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## IKV BRIEF

# THE FUTURE OF SINGLE-USE PLASTICS IN TURKEY AND THE EU

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*Plastics have become an integral part of our lives and economic sectors in the last few decades, due to the attractive attributes they have such as durability and inexpensiveness. They are currently used in several sectors from packaging to construction, and electronics to transportation. While they offer convenience and hygiene in several fields, they also pose a threat to the environment and human health.*

*To cope with the plastic pollution in the environment, most global actors have introduced more stringent policies and economic instruments. The EU has also introduced and implemented highly ambitious policy instruments in the last decade and continues to give weight to waste management within the context of the European Green Deal.*

*As an EU accession country and as the biggest contributor to plastic waste pollution in the Mediterranean Sea, Turkey has also started to introduce and implement some economic and policy instruments in the recent years, which succeeded at reducing plastic waste generation to some degree. However, Turkey's legislation on waste management is "partially aligned" with the EU acquis and it is under the risk of becoming a "waste dump" on the behalf of major plastic waste exporter countries.*

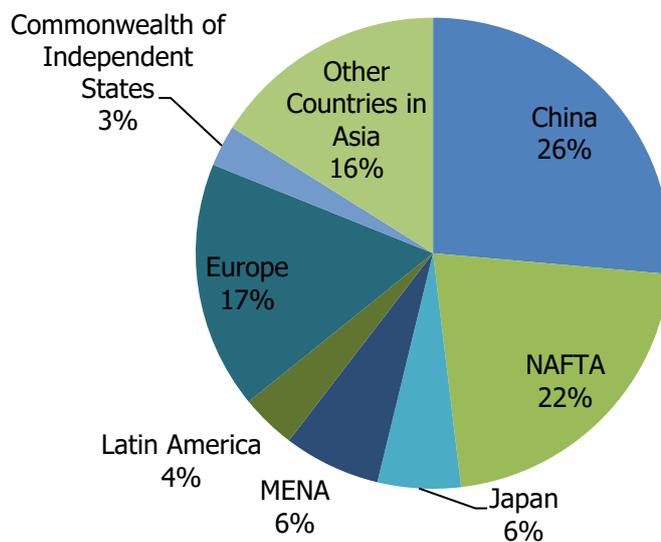
*This policy brief aims to assess the EU and Turkey's plastic waste policies and the impacts of the Basel Convention amendments on the EU and Turkey.*



# THE FUTURE OF SINGLE-USE PLASTICS IN TURKEY AND THE EU

Over the decades, plastics have become an inseparable and integral part of many economic sectors and, most importantly, they have transformed our daily lives. Plastics are currently used in several sectors from packaging to construction, and electronics to transportation. What makes a plastic attractive is that it is made of cheap materials, lightweight, durable, and easy to manufacture.

Graph 1: Global plastic production rate in 2015



Source: PlasticsEurope

The rising world population and national wealth along with changing consumption patterns increases the tendency to produce and consume more single-use plastics. As seen in Graph 1, Asia, led by China, realises more than half of the plastic production. While plastic production rates are falling in NAFTA, Europe, and Latin America; they are increasing in China and other Asian countries, and in the MENA region. While other regions have lost their global production share, China has become the largest producer of plastics.

It is estimated that there will be 12 billion tonnes of plastic litter in landfills and the environment by 2050.<sup>1</sup> With the increasing production and failure in waste management in a global scale, it gets more and more difficult to cope with enormous volumes of plastic lying around in the nature. According to a UNEP report, only 9% of the plastic waste ever produced has been recycled, while 79% are now in landfills, dumps or in the

<sup>1</sup> Ibid

environment and 12% has been incinerated.<sup>2</sup> These unmanageable plastics, on the other hand, have negative impacts on the environment, climate change and, human and animal health.

#### - **The Impacts of Plastics on the Environment**

Some studies indicate that plastic bags and Styrofoam containers can stay in the environment without decomposing for thousands of years.<sup>3</sup> Accordingly, most plastics slowly break down into small fragments known as “microplastics”. Microplastics are more commonly found on the beaches because of high UV radiation and abrasion by waves, and in the oceans where the degradation process is slower due to cooler temperature and reduced UV exposure.<sup>4</sup> The plastics that end up in either in the ocean or on land pollute the soil and water, and harm the wildlife by ingestion, choking or entanglement. Plastic bags can also choke waterways and aggravate natural disasters.

#### - **The Impacts of Plastics on Human Health**

The plastics and microplastics, that break down from plastics, can enter into food chains by the consumption of fish and other animals. Recent studies reveal that even common table salts, and both tap, and bottled waste contain microplastics.

The Styrofoam, which contains toxic chemicals such as styrene and benzene, can also lead to some health complications and has negative impacts on the nervous, respiratory and reproductive systems, and perhaps on the kidneys and liver.

The single-use plastics, predominantly plastic bags, also induce the transmission of vector-borne diseases such as malaria, by blocking sewage systems and providing breeding grounds for mosquitoes.<sup>5</sup>

#### - **The Impacts of Plastics on Climate Change**

The production of plastic is predominantly depended on non-renewables, which are mostly made up from fossil hydrocarbons. In the case plastic production growth continues at the current rate, it is foreseen that the “plastic industry may account for 20% of the world’s total oil consumption” by 2050.<sup>6</sup> In order to limit the global warming to 2°C, and to pursue efforts to limit it to 1.5°C, by 2100 in line with the Paris Agreement, the transition to renewable energy is highly critical. However, plastic production continues to be one of the most energy-intensive industries. Hence, the production of plastics and the incineration of the plastic wastes have the potential to aggregate the negative impacts of climate change.

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<sup>2</sup> UNEP (2018), SINGLE-USE PLASTICS, A Roadmap for Sustainability,

[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf)

<sup>3</sup> Ibid

<sup>4</sup> Ibid

<sup>5</sup> Ibid

<sup>6</sup> Ibid



## 1. Single-Use Plastic Policies in the EU and Turkey

To cope with the ever-growing plastic waste in the world, most countries have started to implement policies that levy, tax or ban single-use plastics in the last decades. While single-use plastic policies have taken place in most EU member states for decades, highly ambitious Union-wide policy instruments have also been introduced in the last decade.

Similarly, Turkey has also started to address the unmanageable single-use plastics at a policy level, in the last few years. Especially through its Zero Waste Project, Turkey has taken some steps on waste management and also introduced some economic instruments on specific plastic products, in line with the Environment chapter of the EU *acquis*.

### 1.1. Plastic Bag Consumption in the EU

Each year, nearly 100 billion plastic bags are consumed in the EU. This indicates an annual average per capita consumption of 200 plastic bags.<sup>7</sup> However, these plastic bags have adverse impacts on the environment, notably on marine life. To avoid the increased single-use plastic bag consumption and their adverse impacts on the nature, on 29 April 2015, the EP and the European Council adopted Directive (EU) 2015/720 amending Directive 94/62/EC as regards reducing the consumption of lightweight plastic carrier bags (Plastic carrier bags with a wall thickness below 50 microns).

Directive (EU) 2015/720<sup>8</sup> mainly aims at:

- 1) limiting the number of lightweight plastic bags consumed per capita annually to 90 by 2019 and allows the Member States to take measures to limit the consumption by 31 December 2019.
- 2) limiting the number of lightweight plastic bags consumed per capita annually to 40 by 2025.
- 3) adopting some measures so that the lightweight plastic bags are not given free of charge at the point of sale of goods or products by 31 December 2018.

However, the Member States are left with a choice to exempt very lightweight plastic carrier bags with a wall thickness below 15 microns for hygienic purposes. The Directive also authorises the European Commission to put forward the specifications of labels or marks to ensure Union-wide recognition of biodegradable and compostable plastic bags and to provide accurate information about these bags to the consumers across the EU by 27 May 2017.

