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ABBREVIATIONS

BeMed	: Beyond Plastic Med
CSO	: Civil Society Organization
CSR	: Corporate Social Responsibility
EMECS	: Developing Networks on the Environmental Management of Enclosed Coastal Seas
IMO	: International Maritime Organization
EBSAs	: Ecologically or Biologically Significant Marine Areas
EU	: European Union
GPML	: Global Partnership on Marine Litter
IMAP	: Integrated Monitoring and Assessment Program
MAP	: The Mediterranean Action Plan
MARLISCO	: Marine Litter in Europe Seas: Social Awareness and Co-Responsibility
MARPOL	: International Convention for the Prevention of Pollution from Ships
MEDCOAST	: Mediterranean Coastal Foundation
MEDPOL	: The Program for the Assessment and Control of Marine Pollution in the Mediterranean
MoEU	: Ministry of Environment and Urbanization
MSFD	: Marine Strategy Framework Directive
NBSAP	: National Biodiversity Strategies and Action Plans
NDPs	: National Development Plans
NGOs	: Non-Governmental Organizations
REMPEC	: Regional Marine Pollution Emergency Response Centre for Mediterranean Sea
SDGs	: Sustainable Development Goals
TL	: Turkish Lira
TOFD	: The Spinal Cord Paralytics Association of Turkey
TUBITAK-MAM	: The Scientific and Technological Research Council of Turkey-Marmara Research Center
TUDAV	: Turkish Marine Research Foundation

TURMEPA	:	Turkish Marine Environment Protection Association
TUSIAD	:	Turkish Industry and Business Association
UN	:	United Nations
UNEP	:	United Nations Environment Program
UNDP	:	United Nations Development Program
UN SDSN	:	UN Sustainable Development Solutions Network
WTO	:	World Trade Organization
VNR	:	Voluntary National Review

I. DOMESTIC ENVIRONMENTAL AND WASTE MANAGEMENT LAW

A) INTRODUCTION

As is evident globally, rapid urbanization and population growth in parallel with technological developments and industrialization are increasing pressure on human activities on the environment in Turkey. While the growth in production and marketing during this process made the excessive use of natural resources inevitable, wastes produced due to the increasing trend of consumption have reached threatening levels due to their quantity and hazardous contents. On this account, in parallel with the environmental consciousness rising all over the world, the protection of the environment has become one of major priority policies of most countries, with waste management becoming a foremost field among environmental protection policies of all countries. Aiming to prevent the rapid consumption of natural resources and to settle the problem of wastes resulting from production, marketing and consumption activities through their conversion into economic assets, waste management strategies form the basis of “sustainable development” approaches that have been gradually adopted all over the world as a prioritized policy objective.

In Turkey, waste management has been the subject of a number of legislative provisions starting from the 1930s. Since then, the number of institutions assuming roles in the environmental field has increased. Development of a waste management system should have a prominent place among national environmental policies and sustainable development strategies. In Turkey, this field is included in the prioritized policies and arrangements, with plans and projects prepared with a view to strengthening the waste management capacity that have been materialized.

Although the development of a waste management strategy and strengthening its implementation capacity require high costs, it should be borne in mind that the cost of non-investment in this field would be higher. Where effective waste minimization and recycling cannot be ensured, the resulting waste mountains shall threaten the environment and human health. This shall in turn exhaust the means of life in the environment by putting pressure on the recycling capacity of the environment.

Likewise, if such investments were not made, the establishment of new and more distant storage areas in place of rapidly shrinking ones would be necessary. The investment in the rehabilitation of old storage areas, which are gradually left inside the urbanized settlement areas, the increase in the costs of the construction and operation of the new ones and of the shipment of wastes shall require higher costs than the cost of the investments to the environmental-friendly technologies, recycling activities, etc.

Furthermore, the indirect costs, such as the effects of air, earth and water pollution on human health, should be taken into consideration. Strengthening waste management is of vital importance to ensure the sustainable use of natural resources as well as the protection of the environment and human health as a fundamental factor to ensure a better quality of life for present and future generations.

For this reason, first public and private organizations, and then all parts of society, should sacrifice their lifestyles to avoid creating mountains of waste overwhelming the environment and to establish a waste management system suitable for Turkey. With respect to the Turkish legal structure on waste management, it is quite new and still ever developing when compared with other countries in western Europe. Gradually legal system, executive mechanisms and strategies have been created by authorized ministries as primarily Ministry of Environment and Urbanization (MoEU) and Ministry of Agriculture and Forestry.

There are a number of provisions for the protection and improvement of environment in the Constitution and in many other regulations. The number of such provisions is increasing as is the importance attached to environmental issues. Legal regulations and other national plans and programs form a sound basis for a waste management strategy and several strategy papers establishing the objectives, main principles and policies of waste management and tools necessary to achieve these have been prepared.

National legislation and development plans, international commitments and EU Directives, the requirements of which Turkey has to fulfill within the context of the harmonization process with the EU, require the preparation and implementation of strategies and plans on the local, national and regional levels.

Several institutions and organizations have authority and responsibilities in the field of waste management, which renders cooperation and coordination among them important. In practice, there is increasing need for more coordinated cooperation among institutions and organizations, especially the municipalities, responsible for providing technical and financial support, monitoring and follow-up, issuing permits and licenses and ensuring coordination in the field of waste management.

At the core of solving problems related to waste management, there exists an increase in the institutional and technical capacity of the institutions and organizations responsible. MoEU has increased the institutional structure and implementation capacity to suffice.

An important aspect with regard to waste management is that the will to implement has been demonstrated. If environmental culture and awareness in the public becomes prevalent, all legal regulations and mechanisms will be able to take effect and remediate national, regional and international environmental concerns.

Turkish environmental and waste management law, respective international and regional conventions, treaties which Turkey is a party to, and the programs, strategies, policies and their implementation capacity in national law is summarized below. Also, an analyses of the domestic environmental and waste management law and their legal practice and analysis of models of corporate social responsibility (CSR) of companies are included as well. The English translations of the national documents have been referenced as much as possible. If there is no formal translation, the Turkish versions have been referenced.

B) CONSTITUTIONAL LAW

According to Article 56 of the Constitution of the Republic of Turkey, it is the duty of the State and its citizens to improve the environment, protect environmental health and prevent environmental pollution. This article of the constitution explicitly demonstrates that environmental rights and obligations are mentioned in the constitution¹.

The article indicates that right to live can only be satisfied in a healthy and balanced environment. The Constitution included this right under the provision on “Economic and

¹ Constitution of the Republic of the Turkey, 2018, accessed 20/11/2020 <https://global.tbmm.gov.tr/docs/constitution_en.pdf>

Social Rights and Obligations”. According to Article 61 of the Constitution, rights regulated under this section can be achieved according to the economic stability and availability of financial resources².

The right to a healthy environment is an extension of the right to life. This right includes living in a healthy and balanced environment through protection of a healthy environment.

Citizens have the right to live in a balanced and healthy environment but are also obliged to protect, preserve and improve such an environment. Everyone has the right to sustain their lives in such an environment. However, everyone is also obliged not to harm the environment.

In this respect, beneficiaries of the right to a healthy environment are not only the current human generation but also other living beings and future generations. In order for this right to be achieved efficiently, the right to demand information and to participate in decision-making processes are essential and are achieved by regulations in Environment Legislation in Turkey.

C) ORDINARY LAWS

1- Overview of Turkey’s Environmental Legislation

There are several provisions regarding environmental issues in Turkey’s legislation including constitutional provision, codes and regulations. This Part broadly explains this legislation.

a) Turkish Criminal Code (Code Nr. 5237)

Article 181 of the Turkish Criminal Code provides that any person who deliberately dumps waste into the soil, water or air in violation of the technical procedures determined by the applicable law, in a way to harm the environment, commits an offence punishable with six months to two years’ imprisonment. Any person who imports waste into the country without permission may be punished with one to three years’ imprisonment.

² *ibid*

Pursuant to this article, if the waste or residues makes permanent changes to the characteristics in the soil, water or air, the penalty is doubled³.

