Data relating to the use of disposable plastic objects before the act was introduced

How much plastic was used in our country

D3 Data relating to the use of disposable plastic objects before the act was introduced

Before the introduction of the law, disposable plastic objects accounted for 40% of the production and 61% of all plastic waste in Europe, that alone accounted for 70% of plastic waste at sea

- Cutlery, dishes, cotton sticks (banned in Italy from January 1st 2019 and permitted only in biodegradable and compostable material), straws, mixers for drinks, rods for balloons, containers for food and beverages in expanded polystyrene (in particular those used for fast food), bags and packaging are usually wrongly disposed
- According to the association Marevivo, between 16 and 20 million disposable glasses were consumed every day in Italy and up to 2 billion per year of plastic straws, with a very high dispersion in the environment
- Before 2011, when Italy banned plastic shopping bags, between 20 and 25 billion plastic bags were used every year
- According to WWF, Italy ranks first in Europe for the use of bottled water: every day 32 million bottles of mineral water are used and about 7 billion are not recycled and are likely to be dispersed in the environment



In Italy the annual consumption of plastic tableware was 115 thousand tons per year

Data relating to the use of disposable plastic objects before the act was introduced

An example of consumption of disposable plastic during sport events



- "Maratona Alzheimer" is a marathon dedicated to Alzheimer's disease. About 6,000 people take part every year in this special marathon which represents a key moment in order to spread awareness among the community and to gather funds for "Fondo Alzheimer 360°", committed to assistance, prevention and research against Alzheimer's disease.
- During this event about 40 thousand glasses, 5,000 bottles and 2,500 disposable plastic cutlery were normally used
- The project was called "Corripulito" and was promoted by Romagna Iniziative, which has the support of the University of Bologna.





- Through Art. 5 of Legislative Decree 196/2021, starting from January 14th 2022 a ban was introduced on placing single-use plastic products for consumption unless made of biodegradable and compostable materials
- According to an international Ipsos survey, 90% of people agreed to stop using these products to reduce plastic pollution. In Italy, the consensus for European measures reaches 94%.
- Violations of the obligations are affected with a pecuniary administrative sanction from 2500 € to 25.000 €
- An agreement was drawn up in the Lombardy Region between the Council and the companies of the Water Alliance group to reduce the dispersion of plastic bottles in the environment, favour the use of public water and promote environmental education through appropriate shared awareness campaigns



1 Data relating to the impact of the law in Italy

During sporting events, significant quantities of waste are produced, in consideration of the recurring practice of distributing plastic containers, at refreshment points or dedicated stations, intended for athletes or participants



- Thanks to this protocol and the involvement of institutions, all actions aimed at preventing and countering the worrying increase in pollution generated by plastic containers were implemented
- With the help of this law a sort of 'Acqua Eco Sport' Logo was defined and can be granted to sporting events, guaranteeing the sustainable nature of the event itself
- On one hand it increases the culture of respect for water, through the involvement of citizens, and on the other, it implements concrete actions and reduces the production of waste, involving the world of sport as a natural testimonial of healthy values



«MINCIOMARCIA» an example of plastic free event

A running competition which decided to become greener in 2019



After the two years' stop due to the Covid-19 pandemic, Minciomarcia was back on track

- The event was conceived in 1972 and this year, the 47th edition of the non-competitive walk through the streets of the center of Mantua took place on Saturday May 28th 2022
- It has become a traditional competition and a moment of gathering together for people of all ages who run or walk for 5 or 10 Km through the centre of the town, arriving at Piazza Sordello (the main square) where refreshments are provided for everyone. Being non-competitive, there is no final ranking



Students and Teachers of our Institute who joined the event

05 «MINCIOMARCIA»

In 2019 Mantua was declared "European City of Sport" and hosted hundreds of sport initiatives.

Minciomarcia was to become the most attended one



- The organizers of Minciomarcia decided to support the plastic free politics of the Municipality by eliminating as much disposable plastic objects as possible: food and drink containers offered to participants at the end of the marathon were completely recyclable and they were disposed of in specific bins for organic waste
- Making big sport events plastic free is essential because it helps reduce their impact on our environment, considering the large amounts of drinks and packaged food being consumed during such events





Environment pollution from plastic

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Data relating to the impact of the law in Italy

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«MINCIOMARCIA» an example of plastic free event

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