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<sup>7</sup> EP Directorate for Relations with National Parliaments (2017), Spotlight on Parliaments in Europe, Measures to reduce the consumption of plastic bags and disposable tableware, Retrieved in March 2021, from [http://www.epgencms.euoparl.europa.eu/cmsdata/upload/8109834a-5869-4e05-b65c-9976ef7e7904/N\\_17\\_Consumption\\_of\\_plastic\\_bags.pdf](http://www.epgencms.euoparl.europa.eu/cmsdata/upload/8109834a-5869-4e05-b65c-9976ef7e7904/N_17_Consumption_of_plastic_bags.pdf)

<sup>8</sup> 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, Official Journal of the European Union, Retrieved in March 2021, from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015L0720&rid=1>



The EU's new political priority which aims at "making Europe the first climate-neutral continent", European Green Deal, also emphasises the importance of circular economy action plans along with its ambitious climate plans. Within the framework of "Mobilising industry for a clean and circular economy",<sup>9</sup> the EU aims to modernise its economy and benefit from the opportunities a circular economy could provide, which led the EU to publish the "Circular Economy Action Plan for a Cleaner and more Competitive Europe" in March 2020.

### **1.1.1. Policy Instruments for Reducing Plastic Bag Consumption in EU Member States**

While the Directive (EU) 2015/720 obliges the Member States to limit the number of lightweight plastic bags consumed per capita, the Member States are free to implement the kind of policy instrument they would prefer.

- Some EU Member States preferred to limit the number of plastic bags through voluntary agreements: Germany and Finland (although Germany has voted to ban plastic bags from 2022).
- Some EU Member States preferred to impose levy or a fee on plastic bags: Bulgaria, Czechia, Denmark, Estonia, Greek Administration of Southern Cyprus, Croatia, the Netherlands, Spain, Ireland, Sweden, Latvia, Lithuania, Luxemburg, Hungary, Malta, Slovakia, Slovenia, and Greece.
- Some EU Member States preferred to ban plastic bags altogether: Austria, Belgium, France, Italy, Poland, Portugal, and Romania.

## **1.2. Plastic Bag Consumption in Turkey**

Plastic waste pollution has become one of the greatest environmental challenges Turkey has to face in the last decade. According to a statement made by the Ministry of Environment and Urbanisation in late 2018,<sup>10</sup> 30-35 billion plastic bags were consumed annually in Turkey, which represented approximately 440 plastic bags per person per year. This indicated that the plastic bag consumption in Turkey was highly above European average.

To prevent the excessive plastic bag consumption and plastic pollution, the Minister of Environment and Urbanisation Murat Kurum declared in the late 2018 that, starting from 1 January 2019, plastic bag consumption per person per year would be limited to 90 by 31 December 2019 and to 40 by 31 December 2025.<sup>11</sup> These targets are also in line with the EU Directive 2015/720.

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<sup>9</sup> "Kaza, Silpa; Yao, Lisa C.; Bhada-Tata, Perinaz; Van Woerden, Frank. 2018. What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050. Urban Development;. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/30317> License: CC BY 3.0 IGO."

<sup>10</sup> Sifir Atik, Videolar, Retrieved in March 2021, from <https://sifiratik.gov.tr/kutuphane/videolar>

<sup>11</sup> Ministry of Environment and Urbanisation(2018), BAKAN KURUM: "PLASTİK POŞET KULLANIMINI KİŞİ BAŞI 440 ADETTEN 40'A DÜŞÜRECEĞİZ", Retrieved in March 2021, from <https://csb.gov.tr/bakan-kurum-plastik-poset-kullanimini-kisi-basi-440-adetten-40-a-dusurecegiz-bakanlik-faaliyetleri-25374>



The regulation entitled “The Procedures and Principles Regarding the Charging of Plastic Bags” (“*Plastik Poşetlerin Ücretlendirilmesine İlişkin Usul ve Esaslar*”)<sup>12</sup> requires that the carrier plastic bags will be charged for no less than 0.25 Turkish liras at the point of sales of products. The Central Accountancy Directorate of the Ministry of Environment and Urbanisation will be collecting 0.15 Turkish liras per plastic bag as a recycling contribution share. However, plastic bags used for hygiene purposes such as the ones with a double layer of thickness of 15 microns and below, and smaller than 500x350 mm in size, plastic bags only used in places services are provided are exempted from this regulation.

Although this regulation sparked off a strong reaction in the public at first, the number of plastic bags used per person decreased significantly in a short time period. According to the statements made by the Ministry of Environment and Urbanisation in early 2020,<sup>13</sup> single-use plastic bag consumption decreased by 77% in just one year, and plastic bag consumption per person per month decreased from 35 to 10 by the end of 2019. Furthermore, approximately 200 thousand tons of plastic was saved since the introduction of the plastic bag charge and 8 thousand tons of greenhouse gas emissions were prevented.

However, due to the increased consumption of free lightweight plastic bags, markets will be expected to give out paper bags to the customers instead. Moreover, plastic bags provided for online purchases will be charged as well.<sup>14</sup>

Although the charge of plastic bags increased to 0.30 Turkish liras at the beginning of 2020, the Ministry of Environment and Urbanisation announced that plastic bags will continue to be sold for 0.25 Turkish liras.<sup>15</sup> However, the recycling contribution share has increased to 0.18 Turkish liras in 2020 and to 0.19 Turkish liras in 2021.<sup>16</sup>

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<sup>12</sup> Ministry of Environment and Urbanisation (2018), Plastik Poşetlerin Ücretlendirilmesine İlişkin Usul ve Esaslar, Retrieved in March 2021, from

<https://webdosya.csb.gov.tr/db/cygm/icerikler/plasposetuerev20190109-20190109144024.pdf>

<sup>13</sup> Ministry of Environment and Urbanisation (2020), YENİ YILDA PLASTİK POŞETE ZAM UYGULANMAYACAK, Retrieved in March 2021, from <https://csb.gov.tr/yeni-yilda-plastik-posete-zam-uygulanmayacak-bakanlik-faaliyetleri-29686>

<sup>14</sup> Yılmaz T. (2020), Son dakika haberler: 20 milyar liralık depozito yasası! Markette kağıt torba, internette paralı poşet..., Hürriyet, Retrieved in March 2021, from <https://www.hurriyet.com.tr/ekonomi/son-dakika-haberi-20-milyar-liralik-depozito-yasasi-markette-kagit-torba-internette-parali-poset-41697779#:~:text=B%C3%BCy%C3%BCk%20tasarruf%20sa%C4%9Flayan%20%C3%BCcretli%20po%C5%9Fet,%C5%9Fetlerin%20yerini%20kese%20k%C3%A2%C4%9F%C4%B1d%C4%B1%20alacak.>

<sup>15</sup> Ministry of Environment and Urbanisation (2020), YENİ YILDA PLASTİK POŞETE ZAM UYGULANMAYACAK, Retrieved in March 2021, from <https://csb.gov.tr/yeni-yilda-plastik-posete-zam-uygulanmayacak-bakanlik-faaliyetleri-29686>

<sup>16</sup> Evrensel (2021), Poşet hesabına göre, 83 milyonun büyük bölümü yılda bir kez bile alışveriş yapmıyor, Retrieved in March 2021, from <https://www.evrensel.net/haber/427155/poset-hesabina-gore-83-milyonun-buyuk-bolumu-yilda-bir-kez-bile-alisveris-yapmiyor>



## 2.1. Comprehensive Plastic Regulations in the EU

The role and importance of plastics in the EU economy has increased substantially over the past 50 years. While plastic production on a global scale reached approximately 360 million tons in 2018, this amount was recorded to be 62 million tons in Europe.<sup>17</sup> While an increase in plastic production can be observed on a global scale, there is a slight decrease in plastic production in Europe. On the other hand, with a turnover of more than 360 billion euros, the European plastics industry has also created direct jobs for 1.6 million people.<sup>18</sup>

The demand for plastics in Europe is also increasing each year. The demand for plastics has increased from 49 million tons in 2015 to 51.2 million tons in 2018.<sup>19</sup> The European countries with the highest plastic demand, but also recycled more than 3 million tons of plastic in the same year were respectively Germany, Italy, France, Spain, the United Kingdom, and Poland. However, it was the six largest European countries (in terms of population) and the Benelux countries that accounted for 80% of the plastic demand in Europe.<sup>20</sup>

On the other hand, packaging, building, and construction sectors make up the biggest end-use markets. These three sectors account for more than half of the total demand in Europe.