In the event that the prohibited acts are committed with waste that may cause diseases that are difficult to treat for humans or animals, impairment of reproductive ability or change the natural characteristics of animals or plants, the offender is liable to imprisonment for a period of not less than five years. Security precautions to legal entities may also be imposed pursuant to acts prohibited by this Article⁴.

According to Article 182 of the Criminal Code, any person who, by negligence causes waste to be discharged into the soil, water or air in a way that harms the environment, is liable to punishment with a judicial fine. If such waste or residue leaves has a permanent effect on the soil, water or air, a prison sentence of two months to one year is imposed. Any person who causes the emergence of diseases that are difficult to treat in terms of humans or animals, the impairment of the reproductive ability, or the negligence of waste or wastes that may cause the natural characteristics of animals or plants to change, can be sentenced to imprisonment of one to five years.

³ Turkish Criminal Code, 2004/5237, accessed 16/11/2020 <<http://www.lawsturkey.com/law/criminal-code-law-of-turkey-5237>>

⁴ *ibid*

b) Environmental Law of Turkey (Nr. 2872)

The Environmental Law of Turkey provides that the purpose of this law is to protect the environment, which is a common resource of all living things, in line with the principles of sustainable environment and sustainable development. It defined domestic solid waste as solid waste from places such as residences, industry, workplaces, and picnic areas that are not included within the scope of hazardous waste⁵.

According to Article 11 of the Environmental Law, metropolitan municipalities and municipalities are obliged to establish and/or operate domestic solid waste disposal facilities. Institutions and organizations that carry out the transportation and collection of domestic wastes are registered by the MoEU. The article also provides that coastal facilities such as ports, shipyards, ship maintenance and repair, ship dismantling, and marinas are obliged to carry out operations with facilities suitable for the collection, storage, transportation and disposal of oil, oily solid wastes and liquid wastes such as bilge, dirty ballast, sludge, slop and domestic wastewater and solid wastes in their own facilities and ships and other marine vessels. The procedures and principles regarding this are determined by a regulation to be issued by the MoEU⁶.

This Environmental Law also contains certain administrative and criminal penalties. According to Article 20, contrary to the prohibitions and restrictions enumerated in the law, marine vessels that discharge solid waste or discharge domestic wastewater in the seas under the sovereignty of the country, in maritime zones subject to national jurisdiction and in waters associated with them, as well as natural or artificial lakes, dam lakes and rivers, are given administrative fines.

Administrative fines specified in the Code 2872 are increased by one-fold in the first repetition within three years after the actions incurring these penalties, and doubled in the second and subsequent repetitions. The authority to make decisions about administrative sanction stipulated in this law belongs to the MoEU. This authority may also be used by

⁵ Environmental Law, 1983/2872, accessed 16/11/2020 <<http://www.lawsturkey.com/law/environment-law-2872>>

⁶ *ibid*

institutions and authorities to which the audit authority has been transferred in accordance with the first paragraph of Article 12⁷.

The Code 2862 provides for penalties in Article 26. According to that article, those who provide false and misleading information in violation of the notification and information obligation stipulated in Article 12 of this law, are subject to imprisonment of six months to one year. In the application of this law, the provisions of the Turkish Criminal Code (5237) regarding the crime of forgery of documents shall be applicable to those who issue and use false and misleading documents. According to this article, the environmental impact assessment process stops until final judgment in any dispute regarding the environmental impact assessment submitted to the judiciary. Administrative penalties to be imposed on the acts contained in the law is in addition to other penalties in other laws on these actions⁸.

The Code 2862 also contains a provision in Supplementary Article 13. According to this article, plastic bags are provided to the user or the consumer at sales points for a fee in order to manage the resources efficiently and to prevent environmental pollution caused by plastic bags. The base fee of not less than “25 *kurus*” to be applied will be determined by a Commission to be formed by the MoEU and is updated every year. The procedures and principles regarding the arrangements in this article are determined by the MoEU⁹.

According to Article 4 of the law, municipalities that had not established wastewater treatment and domestic solid waste disposal facilities, organized industrial zones, other industrial establishments and settlements that are currently in operation but had not established a wastewater treatment plant, were to prepare work term plans for the establishment of these facilities to the MoEU with a year from the effective date of the Law.

According to Article 14 of the *Law of Municipalities* (5393), municipalities are responsible for providing all services regarding the collection, transportation, separation,

⁷ *ibid*

⁸ *ibid*

⁹ *ibid*. The “25 *kurus*” coin from Turkey is the equivalent of 0.25 Turkish lira (equivalent to 0.028 Euro)

recycling, disposal and storage of municipal waste, or to appoint others to provide these services. They are also responsible for preparing waste management plans¹⁰.

According to Article 7 of the *Law of Metropolitan Municipalities* (5216), metropolitan municipalities are also responsible for implementing waste management plans to ensure that wastes are collected at the source, recycled, reused, or stored and removed as appropriate. They have to establish appropriate facilities, or to make sure that they are established by others, so that these services can be provided¹¹.

2- Regulation on the Control of Packaging Waste (Official Gazette Number 30283, 27 December 2017)

The regulation basically establishes the basic conditions and features for producing the packages with environmental criteria. It also, provides prevention measures to reduce packaging waste, recycling and recovery methods as well as establishing technical and administrative standards regarding the collection, transportation, separation and recycling of packaging wastes under a specific management system. Article 5 of the *Regulation on Control of Packaging Wastes*, regulates the general principles regarding packaging wastes. According to that article, it is essential to reduce the use of plastic bags throughout the country so plastic bags may not be supplied to the consumer free of charge at sales points. Article 9 of the Regulation specifies the responsibilities of packaging manufacturers to conserve natural resources / raw materials and encourage recycling, such as producing packaging from recycled materials¹².

This regulation is substantially compatible with *EU Directive* 96/62. The MoEU is responsible for establishing requirements which are indicated by this EU Directive. The regulation contains administrative sanctions by referring to the *Environmental Law*, *Law of Misdemeanors*, *Law of Metropolitan Municipalities*, *Law of Municipalities* and other

¹⁰ Municipality Law, 2005/5393, accessed 20/11/2020 <<http://www.lawsturkey.com/law/municipality-law-5393>>

¹¹ Law of Metropolitan Municipalities, 2004/5216, accessed 20/11/2020 <<http://www.lawsturkey.com/law/law-on-metropolitan-municipalities-5216>>

¹² Regulation On the Control Of Packaging Waste, 2017, accessed 18/12/2020, <<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=24223&MevzuatTur=7&MevzuatTertip=5>>

relevant regulations. It should be noted that, the regulation does not specifically address “plastic” packaging; it is a general regulation to tackle the overall packaging.

Article 14 of the regulation specifies the responsibilities of sales points to reduce the usage of plastic bags. Article 25 of the Regulation specifies the packaging waste collection system. Article 35 of the Regulation specifies that administrative sanctions stipulated in Law No. 2872, Law No. 5326, Law No. 5216, Law No. 5393 and other relevant legislation are also imposed on those who act against the provisions of this regulation¹³.

3- Regulation on Recovery Participation Share (Official Gazette Number 30995, 31 December 2019)

The *Regulation on Recovery Participation Share* regulates main characteristics of determination, declaration, collection and monitoring of the recycling participation shares to be collected.

According to Article 6, those who supply the products covered by this Regulation to the domestic market are obliged to comply with the procedures and principles determined by the MoEU regarding the characteristics, fees, sales, declaration, recycling contribution share collection of plastic bags, as well as monitoring, control and inspection procedures¹⁴.

Article 14 provides that sanctions may also be imposed on those who act in violation of the provisions of this regulation for the acts stipulated in the Law No. 2872. Administrative penalties to be imposed on the acts in this law will not prevent the implementation of penalties written in other laws for these actions.

¹³ Mondaq, 2018, “Turkey: Turkey To Ban Free Plastic Bags From Start Of 2019”, accessed 18/12/2020, <<https://www.mondaq.com/turkey/waste-management/665198/turkey-to-ban-free-plastic-bags-from-start-of-2019>>

¹⁴ Regulation on Recovery Participation Share, 2019, accessed 18/12/2020, <<https://www.resmigazete.gov.tr/eskiler/2019/12/20191231M4-4.htm>>

4- Regulation on Waste Management (Official Gazette Number 29314, 02 April 2015)

The *Regulation on Waste Management* seeks to ensure the management of waste from generation to disposal without harming the environment and human health, reduction of the use of natural resources and ensuring waste management through ways such as reduction of waste generation, reuse, recycling and recovery of waste and produce and market surveillance and inspection of products that meet certain criteria, basic conditions and features in terms of environment and human health. The MoEU is under the duty of making 5-year national waste management plan including waste management structure, waste legislation and analysis of waste management¹⁵.

There are certain provisions regarding the obligations of waste producers such as collecting their waste separately and storing them temporarily. Extended manufacturer's liability is regulated in this regulation. According to Article 18, necessary measures should be taken by the manufacturer, starting from the design of the products, in order to reduce the negative effects of the products on the environment, prevent waste, reuse after waste, safely recycle or support recovery¹⁶.

The Regulation also specifies reuse of products. Article 21 of the Regulation regulates import of waste and other details. Article 23 of the Regulation regulates export and transit of wastes. Article 24 of the Regulation regulates compliance with EU. This regulation takes into account the *Directive of the European Parliament and the Council* No. 2008/98/EC, dated 19/11/2008, on wastes and the *Commission Decision* No. 2000/532 / EC, dated 3/5/2000, on the establishment of the waste lists, prepared within the framework of harmonization with the European Union legislation¹⁷. Article 25 of the Regulation deals with administrative sanctions. According to this article, sanctions stipulated in the *Environment Law of Turkey* (2872) are applied to those who act against the provisions of this regulation.

¹⁵ Regulation on Waste Management, 2015, accessed 18/12/2020 <<https://www.ecolex.org/details/legislation/regulation-on-waste-management-lex-faoc153405/>>

¹⁶ *ibid*

¹⁷ *ibid*

5- Regulation on the Regular Storage of Wastes (Official Gazette Number 27533, 26 March 2010)

This regulation covers the technical principles regarding sanitary landfill facilities, the procedures and principles regarding acceptance of wastes into the landfills, the regular storage of the wastes, the measures to be taken, the inspections to be carried out and the responsibilities to be subject¹⁸.

The regulation classifies landfill facilities. Article 32 of the regulation, which deals with administrative sanctions, states that the relevant articles of the Environmental Law are to apply to those who act in violation of this regulation.

The regulation concerning general provisions regarding landfill and landfill facilities regulates the terms and conditions regarding the licensing, construction of the sanitary landfill facilities, operation of the sanitary landfill facilities and waste acceptance criteria, and the control and monitoring processes during and after the operation. In various and final provisions in the seventh part of the regulation, wastes requiring special consideration, improvement of inappropriate dump sites and administrative sanctions are also mentioned.

6- Zero Waste Regulation (Official Gazette Number 30829, 12 July 2019)

The *Zero Waste Regulation* was prepared on the basis of Environmental Law (2872). It regulates the important principles and procedures of a zero waste management system to be established in many enterprises and industrial plants as well as local administrations and public institutions. This regulation mainly covers the principles regarding the establishment and monitoring of a zero-waste management system and issuing a zero-waste certificate for local administrations and other places.

The purpose of the regulation is to establish, disseminate, develop, monitor, finance, and record a zero-waste management system that aims to protect the environment and human health -- all resources in waste management processes in line with the principles of sustainable development and effective management of raw materials and natural

¹⁸ Turkish Packaging Manufacturers Association (ASD), accessed 20/11/2020 <<https://ambalaj.org.tr/en/information-center-regulations-waste-management-in-turkey>>

resources (Yıldız, 2019). It regulates the principles and procedures concerning the establishment of a "zero waste management system" and "zero waste certificate" to be issued for places where the establishment of a zero waste management system is mandatory and for those who wish to establish a zero waste management system on a voluntary basis.

The regulation obliges buildings and premises which establish a zero waste management system to comply with the general principles specified in the regulation, to sort and accumulate waste by their types, prevent/reduce waste generation, comply with the implementation schedule specified in the annexes of the regulation for the establishment and implementation of the zero waste management system, provide training on zero waste management system, register in the 'zero waste information system' created by the MoEU and issue the required information and documents to the system (Yıldız, 2019).

Within the scope of a zero waste management system, non-hazardous recyclable paper, glass, metal, plastic wastes originating from homes or commercial, industrial enterprises and institutions that are similar in content or structure are collected with different collection equipment and stored separately from other wastes. Paper, glass, metal and plastic wastes can be collected in a single system, with separate collection according to material types. A zero waste coordination board is regulated.

Article 21 of the regulation deals with administrative sanctions. According to the article, for work and transactions carried out within the scope of this regulation, in the Law No. 2872, Law of *Metropolitan Municipalities* No. 5216, dated 10/7/2004; Law of *Municipalities* No. 5393, dated 3/7/2005; and Law No. 5326, dated 30/3/2005, Administrative sanctions are imposed by the competent authorities in the event that acts prescribed as administrative sanctions in the *Code of Misdemeanors*¹⁹ and other relevant legislation are detected.

¹⁹ Code of Misdemeanors, 2005/5326, accessed 18/12/2020, <<https://www.mevzuat.gov.tr/MevzuatMetin/1.5.5326.pdf>>

7- Regulation on Reception of Waste from Ships and Waste Management (Official Gazette Number 25682, 24 December 2004)

This regulation basically aims to adopt the requirements of the International Convention for the Prevention of Pollution from Ships into Turkish law.²⁰ The purpose of this regulation is to provide for Turkish jurisdiction for the prevention of wastes produced by ships, longer administration of the sea, and the protection of the marine environment by ensuring the establishment of waste reception facilities by the responsible and operation of waste collection ship and to specify the rules²¹.

This regulation concerns ships found in areas of Turkey's maritime jurisdiction and include waste reception facilities needed in these areas, in the ports, and waste reception ships. In order to prevent marine pollution, it is forbidden to release wastes from ships directly and/or indirectly into the marine environment in a way that harms the environment.

Liabilities of ship operators navigating within Turkey's territorial waters, liabilities of port authorities and obligations of ships have been defined. City lines, sea buses, passenger engines equipping or operators traveling within our territorial waters are required to make an agreement with waste reception facilities to collect the wastes arising from the ships in question and defined in this regulation.

Article 28 of the regulation deals with administrative sanctions. According to that article, in case of violation of the provisions of this regulation, the relevant administrative and penal provisions of the Environment Law apply.

²⁰ Turkey ratified the International Convention for the Prevention of Pollution from Ships on 24 June 1990 (herein after MARPOL 73/78).

²¹ Regulation on Reception of Waste from Ships and Waste Management, 2009, accessed 18/12/2020 <<https://www.ecolex.org/details/legislation/regulation-on-reception-of-waste-from-ships-and-waste-management-lex-faoc165270/?type=legislation&xcountry=Turkey&xsubjects=Environment+gen.&q=waste>>

8- Regulation on Water Pollution Control (Official Gazette Number 25687, 31 December 2004)

The purpose of this Regulation is to determine the legal and technical principles required to prevent water pollution in line with sustainable development goals in order to protect the country's underground and surface water resources and to ensure their best use²².

This regulation covers the quality, classification and usage of water environments, planning principles and prohibitions regarding the protection of water quality, principles of wastewater discharge and principles of discharge permit, principles regarding wastewater infrastructure facilities, and procedures for monitoring and inspection and principles to prevent water pollution. Prohibition of marine pollution and principles of direct discharge to the receiving environment are controlled by this regulation. In accordance with these principles, it is prohibited to discharge all kinds of solid wastes and residues, treatment sludge and septic tank sludge into receiving water environments and controlling the quality and quantity of wastewater, reducing and treating the pollution, observing and documenting whether the given wastewater discharge standards are regularly complied with at appropriate intervals are the responsibility and liability of the polluter²³.