Packaging sector is one of the most important components in plastic production across the EU. In 2015, 59% of the total plastic waste produced in the EU was packaging waste materials.<sup>21</sup> It is also concerning that the EU could only recycle 41.9% of plastic packaging waste in 2017.<sup>22</sup> Accordingly, more than half of the plastic packaging waste was recycled in only seven Member States.<sup>23</sup> Countries that recycle the most plastic packaging waste in the EU in 2017 were respectively Lithuania (74%), Bulgaria (65%), Greek Administration of Southern Cyprus (62%, 2016 data), Slovenia (60%), Czechia (59%), Slovakia (52%) and the Netherlands (50%), while the countries that recycled the least were Malta (26%, 2016 data), Estonia, France and Finland (each 27%), Ireland (31%), Hungary (32%), Luxembourg and Austria (33%).<sup>24</sup>

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<sup>17</sup> © Plastics Europe, Plastics – the Facts 2019, Retrieved in March 2021, from [https://www.plasticseurope.org/application/files/9715/7129/9584/FINAL\\_web\\_version\\_Plastics\\_the\\_facts2019\\_14102019.pdf](https://www.plasticseurope.org/application/files/9715/7129/9584/FINAL_web_version_Plastics_the_facts2019_14102019.pdf)

<sup>18</sup> Ibid

<sup>19</sup> Ibid

<sup>20</sup> Ibid

<sup>21</sup> European Commission, A European Strategy for Plastics in a Circular Economy, Retrieved in March 2021, from <https://ec.europa.eu/environment/circular-economy/pdf/plastics-strategy-brochure.pdf>

<sup>22</sup> Eurostat, How much plastic packaging waste do we recycle?, Retrieved in March 2021, from [https://ec.europa.eu/eurostat/web/products-eurostat-news/product/-/asset\\_publisher/VWJkHuaYvLIN/content/DDN-20191105-2/pop\\_up?\\_101](https://ec.europa.eu/eurostat/web/products-eurostat-news/product/-/asset_publisher/VWJkHuaYvLIN/content/DDN-20191105-2/pop_up?_101)

<sup>23</sup> Ibid

<sup>24</sup> Ibid



Graph 2: Recycling rate of plastic packaging wastes in the EU in the period 2006-2017



Source: Eurostat

According to Plastics Europe, 32.5% of 29.1 million tons of post-consumer plastic waste collected in 2018 was recycled and 42.6% was used in energy recovery, while the remaining 24.9% ended up in landfills.

In the same year, 42% of the 17.8 million tons of post-consumer plastic packaging waste was recycled. On the other hand, 39.5% of them were used in energy recovery and 18.5% was sent to landfills.

With regard to the threats posed by plastic waste, the EU adopted the first "Circular Economy Action Plan"<sup>25</sup> in 2015. By 2030, this plan primarily aims at:

- ▲ Increasing the recycling rate of municipal waste to 65% across the EU;
- ▲ Increasing the recycling rate of packaging waste to 75% across the EU;
- ▲ Setting different goals for packaging made of different materials;
- ▲ Reducing the landfill rate to 10%.

The first Circular Economy Action Plan achieved a great success. By means of the action plan, sectors related to the circular economy provided more than 4 million jobs. The circular activities such as repair, reuse or recycling provided an added value of 147 billion euros, while attracting 15.5 billion euros worth of investment in 2016.<sup>26</sup>

Based on this success, the EU released the "A European Strategy for Plastics in a Circular Economy" in 2018, as a wider plan to develop a "circular economy".<sup>27</sup> With the strategy, the EU put an emphasis on the need to design plastics and plastic products in a way that is more durable, reusable, and high-quality recyclable. It became mandatory for all plastic packaging, which will take its place in the EU market by 2030, to be reusable or recyclable. The EU also resolved to reduce the consumption of single-use plastics and

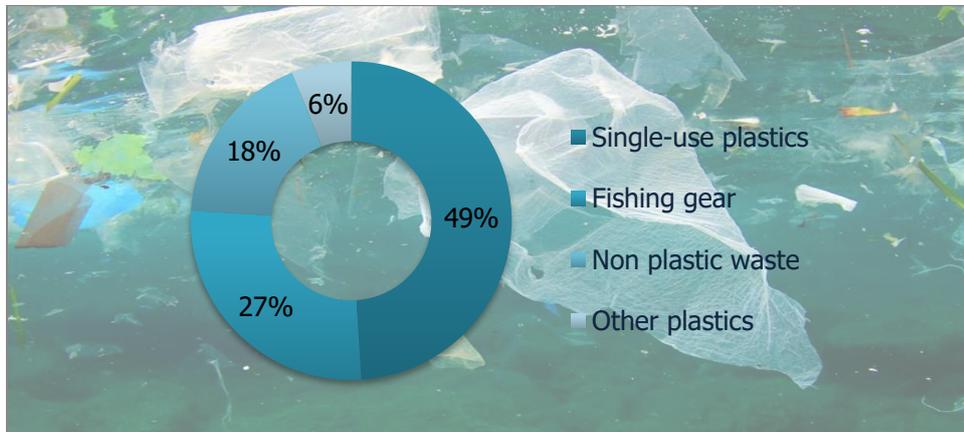
<sup>25</sup> European Commission (2015), Closing the loop: Commission adopts ambitious new Circular Economy Package to boost competitiveness, create jobs and generate sustainable growth, Brussels, Retrieved in March 2021, from [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_15\\_6203](https://ec.europa.eu/commission/presscorner/detail/en/IP_15_6203)

<sup>26</sup> European Commission (2019), Closing the loop: Commission delivers on Circular Economy Action Plan, Brussels, Retrieved in March 2021, from [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_19\\_1480](https://ec.europa.eu/commission/presscorner/detail/en/IP_19_1480)

<sup>27</sup> Ibid

limit the use of microplastics strategy with the strategy. The strategy also stated that the plastic waste sorting and recycling capacity by 2030 will increase four times compared to 2015.

Graph 3: Marine Litters



Source: European Commission

Each year, 4.8-12.7 million tonnes of plastics enter the oceans.<sup>28</sup> While 80-85% of marine litter is plastic in the EU, single-use plastic items make up 50% of the total.<sup>29</sup> Since marine litters, especially commonly found single-use plastics, pose a great threat for marine life, the European Parliament and the Council of the European Union reached a political agreement in 2018 on the Commission's proposal for an ambitious measure which aims at tackling marine litter at source. This measure targeted 10 plastic products that could often be found on beaches and abandoned fishing gear.<sup>30</sup> The Council finally adopted this ambitious measure in 2019. With the single-use plastics directive, by mid-2021, the EU bans the top ten most frequently found single-use plastics for which sustainable and affordable alternatives exist such as:<sup>31</sup>

- cutlery, plates, straws, and stirrers,
- food containers
- balloons and balloon sticks,
- cotton bud sticks,
- cups for beverages,
- beverage containers (except the ones with caps and lids attached),

<sup>28</sup> Lindwall C. (2020), Single-Use Plastics 101, NRDC, Retrieved in March 2021, from <https://www.nrdc.org/stories/single-use-plastics-101#:~:text=In%202015%20researchers%20from%20the,30%20miles%20of%20a%20coast.>

<sup>29</sup> European Council (2019), DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ON THE REDUCTION OF THE IMPACT OF CERTAIN PLASTIC PRODUCTS ON THE ENVIRONMENT, Brussels, Retrieved in March 2021, from <https://data.consilium.europa.eu/doc/document/PE-11-2019-REV-1/en/pdf>

<sup>30</sup> European Commission (2018), Single-use plastics: Commission welcomes ambitious agreement on new rules to reduce marine litter, Brussels, Retrieved in March 2021, from [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_18\\_6867](https://ec.europa.eu/commission/presscorner/detail/en/IP_18_6867)

<sup>31</sup> European Commission, Single-use plastics, Retrieved in March 2021, from [https://ec.europa.eu/environment/topics/plastics/single-use-plastics\\_en](https://ec.europa.eu/environment/topics/plastics/single-use-plastics_en)



- cigarette butts,
- plastic bags,
- packets and wrappers,
- wet wipes and sanitary items.