Measures that can be taken to reduce the amount of wastewater and its damage, generally accepted as applicable for wastewater treatment, are defined in the Regulation. When choosing wastewater treatment methods, necessary measures are to be taken in order not to cause environmental problems such as air pollution outside the receiving environment, soil pollution and solid residues²⁴.

9- Regulation Regarding Procedures and Principles to be Followed in Determining the Tariffs of Wastewater Infrastructure and Domestic Solid Waste Disposal Plants (Official Gazette Number 27742, 27 October 2010)

²² Regulation on Water Pollution Control, 2004, accessed 18/12/2020, <https://www.ecolex.org/details/legislation/regulation-on-water-pollution-control-lex-faoc089033/?q=water+pollution&type=legislation&xsubjects=Environment+gen.&xcountry=Turkey&xdate_min=&xdate_max=>

²³ *ibid*

²⁴ *ibid*

The purpose of this regulation is to ensure establishment, maintenance, repair, operation, closure and monitoring of wastewater infrastructure facilities and domestic solid waste disposal facilities; full cost-based tariffs that can cover all services provided for these facilities; and the sustainability of environmental infrastructure services through wastewater infrastructure management, determination, adjustment and implementation by metropolitan municipalities and municipalities.

This regulation covers the procedures and principles to be followed in determining the full cost-based tariffs for investments regarding the collection, treatment, discharge or recovery and rehabilitation of urban or industrial wastewater; operation, maintenance and repair of wastewater systems; treatment sludge disposal or recovery and establishing, operating, closing and post-closure monitoring and maintenance of collection, transportation, transfer, recovery (compost, incineration) and disposal facilities for domestic solid wastes²⁵.

D) LEGAL AND POLITICAL OBLIGATIONS BASED ON INTERNATIONAL AND REGIONAL INSTRUMENTS

1- Overview of International Instruments

In this section of the Project, the following international conventions to which Turkey is a party, will be examined:

- Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) ratified by Turkey in 2002.
- Convention on Biological Diversity, ratified by Turkey in 1996.
- United Nations Framework Convention on Climate Change, ratified by Turkey in 2004.
- Cartagena Protocol on Biosafety to the Convention on Biological Diversity, ratified by Turkey in 2004.

²⁵ *ibid*

- Convention on the Protection of the Black Sea against Pollution and Protocols (Bucharest Convention), ratified by Turkey in 1994.
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, ratified by Turkey in 2004.

These conventions aim to prevent pollution caused by waste by recognizing the threat posed by pollution to the marine environment, the ecological balance of the sea, its resources and legitimate use. In this regard, the contracting parties are obliged to prevent pollution from different sources. Detailed examination of these conventions from Turkey's perspective are contained below. However, before this examination, it would be appropriate to emphasize that not all these conventions specifically regulate plastic waste. They only refer to waste and pollution in general.

2- International Conventions

a) The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention).

This convention can be referred to as a primary international convention in this context, referring to different aspects. First, the Mediterranean Sea and pollution are defined. Then the obligations for the Contracting States are listed – this is namely that the Contracting Parties shall take all appropriate measures to prevent, abate, combat and, to the fullest possible extent, eliminate pollution of the Mediterranean Sea Area resulting from different sources on the basis of the precautionary principle and the polluter pays principle. These principles are associated with waste management. Therefore, member states are required to take all measures to combat pollution. Monitoring, scientific and technological cooperation, public information and participation are other obligations of member states. Turkey ratified this convention and its protocols in 2002 (Official Gazette, 2002). The contracting parties are under obligation to adopt legislation implementing the convention and the protocols. However, the protocols regulate this concept more broadly. The protocols of the convention to which Turkey is a party, are as follows:

i. Protocol for the Prevention and Elimination of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea.

Turkey ratified the protocol in 2002 (Official Gazette, 2002). Article 4 of this protocol prohibited the dumping of marine litter and plastic waste. Each party was to designate competent authorities to keep records of the nature and quantities of any waste or other matter permitted to be dumped, along with the location, date and method of dumping. Although there is no clear reference to plastic waste in this protocol, marine litter inherently includes the plastic problem.

ii. Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources and Activities

Turkey ratified the protocol in 2002 (Official Gazette, 2002). This protocol and the convention regulate pollution arising from land-based sources. In this regard, Article 8 of the convention makes a reference to the contamination that occurs directly from discharges into the sea or through coastal disposal, and indirectly through rivers, canals or other watercourses, including underground watercourses, or through run-off. Furthermore, Article 4 of the protocol also regulates and extends its scope (Article 6). In this regard, parties are obligated to create an authorization system, thereby creating opportunities to establish appropriate sanctions in case of non-fulfillment of their obligations. This article allows states to regulate the pollution in their national law.

The protocol is designed to protect the Mediterranean against the dangers of land-based pollution posed by the rapidly increasing human and tourism-related coastal population increases and consequently land-based pollution to human health and the marine environment in the Mediterranean region, especially in the areas of industrialization and urbanization. The relevant annexes (especially Annex I and Annex II) are roadmaps for the parties to fulfill their obligations. The protocol, together with Annex IV, has also introduced some criteria for best available techniques and best environmental protection. The protocol has detailed arrangements in its annexes regarding the liabilities of the parties regarding pollution originating from land-based sources. Administrative or criminal sanctions are exposed to the jurisdiction of contracting parties.

iii. Protocol Concerning Specially Protected Areas and Biological Diversity
in the Mediterranean

Turkey ratified the protocol in 2002 (Official Gazette, 2002). Article 6 of this convention established some measures to protect specially protected areas for waste management. It provides that dumping or discharge of wastes and other substances likely directly or indirectly to impair integrity of these areas are prohibited.

iv. Protocol Concerning Cooperation in Preventing Pollution from Ships
and, in Cases of Emergency, Combating Pollution of the Mediterranean
Sea

Turkey ratified the protocol in 2003 (Official Gazette, 2003). This protocol does not directly address the plastic waste or waste management.

v. Protocol on the Prevention of Pollution of the Mediterranean Sea by
Transboundary Movements of Hazardous Wastes and Their Disposal

This protocol was ratified by Turkey in 2004 with a declaration to remind other states of Turkey's position as a non-party to United Nations Convention on the Law of the Sea (Affairs, 2020) (Official Gazette , 2004). This protocol has a wide scope of application in terms of wastes and hazardous materials. Article 3 of the protocol regulates the scope, and the Article 4 provides that each party is obliged to inform the Organization for Economic Co-operation and Development (OECD) about wastes that they regulate as exclusively hazardous within their national law. Article 9(2) provides that each party has an obligation to enact appropriate national legislation to prevent and punish illegal traffic in waste, including criminal penalties for all persons involved in such illegal activities. In conclusion, Turkey has been participating in the Conference of Parties, and is expected to host the 22nd *Conference of Parties to the Barcelona Convention* in late 2021 (Affairs, 2020).

*b) Convention on the Protection of the Black Sea against Pollution (Bucharest
Convention, 21 April 1992*

In 1994 Turkey became a party to the *Convention on the Protection of the Black Sea against Pollution* (Bucharest Convention, 21 April 1992)(Official Gazette, 1994). Article V of the Convention establishes the general obligation for parties and provides that each contracting party, in order to achieve the purposes of this convention, shall bear in mind the adverse effect of pollution within its internal waters on the marine environment of the Black Sea. This article has an important role because, not only the states but also European rivers that flow into the Black Sea, contaminate the Black Sea. In this regard, the contracting parties have to individually or jointly take, as appropriate, all necessary measures consistent with international law and in accordance with the provisions of this convention to prevent, reduce and control pollution in order to protect and preserve the marine environment of the Black Sea. Thus, the contracting parties are obliged to prevent pollution of the marine environment of the Black Sea from any source by substances or matter specified in the Annex to this Convention (Article 6).