Member States also agreed on a 90% collection target for plastic bottles by 2029, and plastic bottles will have to contain at least 25% of recycled content by 2025 and 30% by 2030.<sup>32</sup>

Circular economy is also an integral part of the Commission's biggest priority, the European Green Deal, which aims to render the EU's economy sustainable. EU published a new circular economy action plan on 25 March 2020 as a part of the European Green Deal. This new strategy entitled "Circular Economy Action Plan for a Cleaner and More Competitive Europe",<sup>33</sup> mainly proposes to increase the recycled content and set forth waste reduction measures for key products such as packaging, building materials and automobiles.

The plan builds on "sustainable principles". It seeks to improve product "durability, reusability, upgradability and reparability" and addresses the existence of hazardous chemicals that products contain, all the while increasing energy and resource efficiency and reducing carbon and environmental footprints.<sup>34</sup> It also holds the producers liable for the products' performance throughout their lifecycles and proposes a digital passport, tagging or watermarking for product information. Through classifications of performances, the EU also intends on incentivising higher performance.

Regarding plastics, the plan stresses that the Commission will take some measures to tackle the presence of microplastics in the environment, such as restricting intentionally added microplastics and putting forth labelling, standardisation, certification, and regulation of unintentional release of microplastic.<sup>35</sup>

Most importantly, the EU has also recently decided to introduce tax on plastic packaging waste to fund the COVID-19 recovery package, Next Generation EU, and the 2021-2027 Multi-Annual Financial Framework. Accordingly, a 0.80 euros per kilogram tax has started to be imposed on non-recycled plastic packaging as of 1 January 2021, as national contributions to the EU budget, in a way to create "new own resources" for the

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<sup>32</sup> European Council (2019), Council adopts ban on single-use plastics, Retrieved in March 2021, from <https://www.consilium.europa.eu/en/press/press-releases/2019/05/21/council-adopts-ban-on-single-use-plastics/>

<sup>33</sup> European Commission (2020), Circular Economy Action Plan for a Cleaner and More Competitive Europe, Retrieved in March 2021, from [https://ec.europa.eu/environment/circular-economy/pdf/new\\_circular\\_economy\\_action\\_plan.pdf](https://ec.europa.eu/environment/circular-economy/pdf/new_circular_economy_action_plan.pdf)

<sup>34</sup> Ibid

<sup>35</sup> Ibid

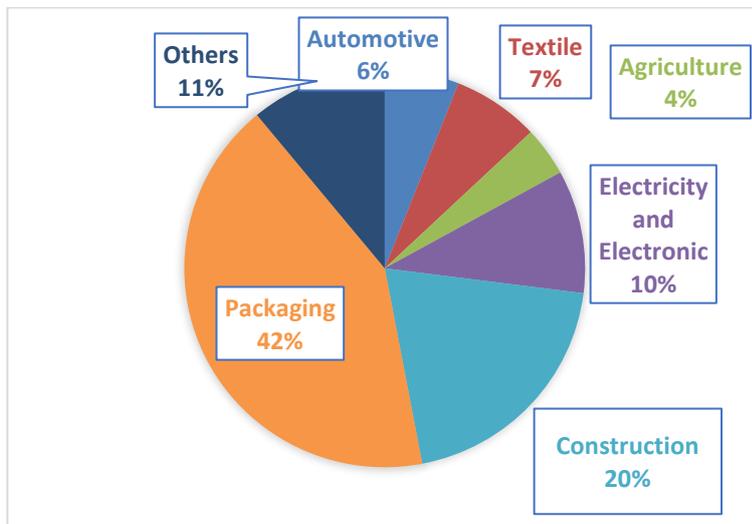


EU.<sup>36</sup> It is estimated that the tax would generate 6.6 billion annually for the EU budget.<sup>37</sup> France and Germany are expected to be hit hardest by this measure while Italy, Spain and Poland follow, albeit not closely.<sup>38</sup>

## 2.2. Comprehensive Plastic Regulations in Turkey

According to the latest data provided by PAGEV,<sup>39</sup> 9.54 million tons of plastic products were produced in Turkey in 2020. Although the capacity utilisation became unstable in 2020 due to coronavirus pandemic, a slight increase in plastic products production can be observed, since 9.46 million tons of plastic products were produced in 2019.<sup>40</sup> This increase originated from the high increase in exports, despite the decreasing demand in the domestic market.<sup>41</sup>

Graph 5: The Share of Plastic Product Production by Sectors in 2020



In a similar trend to the EU, plastic packaging production takes the lead with 4 million tons. Plastic construction material production follows with 1.9 million tons. The share of packaging plastic production increased from 40% in 2019 to 42% in 2020.

Source: PAGEV

Turkey also gives a significant importance to the recycling and recovery of packaging plastic waste, which is one of the most produced and consumed plastic products. According to the “Regulation on the Control of Packing Wastes Directive” (Ambalaj

<sup>36</sup> European Commission (2020), Special meeting of the European Council (17, 18, 19, 20 and 21 July 2020) – Conclusions, Retrieved in March 2021, from <https://www.consilium.europa.eu/media/45109/210720-euco-final-conclusions-en.pdf>

<sup>37</sup> Schaart E.(2020), France, Germany set to pay the most under EU plastics tax, Politico, Retrieved in March 2021, from <https://www.politico.eu/article/france-germany-set-to-pay-the-most-under-eu-plastics-tax/>

<sup>38</sup> Ibid

<sup>39</sup> PAGEV, Türkiye Plastik Sektör İzleme Raporu 2020, Retrieved in March 2021, from <https://pagev.org/upload/files/T%C3%BCrkiye%20Plastik%20Sekt%C3%B6r%20%C4%B0zleme%20Raporu%202020%20revize%20%283%29.pdf>

<sup>40</sup> PAGEV, Türkiye Plastik Sektör İzleme Raporu 2019, Retrieved in March 2021, from <https://pagev.org/upload/files/Plastik%20Sekt%C3%B6r%20Raporu%202019.pdf>

<sup>41</sup> PAGEV, Türkiye Plastik Sektör İzleme Raporu 2020, Retrieved in March 2021, from <https://pagev.org/upload/files/T%C3%BCrkiye%20Plastik%20Sekt%C3%B6r%20%C4%B0zleme%20Raporu%202020%20revize%20%283%29.pdf>



Atıkları Kontrolü Yönetmeliği) published on Official Gazette on 27 December 2017 and numbered 30283, packages must be "reused, recycled, recovered and, designed and produced in a way that will give the least harm to the environment in the management and disposal stages that include these processes".<sup>42</sup> Within the framework of the Regulation, the Ministry of Environment and Urbanisation aims to achieve at least 60% recovery and at least 55% recycling target for plastic packaging waste as of 2020 by taking the necessary measures together with all parties that have obligations under the Regulation. Additionally, the Regulation states that the reusable packaging must be preferred in order to control the consumption of single use packaging and its wastes.

"Zero Waste" and "Zero Waste Blue" projects are also implemented in the initiative of the Ministry of Environment and Urbanisation to increase efficiency, prevent waste and reduce costs, raise awareness among consumers, increase performance thanks to clean environment and reduced environmental risks.<sup>43</sup>

In accordance with the fifth repeating "Regulation on the Recycling Contribution Share" (Geri Kazanım Katılım Payına İlişkin Yönetmelik) numbered 30995 published in the Official Gazette on 1 December 2019, a recycling contribution fee (GEKAP) has been started to be collected as of 1 January 2020 for the packaging of the products that are within the scope of the Regulation, and that are placed on the domestic market, except for the primary packaging.<sup>44</sup> The products covered by the Regulation are determined as tires, accumulators, batteries, mineral and vegetable oil, medicine, electrical and electronic goods and beverage packaging. While the Regulation also covers cardboard, glass, metal, composite and wooden packaging as well as plastic packaging; primary packaging is exempted.

Additionally, The Grand National Assembly of Turkey ratified a law on the establishment of the "Turkish Environment Agency" in line with the Zero Waste Project targets. The Turkish Environment Agency was formally founded with the "Establishment of Turkish Environment Agency and Legislative Proposal for Amending Some Laws" (*Türkiye Çevre Ajansının Kurulması ile Bazı Kanunlarda Değişiklik Yapılmasına Dair Kanun*), which was published on the Official Gazette on 30 December 2020.<sup>45</sup> This agency will be mainly responsible for the Zero Waste Project targets and for better collection of the deposit fees in line with the mandatory deposit scheme that is expected come into force in 2022. The Agency will also receive 25% of the collected contribution fees.