Article XVII of the convention provides for the establishment of the *Commission on the Protection of the Black Sea against Pollution* (Black Sea Commission) and a Permanent Secretariat. Since December 2000, Turkey has been hosting the Secretariat of the Black Sea Commission in Istanbul (Affairs, 2020). The Protocols of the Bucharest Convention, to which Turkey is a party, are listed below:

- Protocol on Protection of the Black Sea Marine Environment against Pollution from Land Based Sources.
- Protocol on Cooperation in Combating Pollution of the Black Sea Marine Environment by Oil and Other Harmful Substances.
- Protocol on the Protection of the Black Sea Marine Environment against Pollution by Dumping.
- The Black Sea Biodiversity and Landscape Conservation Protocol.

c) The Convention on Biological Diversity

Another convention that Turkey is a party to is the Convention on Biological Diversity. Turkey ratified this convention in 1996 (Official Gazette, 1996). This convention imposes responsibility on states to identify processes and categories of activities which have, or are likely to have, significant adverse impact on the conservation and sustainable use of

biological diversity and monitor their effects through sampling and other techniques (Article 7). Article 14 addresses marine litter and plastic waste. Since biodiversity is one of the descriptors of the marine environment, even though plastic waste is not particularly addressed, it can be interpreted as to include the problem of plastic waste. The protocol requires the state parties to protect, preserve, improve and manage, in a sustainable and environmentally sound way, areas of particular biological or landscape value, notably by the establishment of protected areas. In this framework, parties should prepare action plans and strategies to perform those obligations. In this regard, Turkey prepared the *National Biological Diversity Strategy and Action Plan* (NBSAP) in 2001, revised in 2007.²⁶

d) The United Nations Framework Convention on Climate Change

Turkey ratified the *United Nations Framework Convention on Climate Change* in 2003 (Official Gazette, 2003). Although this Convention is generally about climate change, it however, refers to waste management in Article 4:

“All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

(c) Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol in all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors;

(d) Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal

²⁶ The National Strategy and Action Plan For Biodiversity in Turkey, 2001, (*accessed in 20/12/ 2020*) <<https://www.cbd.int/doc/nbsap/nbsapcbw-eur-02/nbsapcbw-eur-02-tr-01-en.pdf>

Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems...”

e) The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal entered into force in 1994 in Turkey (Official Gazette, 1994). On the basis of the convention, a *National Hazardous Waste Management Regulation* was prepared and published in the Official Gazette on 27 August 1995. Even though plastic waste was not included within the scope of this Convention when first signed, during the Basel Conference of the Parties in 2019, member states amended the Basel Convention to include plastic waste, especially the marine plastic litter, in a legally-binding framework which will make global trade in plastic waste more transparent and better regulated (UN, 2020). Turkey has also ratified this amendment.

3- EU Directives

Due to its EU candidate status, Turkey aims to adapt its national law to the objectives of the various EU Directives and take into consideration the applicable EU laws. For instance, within the scope of the waste framework, Directive 2008/98, the regulation made under Waste Management (*Atık Yönetimi Genel Esaslarına İlişkin Yönetmelik*) entered into force following publication in the Official Gazette on 2 April 2015 (Gazette, 2015). Regarding EU Directive 94/62, Turkey implemented it with the *Regulation on Packaging Waste Control (Ambalaj Atıklarının Kontrolü Yönetmeliği)* in 2011.

Furthermore, to implement the *EU Water Framework Directive 2000/60*, Turkey has promulgated a number regulations such as *The Regulation on Protection of Water Basins and Preparation of Management Plans (Su Havzalarının Korunması ve Yönetim Planlarının Hazırlanması Hakkında Yönetmelik)*, which entered into force in 2011, and the *Regulation on the Quality of Surface Water (Yüzeysel Su Kalitesi Yönetimi Yönetmeliği)*, which entered into force in 2012.

However, due to some reservations, Turkey has not signed the Aarhus Convention,. Thus, EU Directive 2003/4/EC, implementing the Aarhus Convention, is not fully applicable in

Turkey. Although accession to the EU Directive is through ratification of the Aarhus Convention, the current state of national regulations and policy suggests Turkey's ratification of this Convention is not on the agenda. However, there are some domestic regulations on the "Access to Environmental Information". First, Article 56 of the Turkish Constitution provides that: "Everyone has the right to live in a healthy and balanced environment".

It is the duty of the state and its citizens to improve the natural environment, to protect environmental health and to prevent environmental pollution." Furthermore, Article 74 provides that: "Citizens and foreigners resident in Turkey, with the condition of observing the principle of reciprocity, have the right to apply in writing to the competent authorities and to the Grand National Assembly of Turkey with regard to the requests and complaints concerning themselves or the public."

The most important regulation on this topic is the *Access to Information Act*, which came into force in 2003. The purpose of this act is to lay down the guidelines and procedures for individuals to exercise their right of access to information in accordance with the principles of equality, neutrality and openness which are the fundamentals of democratic and transparent administration. This act applies to activities of public institutions and organizations, and professional organizations which have the status of public institutions. Lastly, right to information is also granted by the *Environment Law of Turkey*. Therefore, although Turkey is not Party to the Aarhus Convention, her domestic legislation has similarities to this convention (Güneş, 2012-2013). Thus, domestic legislations exist to regulate the right to access information, collecting information and access to justice.

II. ASSESSMENT OF THE IMPLEMENTATION OF RESPECTIVE INTERNATIONAL AND REGIONAL CONVENTIONS, TREATIES AND PROGRAMS, ETC. INTO DOMESTIC LAW OR POLICIES

Since the beginning of the 1970s, most coastal states have been developing policies and strategies while establishing joint research groups to prevent and reduce marine pollution. In light of such research, strategies and policies, they have come up with various international, bilateral agreements like the *Barcelona Convention and its protocols*. As a party State, Turkey has established various monitoring programs under the "Integrated

Marine Pollution Monitoring Project (DEN-İZ)”, studies by the Institute of Marine Science at Middle East Technical University (METU) and the Scientific and Technological Research Council of Turkey (TUBITAK) such as Marine Litter Action Plans in every coastal region, innovative strategies, measurements, and waste management systems to reduce marine litter at national and local levels. These projects will be discussed in Section I.

This part of the report has generally discussed Turkish implementation of international and regional conventions on marine plastic waste. Because of the limited feature of the Report, evaluation of Turkey’s implementations of UNEP’s programs from 2015 to date is below.

A) UN SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK (UN SDSN)

Since the UN Conference on Environment and Development was held in Rio in 1992, Turkey has reflected the concept of sustainable development through its *National Development Plans* (NDPs), which represent the highest level of planning framework. Turkey adopted the *Sustainable Development Goals of the United Nations* in 2015 (UN Sustainable Development , 2019). With this long-term experience, Turkey has a strong basis and infrastructure to set a course in line with the SDGs. Instead of producing a separate action plan or policy document for SDGs, Turkey prefers to implement and monitor SDGs and their indicators by integrating them into the NDPs and sectoral strategies with a holistic approach.

With its comprehensive framework, integrated approach and holistic structure addressing all elements of development, the *UN 2030 Agenda for Sustainable Development* provided Turkey with a new perspective in sectoral development policies (UN Sustainable Development, 2019). The *Voluntary National Review* (VNR) process has also accelerated the steps to address policies from this perspective. In that way, Turkey has initiated an Marine Litter Action Plan to reduce marine litter in its seas, lakes and ports according to *Circular 84973951-010.06.02-133021*, adopted by Turkish Ministry of Environment and Urbanisation (Turkish Ministry of Environment and Urbanisation, 2019). Initiation of the Marine Litter Action Plan is one of the most effective tools to achieve the 14th

Sustainable Development Goal. Implementation process of this action plan is detailed in Section II

Accordingly, the 6 targets (out of the 10) listed below from the 14th the Sustainable Development Goals (SDG) can be applied to Turkey.

- By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution;
- By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans
- Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels;
- By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics;
- By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information;
- By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization (WTO) fisheries subsidies negotiation; and
- Provide access for small-scale artisanal fishers to marine resources and markets (Presidency of Turkey, Presidency of Strategy and Budget, 2019).

When international conventions and regional conventions to which Turkey is a contracting state are considered, one could say that SDG 14, in terms of Turkey, is mostly related to marine pollution, marine and coastal ecosystems, and fisheries (Presidency of Turkey, Presidency of Strategy and Budget, 2019). During the time of the preparation of this report, the project team has asked the appropriate ministries for detailed information about the succession or failures about the targets (through the Presidency of the Republic of Turkey Directorate of Communications). However, no response has been received so far.

B) UNITED NATIONS ENVIRONMENT PROGRAM (UNEP)

The United Nations Environmental Program (UNEP) has a pivotal role in combatting the current marine litter problem in every part of world with its regional sea programs, polices, strategies, etc. As is well known, the Member States of United Nations comprise the UNEP. So, as a member state in the UNEP, Turkey mainly applies policies, campaigns, and the international standards of the UNEP throughout the MoEU. Turkey is one of the contracting states to the important international conventions of the UNEP such as the Barcelona and the Bucharest Conventions, and relevant protocols, as part of the UNEP's Regional Seas Programs.

The UNEP Regional Seas Program has become the UNEP's most significant regional mechanism for the protection of the marine and coastal environment since its establishment in 1974. Action-oriented projects are tailored to carry out region-specific operations, bringing together stakeholders such as states, scientific communities and civil societies. The UNEP is required to monitor the eighteen conventions and action plans for the regional Seas, affecting 146 countries. Turkey is the only country in the world which has been a partner in two regional UNEP seas programs – the Mediterranean since 1975 and the Black Sea since 1993 (Priority Actions Program Regional Activity Centre, 2005).

The Mediterranean Action Plan (MAP) is a platform for regional cooperation in protecting and enhancing the marine and coastal environment while promoting sustainable development in the Mediterranean region. The MAP was established in 1975 as a multilateral environmental agreement in the context of UNEP's Regional Seas Program. Mediterranean countries and the European Community approved MAP as the

institutional framework for cooperation in addressing common challenges of marine environmental degradation (UN Environment, 2020).

Mediterranean States also accepted Program for the Assessment and Control of Marine Pollution in the Mediterranean (MED POL) and that program was the first joint undertaking to reduce marine pollution in Mediterranean Sea. States are responsible to establish marine assessment programs at international and national levels regarding MED POL.

MED POL, represents a scientific and technical component of MAP and is responsible for the implementation of Land-Based Sources, Dumping and Hazardous Wastes protocols. MED POL had a key role in upgrading technical capacities in most Mediterranean countries through 500 research contracts concluded with national institutions in the period from 1982 to 1995; it also assisted MAP countries in establishing marine status monitoring programs. Turkey is also part of the program for MED POL. Furthermore, the "IMAP (Pilot) Info System" was initiated as a platform to facilitate access to knowledge for managers and decisionmakers, as well as stakeholders and the general public.

To date, the following projects have been performed by Turkey in terms of the marine litter aspects (Ecological Objectives 10) of MEDPOL (UNEP, 2017): Projects of Marine Litter Fluctuations at the Metu Beach, in Mersin Bay; the northeastern Mediterranean, during 2013-2017; and Microplastic Pollution on the Sea Surface, Water Column and Sediment of Mersin Bay in the northeastern Mediterranean.

During Projects of Marine Litter Fluctuations at the Metu Beach, beach marine litter were assessed along the Turkish coast in the Northeastern Mediterranean Sea by the Institute of Marine Sciences, Middle East Technical University (IMS-METU). This includes a pilot study, with 13 different beach locations, at Metu beach in 2014, and a monthly monitoring program (for a total duration of 41 months) along the Cilician coastline during 2013 and 2017. (MAP, 2017) According to the report of the report of this project:

“Monitoring beach litter especially on un-cleaned beaches (e.g. where there is restricted access to people) would have additional advantages for understanding litter transport dynamics either from the sea or from the neighbouring regions.

- *Long term monitoring of the standing stocks of coastal macro-litter in the model closed beach indicates that the average litter densities showed no significant difference through the 2014 – 2016 period.*

- *Beach use has been shown to remarkably contribute to the litter abundance on the beaches of the Cilician Coast, explaining among others the densities of the most prevalent litter functions (Rapid Consumption and Smoking).*

- *In order to achieve any reduction on coastal marine litter, the littering behaviour of beach goers and users and also that of the coastal inhabitants must be addressed through management plans. The high number of domestic tourists in the study region, many being present all year-round, makes easy the establishment of a target-group specific education programs and awareness campaigns.” (MAP, 2017)*

During the second project, assessment of 3 years (2014-2016) of microplastics sampled from the sea surface, water column and sediment from 3 stations in Mersin Bay, in the Northeastern Mediterranean were provided. Sampling was performed from the 3 stations, as single samples during the summer of 2014 and 2015 and as triplicate samples during the summer of 2016 (MAP, 2017).

In the report of these project, the achievements and recommendations are defined as:

- *“- Monitoring microplastic levels especially in sediment is a promising tool to be used as marine litter contamination.*

- *Triplicate sampling is important for sound assessment of microplastic levels in marine environment.*

- *At least a five-year monitoring data is needed for understanding trends in microplastic pollution.*

- *Wastewater facilities should also be monitored for their microplastic levels for the management of microplastic pollution. (MAP, 2017)."*

Within the framework of the *Barcelona Convention*, including MAP and MEDPOL IMAP, the parties have been required to establish pollution monitoring programs at the national and international level. Marine assessment programs that have been prepared and implemented by MoEU are envisaged to determine the changes in the water quality of the coastal regions affected by different levels of land-based pollutants in Turkish seas, and evaluate the risks and socio-economic impacts of human-induced pollution on the marine ecosystem (MoEU, 2018). Afterwards, marine assessment programs in Turkey under MoEU have been carried out under name "Integrated Marine Pollution Monitoring Project (DEN-İZ)" since 2011 in cooperation with TUBITAK Marmara Research Center (TÜBİTAK- MAM).

With those studies, stations are currently established at 79 points in the Black Sea Region, 66 points in the Mediterranean Region, 65 points in the Aegean Sea, and 59 points in the Marmara and the Bosphorus Region. In total, physicochemical, chemical and biological monitoring is carried out in coastal waters, transitional waters, sediment and biota at 269 points. Marine pollution in all seas is currently monitored and the Turkish government aims to establish the basis for the creation of national maritime and coastal management policies and strategies.

The marine monitoring studies covering the periods 2014-2016 and 2017-2019 have been carried out with the support of the TUBITAK-MAM and the MoEU. As a result of these monitoring studies, two different symposiums were held: 1st *National Marine Monitoring and Assessment Symposium* and 2th *National Marine Monitoring and Assessment Symposium*. In these symposiums, evaluations were made regarding plastic litter which were in the seas of Turkey.

These evaluations were aimed at providing guidance for strategies to be followed in the future, current deficiencies and the effects of these on the policies to be followed in the future. The technical data related to this monitoring process have been shared with NGOs, universities, municipalities, public institutions and relevant stakeholders through further symposiums. (Kanlı & Kurt, 2019). However, since the previous or future data is not

open-access, the comparative information on marine pollution is not available. Also neither the Ministry nor the municipalities have a legal obligation to publish the pollution data on Turkish seas.