This scheme was expected to come into force already since the Ministry of Environment and Urbanisation stated before that Turkey will impose a mandatory deposit on beverage packaging within the framework of Deposit Refund System Project (TÜDİS) as

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<sup>42</sup> Official Gazette of the Turkish Republic (2017), 30283 Sayılı Ambalaj Atıkları Kontrolü Yönetmeliği, Retrieved in March 2021, from <https://www.resmigazete.gov.tr/eskiler/2017/12/20171227-12.htm>

<sup>43</sup> Ministry of Environment and Urbanisation of Turkey Republic, Sıfır Atık Nedir?, Retrieved in March 2021, from <https://sifiratik.gov.tr/sifir-atik/sifir-atik-nedir>

<sup>44</sup> Official Gazette of the Turkish Republic (2019), Geri Kazanım Katılım Payına İlişkin Yönetmelik, Retrieved in March 2021, from <https://www.resmigazete.gov.tr/eskiler/2019/12/20191231M4-4.htm>

<sup>45</sup> Official Gazette of the Turkish Republic (2020), 31350 No'lu Türkiye Çevre Ajansının Kurulması ile Bazı Kanunlarda Değişiklik Yapılmasına Dair Kanun, Retrieved in March 2021, from <https://www.resmigazete.gov.tr/eskiler/2020/12/20201230-10.htm>

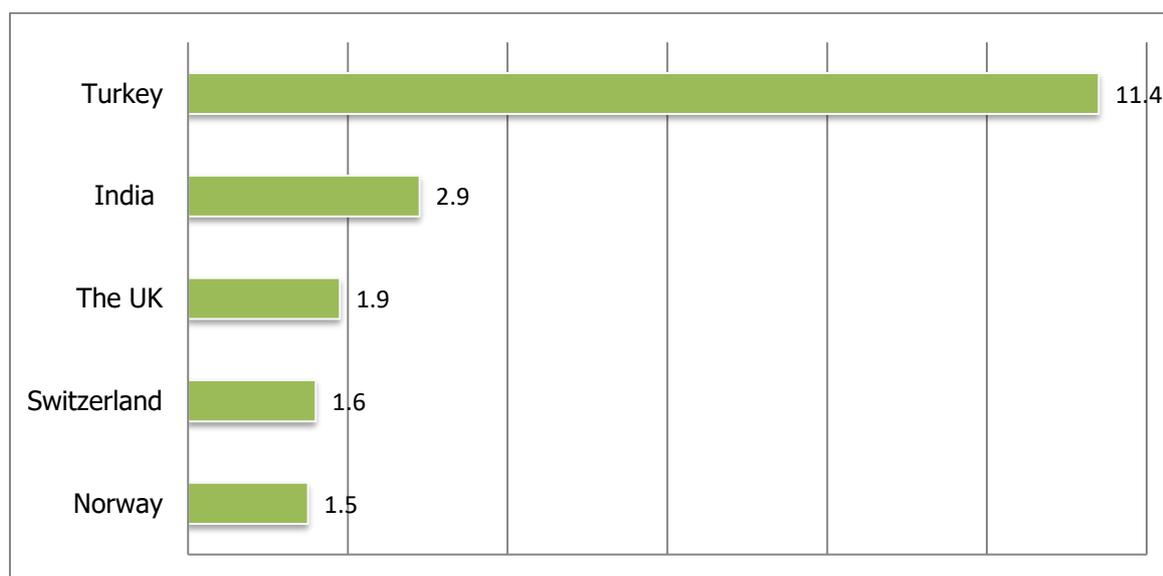


of 2021.<sup>46</sup> However, due to the COVID-19 pandemic, this date was pushed forward to 1 January 2022.<sup>47</sup> Minister of Environment and Urbanisation Murat Kurum stated that with the Deposit Refund System, “more than 20 billion beverage packaging wastes will be collected more cleanly, 90% of the waste will be recycled in 3-4 years and at least 1 million tons of additional waste will be prevented annually”.<sup>48</sup>

### 3. The Primary Destination for EU's Waste: Turkey

Turkey was the primary destination for the EU’s waste exports in 2019, with a volume around 11.4 million of tonnes.<sup>49</sup> This indicates an almost threefold increase compared to the EU’s waste exports to Turkey in 2004.<sup>50</sup> India, the UK, Switzerland, and Norway followed Turkey as the biggest importers of EU waste.

Graph 6: The top five destinations for EU’s waste in 2019 (million tonnes)<sup>51</sup>



Source: Eurostat

Following China’s decision to ban plastic waste imports, the EU exported its plastic waste primarily to Malaysia (24%), Turkey (17%) and Indonesia (6%) in 2019.<sup>52</sup>

<sup>46</sup> BloombergHT (2019), "Zorunlu depozitoda hedef yılda 50 milyar içecek ambalajı", Retrieved in March 2021, from <https://www.bloomberght.com/zorunlu-depozitoda-hedef-yilda-50-milyar-icecek-ambalaji-2231483>

<sup>47</sup> Boztepe A. Ş. (2020), Türkiye Çevre Ajansı kuruldu, Retrieved in March 2021, from <https://www.aa.com.tr/tr/turkiye/turkiye-cevre-ajansi-kuruldu/2093383>

<sup>48</sup> Kaplan E. (2020), Çevre ve Şehircilik Bakanı Kurum: Depozito İade Sistemi'nin etkinliğini Çevre Ajansımızdan yöneterek artıracamız, Anadolu Agency, Retrieved in March 2021, from <https://www.aa.com.tr/tr/turkiye/cevre-ve-sehircilik-bakani-kurum-depozito-iade-sisteminin-etkinligini-cevre-ajansimizdan-yoneterek-artiracagiz/2010835>

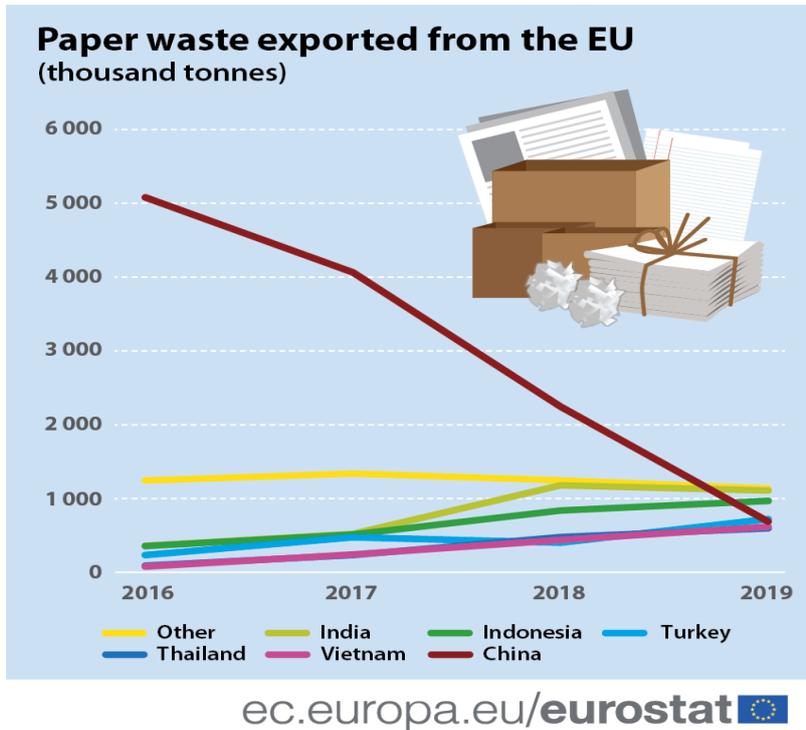
<sup>49</sup> European Commission (2020), Turkey: main destination for EU’s waste, Retrieved in March 2021, from <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20200416-1>

<sup>50</sup> Ibid

<sup>51</sup> This table covers EU-27.

<sup>52</sup> Eurostat (2020), EU exports of recyclables to China fallen sharply, Retrieved in March 2021, from <https://ec.europa.eu/eurostat/en/web/products-eurostat-news/-/DDN-20200709-01>

Moreover, according to the Greenpeace Turkey, the amount of plastic waste Turkey imported from the EU increased 173 times in 2019 compared to 2004.<sup>53</sup> Greenpeace Turkey portrays this situation as “213 trucks full of plastic dumping these plastics in Turkey every day”.<sup>54</sup> Top five plastic waste exporters to Turkey were respectively the UK (153,976 tonnes), Italy (85,843 tonnes), Belgium (85,843 tonnes), Germany (67,466 tonnes), and France (56,824 tonnes).<sup>55</sup>



When exporting waste to other countries, the EU takes its lack of capacity and gains in recycling into account. However, EU law prohibits EU members from exporting their waste to countries outside the Union for disposal purposes. Nevertheless, there is not enough information and transparency on how plastic waste exported from the EU to non-EU countries is managed.

According to an investigation from BBC,<sup>56</sup> plastic waste exported by the UK to Turkey for recycling purposes are either dumped by the roadsides or incinerated. Some environmentalists criticised this by questioning “how Turkey can recycle the imported plastic waste when it lacks the capacity to recycle its own plastic waste”.<sup>57</sup> Following the

<sup>53</sup> Greenpeace Turkey (2020), Türkiye’de plastik atık ithalatı son 15 yılda 173 kat arttı, Retrieved in March 2021, from <https://www.greenpeace.org/turkey/basin-bultenleri/turkiyede-plastik-atik-ithalati-son-15-yilda-173-kat-artti/>

<sup>54</sup> Ibid

<sup>55</sup> Ibid

<sup>56</sup> Crawford A. (2020), Why is UK recycling being dumped by Turkish roadsides?, BBC, Retrieved in March 2021, from <https://www.bbc.com/news/av/uk-53181948>

<sup>57</sup> Ibid

criticisms, this situation was noted by the UK government, as plastic waste for disposal could not be exported to a country outside the Union under EU law.<sup>58</sup>

#### 4. The Plastic Wars

China, the major plastic waste importer in the world, announced a plastic waste import ban (amongst other kinds of waste) in 2017 to fight plastic pollution and improve quality of life. Before the ban, China alone imported almost half of the world's plastic waste since 1992.<sup>59</sup> China's decision to ban plastic waste imports became a matter of concern for major plastic waste exporters such as the EU, the US, Canada, Australia, and South Korea.<sup>60</sup> Following the ban decision, predominantly Asian and developing countries filled in the gap China left behind. Malaysia, Vietnam, Thailand, Indonesia, Taiwan, South Korea, Turkey, India, and Poland became the biggest plastic waste importers.<sup>61</sup> However, some of these countries issued complaints on the quality of the plastic waste they imported. By stating that the imported plastic waste was non-recyclable, Malaysia shipped back it to their country of origin. Especially the plastic waste imported from the UK was deemed to be non-recyclable rubbish and was claimed to be buried in landfills.<sup>62</sup> As seen by the previously mentioned BBC investigation, Turkey was one of the countries facing a similar problem.<sup>63</sup>

Similarly, other importer countries also issued complaints on the same issue.<sup>64</sup> While Poland put more strict rules on plastic waste imports, Thailand banned plastic waste import temporarily and announced that it will be banned altogether as of 2021. On the other hand, Vietnam stopped issuing new licenses for plastic waste imports, and announced that these wastes would be completely banned in 2025. India was one of the countries that have decided to ban plastic waste import. As a result of the restrictions and bans on the plastic waste imports, Turkey became one of the biggest importers of plastic waste.

The EU, collectively, is the major exporter of plastic waste.<sup>65</sup> Consequently, the EU is also one of the parties affected by the restrictions and bans, the most. In the case of waste import and export with third countries (except EFTA), the EU is responsible for examining whether the waste shipment is done legally. The import and export of waste

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<sup>58</sup> The UK's Defra Press Office (2020), BBC investigates plastic waste exports to Turkey, Retrieved in March 2021, from <https://deframedia.blog.gov.uk/2020/06/26/bbc-investigates-plastic-waste-exports-to-turkey/>

<sup>59</sup> Brooks A. L., Wang S., Jambeck J. R (2018), The Chinese import ban and its impact on global plastic waste trade, Science Mag, Retrieved in March 2021, from <https://advances.sciencemag.org/content/4/6/eaat0131>

<sup>60</sup> WTO (2017), China's import ban on solid waste queried at import licensing meeting, Retrieved in March 2021, from [https://www.wto.org/english/news\\_e/news17\\_e/impl\\_03oct17\\_e.htm](https://www.wto.org/english/news_e/news17_e/impl_03oct17_e.htm)

<sup>61</sup> Reality Check Team (2019), Why some countries are shipping back plastic waste, BBC News, Retrieved in March 2021, from <https://www.bbc.com/news/world-48444874>

<sup>62</sup> Ibid

<sup>63</sup> Crawford A. (2020), Why is UK recycling being dumped by Turkish roadsides?, BBC, Retrieved in March 2021, from <https://www.bbc.com/news/av/uk-53181948>

<sup>64</sup> Reality Check Team (2019), Why some countries are shipping back plastic waste, BBC News, Retrieved in March 2021, from <https://www.bbc.com/news/world-48444874>

<sup>65</sup> Brooks A. L., Wang S., Jambeck J. R (2018), The Chinese import ban and its impact on global plastic waste trade, Science Mag, Retrieved in March 2021, from <https://advances.sciencemag.org/content/4/6/eaat0131>



are regulated by the Regulation (EC) No. 1013/2006 on shipment of waste.<sup>66</sup> This Regulation points to the Basel Convention as the primary source to be complied with for the import and export of waste. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, which entered into force in 1992, aims to protect human health and environment by removing the hazards that may arise from transboundary transportation, disposal, and recycling of hazardous and other waste.<sup>67</sup> The Basel Convention has 187 members, including Turkey and the EU. The transportation of wastes from industrialised countries to developing countries constitutes the most important element emphasised by the Convention. Every state that is a party to the Convention has the right to prohibit the import and export of hazardous or other wastes.

The developing countries' increased waste imports and their inability to manage this waste in an environmentally sound manner revealed the necessity to amend the Basel Convention. To address this issue, the Conference of the Parties adopted "The Ban Amendment" as a decision in 1994. The Basel Ban Amendment aims to prohibit all transboundary movements of hazardous wastes destined for recovery or recycling operations from OECD to non-OECD countries.<sup>68</sup> Although ratified in 1995, it has not entered into force until recently.

To address the plastic waste issue, more than 180 countries came into an agreement in 2019 on the inclusion of mixed plastic scraps to the Basel Convention.<sup>69</sup> While it has been implemented by some parties, The Basel Ban Amendment, which bans the export of hazardous waste from developed countries to developing ones, finally came in to force officially as of 2021. Furthermore, the Basel Convention Plastic Waste Amendments came into force as of 1 January 2021 to enhance the control of the transboundary movements of plastic waste and to clarify the scope of the Convention as it applies to such waste.<sup>70</sup> Thus, contaminated, mixed, and non-recyclable plastic wastes will not be allowed to be shipped to non-OECD countries without the consent of the receiving countries.