Besides, an ecosystem-based, holistic monitoring approach had been developed within the strategies of the *EU Marine Strategy Framework Directive* and the *EU Water Framework Directive*. For the sustainable use of marine resources, and achieving good environmental status in the Turkish seas, MoEU initiated the *Turkey National Marine Environment Strategy* in 2018, which is still ongoing and aims to establish an initial legal basis of protection for the marine environment with respect to the indicators of good environmental status in the Turkish seas. A similar approach had previously been adopted for the coastal and transitional waters by integrating the EU-Water Framework Directive (2000) into Turkish national regulations, which set the targets for “good” ecological and chemical status. The *Turkey National Marine Environment Strategy* emphasizes the necessity of integrated and coordinated monitoring of data from the Black, Aegean and Mediterranean Seas and the need for establishment of reliable indicator-based assessments. Nevertheless, in order to apply effective and sustainable management strategies, knowing the ecological status and the environmental quality of coastal and marine waters is distinctly important. Therefore, the TUBITAK “Marine and Inland Waters research group” have performed studies on the monitoring of marine and coastal seas, ecological/environmental quality classification of coastal and marine waters and the identification of feasible action plans to achieve the identified targets of “good” status. (MoEU, 2018).²⁷

Although the contracting parties to the *Barcelona Convention* are required to ensure that their competent authorities give the public appropriate access to information on the state

²⁷ MoEU conducts the monitoring activities in coastal and marine waters regularly through TUBITAK projects, (https://ctue.mam.tubitak.gov.tr/en/research_areas/marine-environment-management). The policies of sharing outcomes with the public depend on the terms of reference between TUBITAK and the Ministry. Outcomes of some report periods are available and some of them are not. One of the instances which the outcomes were open to the general public was the “Integrated Monitoring of Pollution in Seas, 2014-2016” (<https://lab.csb.gov.tr/quot-denizlerde-butunlesik-kirlilik-izleme-programi-2014-2016-yili-akdeniz-ege-denizi-marmara-denizi-ve-karadeniz-ozet-raporlari-yayimlandi.-haber-220773>) According to its reports, Edremit Bay, in the analysis of garbage material from the deep samples of total amount of 90 kg/km², 79% of this garbage was plastic bags, 14% of that was paper-like garbage. However, since there is no legal obligation for MoEU to share marine pollution data with the public, the shared information is usually irregular and not comparable.

of the environment in the field under the remit of the convention and the protocols; activities or measures adversely affecting or likely to affect it, and on activities carried out or measures taken in accordance with the convention, and the protocols by Article 15 of the *Barcelona Convention* (UNEP, 2019), except with the specific project conducted by the independent research centers, Ministry does not have legal obligation to share information with public regularly.

While standardized monitoring activities were established in coastal/marine waters, sediments and biota for pollution status and ecological quality, some innovative parts were also planned and conducted via pilot monitoring activities to support the EU MSFD (2008) and the *Integrated Mediterranean Action Plan* (MAP) of the *Barcelona Convention*. In sum, the *Integrated Marine Pollution Monitoring Project* (IMAP) of Turkey has harmonized targets and objectives of the Mediterranean Action Plan.

Furthermore, Article 18 of the *Barcelona Convention* has led to the establishment of Regional Marine Pollution Emergency Response Centre for Mediterranean Sea (REMPEC)²⁸. Additionally, Turkey is a part of the Emergency Response Protocols which are from the annex protocols of the Barcelona Convention, the Bucharest Conventions, and the MARPOL 73/78 Convention plus annexes. Besides prevention of land-sourced pollution, studies with regard to the prevention of pollution originating from coastline transportation, preparedness for possible accidents, and response and indemnity of damages are being carried out.

Turkey has committed to conclude *Marine Litter Action Plans* since beginning of 2018. In 2019, the MoEU released the 2019/09 *Preparation of Marine Litter Province Action Plan and Implementation Circular* order to combat marine litter (Turkish Ministry of Environment and Urbanisation, 2019). According to the *Marine Litter Action Plans*, each province with a Mediterranean Sea, Black Sea or Sea of Marmara coastline has prepared a *Provincial Action Report* to combat marine litter. Action reports under these action plans will include information on the clean-up activities and pollution reduction studies to be published at the end of each year. The results will be evaluated and the minimization of

²⁸ Current REMPEC Profile of Turkey, accessed 20/12/2020 <<https://www.rempec.org/en/knowledge-centre/country-profiles/turkey>>

marine litter studies will be accomplished with the relevant sectors such as plastics, cosmetics, textile etc. Generally, clean-up activities in every region start from assessment of the current situation and identification of measurements and precautions, planning of clean-up procedures and other activities, conducting public awareness campaigns and future plans to reduce source of marine litter. Although, *Marine Litter Action Plans* are open access document, the operating reports of those action plans are not available from the MoEU website, and there is no legal obligation for neither the Ministry nor the municipalities to publish the outcomes.

From the plans discussed above, Turkey aims to reach a recycling rate of 65% for packaging waste and 35% for all recyclable waste by 2023 (United Nations, 2018). To achieve these goals, the President of Turkey initiated the national zero waste program in 2007. The zero-waste program is to be implemented throughout the whole country by 2023. According to 2017 data, Turkey is ranked 12th in the world with 13 million dollars of exports in the production of plastic products and 9th regarding the plastic bags exportation.

Plastic bag usage in Turkey began in the late 1980s. With the amendments in the Environmental Law, stores must charge for lightweight plastic shopping bags, from 1 January 2019. According to this amendment, the fee should be collected at the point of sale, upon the request of the consumer for a plastic bag, with the agreed fee being 0.25 TRY. However, this fee is to cover all kinds of plastic bags. Bags with a thickness of more than 15 microns are charged but bags used for cosmetics, food and nuts are not included. In addition, plastic bags used for foods such as bread and vegetables, which are required for the hygiene precautions, are given to consumers free of charge.

These two significant regulations are aimed at spreading zero waste management programs throughout the country by 2023. The Zero Waste Program is aimed to ensure the easy decomposition of recyclable wastes. Reasons such as the destruction of plastics in nature, their continuous release to the environment, and the absence of restrictions on their production required broader policies to prevent this problem (Kanlı & Kurt, 2019).

C) UN PROJECTS

1- Clean Seas and Project Plastic Busters

The Clean Seas' Campaign is contributing to the global partnership on marine litter (GPML) project. Turkey is one of the states which have joined that campaign²⁹. Even though Turkey has been part of the *UN Clean Seas Project*, Turkey takes a part in the *Project Plastic Busters* through UNEP/MAP (Plastic Busters, 2020).

2- Beyond Plastic Med (BeMED)

In the light of the BeMed project, single-use plastic bags have been banned in France, Italy, Morocco and Tunisia, have to be paid for in Cyprus and Turkey, while there is an eco-tax for them in Malta and Greece³⁰.

On June 8, 2016, the BeMed project launched a call for micro-initiatives aimed at all Mediterranean countries. Eleven projects from Greece, Italy, Turkey, Cyprus, Albania, Lebanon, Tunisia and Montenegro were honored in Monaco in March 2017 for their innovative nature - whether technological, institutional or related to public awareness and outreach.³¹

3- Developing Networks on the Environmental Management of Enclosed Coastal Seas (EMECS)

Developing Networks on the Environmental Management of Enclosed Coastal Seas (EMECS) aims at establishing an international and academic network to solve the marine environmental issues (such as marine litter, ocean acidification etc.) of enclosed coastal seas in an integrated way by International EMEC Center. The relevant Academic Partner Institution in Turkey is the Mediterranean Coastal Foundation (MEDCOAST). A Progress Report of above-mentioned project will be released in July 2021 (UN, 2018).

²⁹ UNEP Evaluation Office, 2019, “*Mid-term Evaluation of the UN Environment: Clean Seas Campaign*” (*Contributing to the Global Partnership on Marine Litter project*), accessed 24/10/2020 <wedocs.unep.org>

³⁰ Beyond Plasticmed, 2020, “Focus on the Mediterranean sea”, accessed 10/12/2020 <<https://www.beyondplasticmed.org/en/the-plastic/focus-on-the-mediterranean-sea/>>

³¹ Tara Mediterranean, 2017, Mediterranean Sea as a research laboratory for marine plastic debris, accessed 20/11/2020 <<https://oceanconference.un.org/commitments/?id=19386>>

Little information is available on how plastic debris circulates and is accumulated in the Mediterranean Sea. The dispersion and accumulation processes of plastic debris, the chemical components that plastic fragments carry along or its interactions with the biota have not yet been sufficiently studied.

D) OTHERS

1- General

Last, but not least, the part of the report referred to project to combat marine litter combat at the national and local levels. Those projects were chosen according to their social awareness effects in the media, public opinion, timing and accessibility.