Based on the Basel Convention amendments, the EU also adopted new rules on the export, import and intra-EU shipment of plastic waste on 22 December 2020. While

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<sup>66</sup> Official Journal of the European Union(2006), REGULATION (EC) No 1013/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 June 2006 on shipments of waste, Retrieved in March 2021, from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1013&from=EN>

<sup>67</sup> UNEP and Basel Convention(2019), Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal, Retrieved in March 2021, from <http://www.basel.int/Portals/4/download.aspx?d=UNEP-CHW-IMPL-CONVTEXT.English.pdf>

<sup>68</sup> Basel Convention, The Basel Convention Ban Amendment, Retrieved in March 2021, from <http://www.basel.int/Implementation/LegalMatters/BanAmendment/Overview/tabid/1484/Default.aspx>

<sup>69</sup> Parker L. (2019), Shipping plastic waste to poor countries just got harder, National Geographic, Retrieved in March 2021, from <https://www.nationalgeographic.com/environment/2019/05/shipping-plastic-waste-to-poor-countires-just-got-harder/>

<sup>70</sup> Basel Convention, Basel Convention Plastic Waste Amendments, Retrieved in March 2021, from <http://www.basel.int/Implementation/Plasticwaste/PlasticWasteAmendments/Overview/tabid/8426/Default.aspx>



amending the Waste Shipment Regulation accordingly, the EU takes it a step further and establish stricter rules.<sup>71</sup> Under the new framework, exporting clean and non-hazardous waste for recycling purposes to non-OECD countries is expected to be authorised only if the importing country specifies to the European Commission which rules apply to such imports. In the case the importing country does not inform the European Commission about their legal regime, “prior notification and consent procedure” will be applied. The new EU rules are observed to be stricter than the original Basel Convention amendments. Regarding the exports to the other OECD countries, the EU states that “exporting plastic waste from the EU to OECD countries and imports in the EU will also be more strictly controlled”. Accordingly, exporting hazardous plastic waste and hard-to-recycle plastic waste to the OECD countries will be subject to the “prior notification and consent procedure” and both parties will be required to authorise the shipment.

On the other hand, the US’ unwillingness to ratify and implement the Basel Convention continues to raise concern all over the world. In fact, the US ships plastic scrap to poorer countries more than before in spite of the new amendment by stating that “the US is one of the few countries that have not ratified the amendment”.<sup>72</sup> While the industry says that the exports are most likely compliant with the recent amendment, it is well known that most of the plastic scraps exported from the US have not been recycled but ended up as waste in the recent history.<sup>73</sup> Furthermore, a report by INTERPOL estimates it likely that plastic waste trade will continue to adapt and re-route shipments to new and vulnerable countries, despite the new regulations restricting plastic waste exports.<sup>74</sup>

Turkey, an OECD member, and the only country that has ratified the Basel Convention but not its Plastic Waste Amendments, is now at the risk of becoming a dump for plastic scraps. Turkey submitted a notification of non-acceptance pursuant to Article 18 (2)(c) and (3).<sup>75</sup> China and Canada had also submitted a notification of non-acceptance however withdrew later on. Turkey has explained that it has not accepted the amendments because Turkish authorities regard 1 January 2021 as early to make necessary preparations for the implementation of the amendments and additional time is needed.<sup>76</sup> While the non-recyclable plastic scraps cannot be exported to non-OECD

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<sup>71</sup> European Commission(2020), Plastic waste shipments: new EU rules on importing and exporting plastic waste, Retrieved in March 2021, from [https://ec.europa.eu/environment/news/plastic-waste-shipments-new-eu-rules-importing-and-exporting-plastic-waste-2020-12-22\\_en](https://ec.europa.eu/environment/news/plastic-waste-shipments-new-eu-rules-importing-and-exporting-plastic-waste-2020-12-22_en)

<sup>72</sup> Tabuchi H. and Corkery M. (2021), Countries Tried to Curb Trade in Plastic Waste. The U.S. Is Shipping More., The New York Times, Retrieved in March 2021, from <https://www.nytimes.com/2021/03/12/climate/plastics-waste-export-ban.html>

<sup>73</sup> Ibid

<sup>74</sup> INTERPOL(2020), Strategic Analysis Report- Emerging criminal trends in the global plastic waste market since January 2018, Retrieved in March 2021, from [https://www.interpol.int/content/download/15587/file/INTERPOL%20Report%20\\_criminal%20trends-plastic%20waste.pdf](https://www.interpol.int/content/download/15587/file/INTERPOL%20Report%20_criminal%20trends-plastic%20waste.pdf)

<sup>75</sup> Basel Convention, Amendments to Annexes II, VIII and IX to the Basel Convention Status of Ratifications, Retrieved in March 2021, from <http://www.basel.int/Countries/StatusofRatifications/PlasticWasteamendments/tabid/8377/Default.aspx>

<sup>76</sup> UN Treaties(2020), TURKEY: NOTIFICATION IN ACCORDANCE WITH ARTICLE 18 (2) (B) RELATING TO THE AMENDMENTS TO ANNEXES II, VIII AND IX OF THE CONVENTION Reference: C.N.109.2020.TREATIES-XXVII.3



countries anymore, these can be re-routed to Turkey since it is an OECD country. Turkey has already begun to be a primary destination for plastic waste due to the non-OECD countries' ban on polluted plastic waste import. Hence, this situation is thought to fuel the already existing plastic crisis in Turkey.

This situation is especially alarming considering that the recycling rate in Turkey is not sufficient currently. In 2018, only about 12% of the 32,209 thousand tonnes of collected municipality waste was sent to recycling facilities.<sup>77</sup> This rate was 46.8% in EU-28 and 47.2% in EU-27 in the same year.<sup>78</sup> On the other hand, 67% of the waste collected in Turkey was delivered to landfill sites and 20% was delivered to the municipalities' dumping sites.<sup>79</sup> Furthermore, according to a report entitled "Plastic waste inputs from land into the ocean", Turkey ranks as the 14<sup>th</sup> among the list of top 20 countries in the world that mismanage plastic waste.<sup>80</sup> Another report entitled "Out of the plastic trap: saving the Mediterranean from plastic pollution" by the WWF also states that Turkey is the biggest contributor to plastic pollution in the Mediterranean sea, with 144 tonnes of plastic waste ending up in the Mediterranean sea from the shores of Turkey per day.<sup>81</sup> Therefore, it is safe to say that Turkey should start to bring its import of plastic waste under control, and give more importance to the better separation and recycling of its municipal waste. Turkey has pledged to increase its recycling rate from 13% to 35% by 2023 within the framework of the National Waste Management and Action Plan 2023<sup>82</sup>, however, this target is still not sufficient since the OECD average for recycling and composting in 2019 amounted to a higher rate (36%) in 2019.<sup>83</sup>

However, while Turkey has not yet put the Plastic Waste Amendments in force, it has started to put some effort into reducing plastic waste imports. The Ministry of Environment and Urbanisation repealed the Waste Import Implementation Circular No 2019/18 and put the Circular No. 2020/22 into force.<sup>84</sup> Within the scope of the new

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(Depositary Notification), Retrieved in March 2021, from

<https://treaties.un.org/doc/Publication/CN/2020/CN.109.2020-Eng.pdf>

<sup>77</sup> TURKSTAT, Disposal/recovery methods and amount of municipal waste, 1994-2018, Retrieved in March 2021, from <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=30666>

<sup>78</sup> Eurostat, Recycling rate of municipal waste, Retrieved in March 2021, from

[https://ec.europa.eu/eurostat/databrowser/view/t2020\\_rt120/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/t2020_rt120/default/table?lang=en)

<sup>79</sup> TURKSTAT, Disposal/recovery methods and amount of municipal waste, 1994-2018, Retrieved in March 2021, from <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=30666>

<sup>80</sup> Jenna R. Jambeck, Roland Geyer, Chris Wilcox, Theodore R. Siegler, Miriam Perryman, Anthony Andrady, Ramani Narayan, Kara Lavender Law (2015), Plastic waste inputs from land into the ocean, Science, Retrieved in March 2021, from <https://science.sciencemag.org/content/347/6223/768/tab-pdf>

<sup>81</sup> Alessi E. (2018), Out of the plastic trap: saving the Mediterranean from plastic pollution, WWF, [http://awsassets.panda.org/downloads/a4\\_plastics\\_med\\_web\\_08june\\_new.pdf](http://awsassets.panda.org/downloads/a4_plastics_med_web_08june_new.pdf)

<sup>82</sup> Ministry of Environment and Urbanisation (2016), Ulusal Atık Yönetimi ve Eylem Planı 2023, Retrieved in March 2021, from [https://webdosya.csb.gov.tr/db/cygm/haberler/ulusal\\_at-k\\_yonetim--eylem\\_plan--20180328154824.pdf](https://webdosya.csb.gov.tr/db/cygm/haberler/ulusal_at-k_yonetim--eylem_plan--20180328154824.pdf)

<sup>83</sup> OECD (2018), "Municipal waste, generation and treatment", OECD Environment Statistics (database), Retrieved in March 2021

<sup>84</sup> Ministry of Environment and Urbanisation (2020), Atık ithalatı Uygulama Genelgesi, Retrieved in March 2021, from [https://webdosya.csb.gov.tr/db/ced/icerikler/2020\\_22-at-kithalatgenelge-20200907094451.pdf](https://webdosya.csb.gov.tr/db/ced/icerikler/2020_22-at-kithalatgenelge-20200907094451.pdf)



circular, the waste import quota was reduced from 80% to 50% as determined in the previous circular. Thus, companies will now be able to import waste at the rate of maximum 50% of the facility consumption capacity stated in their Capacity Reports. Moreover, identity documents will be prepared for the imported waste. Any waste that has not been issued an identity document will no longer be able to enter Turkey.

Furthermore, the Communiqué on Import Controls of waste for protection of Environment (*Çevrenin Korunması Yönünden Kontrol Altında Tutulan Atıkların İthalat Denetimi Tebliği*), which regulates the operations and procedures regarding the import of the non-hazardous waste, was republished on the Official Gazette on 31 December 2020 with some amendments.<sup>85</sup> In accordance with the new communiqué, the import of mixed plastic scraps and waste printed circuit boards have been banned as of 1 January 2021. This way, Turkey aims at importing only high quality and clean wastes that would provide added value and reducing the dependency to imports by utilising the domestic waste. This puts some assurance that Turkey would not become a dump for the garbage imports.

As an EU candidate, Turkey needs to introduce and implement ambitious waste management regulations in line with the Environment chapter of the EU *acquis* as well. According to the 2020 Turkey Report,<sup>86</sup> Turkey's legal framework on waste management is partially aligned with the new EU *acquis*. The report acknowledges Turkey's progress on its alignment and capacity for sorting, recycling, and the improvement on its economic instruments to promote recycling and waste generation prevention. Furthermore, the report states that work continued to bring waste treatment facilities up to EU *acquis* standards. However, the report also stresses that the economic instruments remain limited and further efforts are necessary to implement waste management plans at national and regional level.

Most importantly, it was recently announced at the Tackling Climate Change Meeting<sup>87</sup> that the Zero Waste Project will become widespread in Turkey in 2023 and that the recycling rate will be increased to 60% in 2035. Moreover, Turkey also aims to put an end to the regular storage and disposal of household waste in 2050. While a more ambitious target, it is still not ambitious enough if Turkey aims to provide added value in plastics sector by utilising its own domestic waste and reducing its dependency on waste import.

## 5. Plastic Consumption After COVID-19

With the emergence of the first COVID-19 case in China on 31 December 2019, the importance of hygiene has once again been reminded across the world, since people might get infected with COVID-19 by touching common surfaces or objects, as well as by close contact. Not surprisingly, this was enough to bring back trends that people have long sought to throw aside. For hygiene purposes, plastics once again emerged as the

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<sup>85</sup> Ministry of Environment and Urbanisation (2021), Atık İthalatı Uygulama Genelgesi Yayınılandı., Retrieved in March 2021, from <https://ced.csb.gov.tr/atik-ithalati-uygulama-genelgesi-yayimlandi.-haber-257645>

<sup>86</sup> European Commission (2020), Turkey 2020 Report, [https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/turkey\\_report\\_2020.pdf](https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/turkey_report_2020.pdf)

<sup>87</sup> Ministry of Environment and Urbanisation (2021), İklim Değişikliğiyle Mücadele Sonuç Bildirgesi, Retrieved in March 2021, from <https://webdosya.csb.gov.tr/db/turkce/faaliyetler/-kl-mdeg--s--kl-g---20210217102133.pdf>



most preferred form of packaging, in spite of the previous debates on banning of single-use plastics. While the use of reusable cups was banned by most companies, the production and consumption of plastic waste increased as restaurants resorted to takeaway practices. The increase in medical waste has also become an issue. To take advantage of this situation, lobbyists in the US argued that the single-use plastic bags are more hygienic than the reusable ones, without any evidence to provide. Similarly, the plastic industry in Europe tried to take advantage of the situation by pushing back against the ban on single-use plastics.<sup>88</sup>

Such a trend can also be observed in Turkey. Plastic production in Turkey increased about 25% in the time of COVID-19.<sup>89</sup> This is pronounced as much higher in specific product categories. Similarly, it can be observed that the plastic bag consumption increased 40-50% in March-May 2020 compared to the same period in 2019. This might stem from the increase in consumption overall.<sup>90</sup>

On the other hand, there is still no evidence that single-use plastics are safer than reusable plastics. For this reason, it is safe to say that the over-use of plastics would not bring any benefit but would actually put the environment in a more difficult situation.

## 6. The Future of Plastics

Due to the current consumption habits and waste management practices, it is predicted that the number of plastics in the seas and oceans will exceed the number of fish in 2050. In line with this scenario, plastics (especially single-use plastics) have the potential to pollute the oceans and enter animal and human food chains and harm the nature.

The global actors have started to act on the plastic waste crisis. Circular economy has now come to fore in many countries, and most notably in the EU, as a new way to create added value and new jobs, and fight against unmanageable wastes. Currently, most countries apply some economic and policy instruments to cope with the mounting amount of plastic waste that can be found in the nature. Furthermore, the hazardous and hard-to-recycle plastic wastes can no longer be exported to developing countries.

A recent UNEP report entitled “Addressing Single-Use Plastic Products Pollution – Using a Life Cycle Approach”,<sup>91</sup> sets forth some recommendations on single-use plastic products and their alternatives:

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<sup>88</sup> Scaraboto D, Joubert A. M. and Gonzalez-Arcos C. (2020), Single-use plastic in the pandemic: how to stay safe and sustainable, World Economic Forum in collaboration with The Conversation, Retrieved in March 2021, from <https://www.weforum.org/agenda/2020/04/plastic-packaging-coronavirus-crisis/>

<sup>89</sup> PAGEV (2020), Turkey: Coronavirus increases the use of plastic bags, Retrieved in March 2021, from <https://www.pagev.org/turkey-coronavirus-increases-the-use-of-plastic-bags-5e9e9fd4cde4a>

<sup>90</sup> Yeşilyurt E. F. (2020), Koronavirüs sürecinde plastik poşet kullanımı arttı, Anadolu Agency, Retrieved in March 2021, from <https://www.aa.com.tr/tr/ekonomi/-koronavirus-surecinde-plastik-poset-kullanimi-artti/1851297>

<sup>91</sup> UNEP (2021), Addressing Single-use Plastic Products Pollution Using a Life Cycle Approach, Nairobi, Retrieved in March 2021, from <https://wedocs.unep.org/bitstream/handle/20.500.11822/35109/ASUP.pdf?sequence=3&isAllowed=y>



- ▲ Promote reusable products;
- ▲ Use Life Cycle Approach (LCA) and a range of robust and information sources;
- ▲ Know your context by being geographically and socially specific to the location to which the policy will apply;
- ▲ Since production is a significant contributor to the environmental footprint of single-use plastic products and their alternatives, consider opportunities to avoid and reduce negative environmental impacts within production and save impacts from production by reducing consumption of these products;
- ▲ Assess each product material by considering the most feasible end-of-life option;
- ▲ Promote product design for circularity, including reuse;
- ▲ Recognise trade-offs in policy decision-making and minimise them and reduce burden-shifting;
- ▲ Factor in future technology innovation and change, as well as scale up potential;
- ▲ Reduce the use of single-use products whatever the material.

Despite the recent improvements in policies and export restrictions regarding plastic waste, the future of plastics seems uncertain as yet. Hence, the governments worldwide should work on developing and strictly enforcing new policy and economic measures against the increasing plastic waste as soon as possible.

Lastly, as an EU accession country and the major contributor to the plastic waste in Mediterranean Sea, Turkey has started to implement more stringent plastic waste policies; however, it still has a room to improve. Hence, Turkey should firstly focus on increasing its capacity for collecting, sorting, and recycling of its plastic waste rather than importing plastic waste from other countries' plastic waste. This would decrease the import dependency for plastic waste in Turkey and would also make it easier to address the unmanageable waste pollution. This would, overall, result in a healthier and cleaner environment for the citizens and also benefit the tourism sector in the long run. For this to happen, Turkey should introduce more ambitious strategies with a sooner deadline.