The *Sea Surface Marine Litter Cleaning Operation (SSMLCO)* is aimed at reducing floating (sea surface) marine litter. The SSMLCO is carried out in Turkey by three metropolitan municipalities: Istanbul, Kocaeli, and İzmir, and the district municipality of Beşiktaş. The Istanbul Metropolitan Municipality has been actively working for 7 years with 12 garbage collection boats. The Izmir Metropolitan Municipality has been operating for 12 years with one garbage collection boat. The Kocaeli Metropolitan Municipality has been operating this activity for 5 years with 3 garbage collection boats and the Beşiktaş District Municipality has been active for 13 years with one garbage collection boat (MARLISCO, 2017).

Garbage collection boats gather all sorts of marine litter (plastic bags, balloons, buoys, rope, medical waste, glass and plastic bottles, cigarette lighters, beverage cans, polystyrene, fishing line and nets) almost every day in coordination with their shore team. The Istanbul Metropolitan Municipality and the Beşiktaş Municipality send collected marine litter to waste repositories to be sent to recycling plants later. The amount of marine litter on the sea surface has been reduced as a result of these operations (MARLISCO, 2017).

2- The Zero Waste Blue Project

The *Zero Waste Blue Project (Sıfır Atık Mavi)* project was launched by the First Lady of Turkey, Emine Erdoğan, in cooperation with the *Turkish Marine Environment Protection Association (TURMEPA)* to reduce the amount of marine litter and to improve the perception of Turkey's seas (Zero Waste, 2019).

Various social awareness campaigns, such as education programs for school-aged children, movie festivals, collections of plastic from sea surface, and zero waste education

have been initiated to inform the public about reducing marine litter, recycling plastic waste etc. by the *Zero Waste Blue Project*. Also, every year, a zero waste award ceremony is held to create awareness of that matter (Zero Waste, 2019).

3- The Blue Lid Campaign

The *Blue Lid Campaign* is a social responsibility project that is widespread throughout Turkey for supplying wheelchairs in exchange for plastic bottle lids to those who need a wheelchair but cannot afford to buy one. The *Blue Lid Campaign* was first launched in 2010 by the Faculty of Dentistry at Ege University. The *Spinal Cord Paralytics Association of Turkey* also started a similar campaign in 2011. The Faculty of Dentistry, at Ege University ended the campaign in late 2012 and passed over their lids to the Turkey Spinal Cord Injury Association (TOFD). The campaign has been conducted by the *Spinal Cord Paralytics Association of Turkey* since the beginning of 2013 (MARLISCO, 2019).

Lids are gathered and brought by post or retail store vehicles to be collected at the storage site, where lids are weighed. The lids are then transported to recycling plants and wheelchairs are given in exchange for the lids. The project works on a volunteer basis. With this project the bottle lids are recycled and many disabled people have their own wheelchairs. There is also great interest extend the campaign throughout Turkey, from both individual supporters who collect lids everywhere and institutional supporters doing this as corporate project. A manual wheelchair is worth 250 kg of bottle lids. An electric wheelchair is worth 2.5 tonnes of bottle lids. Even without much publicity, this campaign has become very popular in Turkey.

The *Blue Lid Campaign* was considered one of the compilations of the eleven best practices in the 2016 UNEP European Seas Report related to Marine Plastic Debris and Microplastics (UNEP, 2016).

Transboundary feature of the marine litter problem also makes more difficult control of marine litter and requires strong and effective regional and international cooperation. Although plastic garbage on the sea or on the shore is being collected by states, municipalities, NGOs, universities, voluntary associations, even marine garbage fishing activities are being carried out, it should be noted that there is currently no definitive

solution for microplastic litter. For this reason, it is necessary to take effective measures nationally and regionally to reduce the microplastic waste in conjunction with plastic garbage.

III. IN-DEPTH ANALYSES OF THE DOMESTIC ENVIRONMENTAL AND WASTE MANAGEMENT LAW AND LEGAL PRACTICE

A) ACCURATE DESCRIPTION AND EVALUATION OF SUBSTANTIAL AND PROCEDURAL CONTENTS

This part of the report analyses the domestic environmental legislations, their sanctions and power and adequacy of the sanctions.

The *Environmental Law* No. 2872, and the regulations issued based on it, come first under the national law. Under the legislation, it is forbidden to directly or indirectly deliver, store, transport, remove and carry out similar activities in a way that harms the environment, in violation of the standards and methods specified in the relevant regulations. In cases where there is a possibility of contamination, those concerned should prevent contamination; in cases where pollution occurs, they are obliged to take the necessary measures to stop the pollution, to eliminate or reduce the effects of pollution.

According to Art. 11 of the Environmental Law, coastal facilities such as ports, shipyards, ship maintenance and repair, ship dismantling, and marinas are obliged to carry out operations and facilities related to the collection, storage, transportation and disposal of oil, oily solid wastes and liquid wastes such as bilge, dirty ballast, sludge, slop and domestic wastewater and solid wastes in their own facilities and ships and other marine vessels.

The characteristics of environmental problems are universality, inclusiveness and versatility, interdependence, permanent effects and extending to future generations and often the inability to restore lost values increase the importance of preventive mechanisms for environmental protection. Therefore, one of the areas where executive tools are of most importance is the activities related to environmental protection. The state itself, most of the time, by granting authority to the administration that can actively intervene in life, regulates and supervises the activities that it is subject to closer and finer control and tries

to ensure that these activities are carried out in accordance with the laws and all other regulatory procedures. In other words, administrative sanctions aimed at protecting the environment constitute a part of the mechanisms that aim to ensure compliance with the orders, prohibitions, rules and procedures set by the administration in activities that are left to the administration to be inspected and regulated in terms of the continuation of public order.

The administrative sanctions imposed by the Environmental Law can be effective with regulations made within the framework of the short-, medium- and long-term environmental policies of the state and the relationship of these policies to all other policies, especially agricultural, developmental and industrial policies. Otherwise, for the state, the protection of the environment will become a limited area of responsibility, with only the making of regulations stipulating rules and procedures enforced by sanctions. However, as emphasized above, Article 56 of the Constitution, in which the right to a healthy environment is established, the effectiveness of the state in this field is not limited to imposing sanctions but rather it encourages a duty of supervision and surveillance.

Almost all of the fines applied result from Article 8 of the Environmental Law, “Prohibition of Pollution”, where it is forbidden to directly or indirectly deliver, store, transport, remove and carry out similar activities in a way that will harm the environment and in violation of the standards and methods specified in the relevant regulations. In cases where there is a possibility of contamination, those concerned will prevent contamination. In cases where pollution occurs, they are obliged to take the necessary precautions to stop the pollution, eliminate or reduce the effects of pollution.

According to Article 20/1 of the Environmental Law, those who discharge waste into the seas and the maritime jurisdiction areas under the jurisdiction of Turkey contrary to this law and other regulations issued pursuant to this law, may be fined. Fines for marine vessels of up to 1,000 (inclusive) gross tons, from other marine vessels that discharge solid waste or domestic wastewater, is 661 Turkish lira (TL) per gross ton. The amount for those between 1,000-5,000 (inclusive) gross tons, is 165 TL for each additional gross ton, and 16.50 TL per each additional gross tons. Also, for tankers up to 1000 (inclusive) gross tons discharging dirty ballast, the fine is 120.60 TL per gross ton and 24.06 TL per each additional gross ton. More generally those who dispose of wastes without taking

measures in marine areas under the jurisdiction of Turkey contrary to the prohibitions or standards stipulated in this law and other regulations are levied an administrative fine of 96.561 TL.

Those who provide false and misleading information contrary to the requirement to notify and provide information as stipulated in Article 12 of this law are liable to imprisonment of six months to one year. In the application of this law, the provisions of the Turkish Penal Code 5237, 26 September 2004, regarding the crime of forgery of documents shall be applied to those who issue and use false or misleading documents. According to this article, the environmental impact assessment process is suspended until the end of the judgment in the disputes regarding any charges of forgery submitted to the courts.

Additionally, as a more general provision, according to Article 41 of the Law of Misdemeanours (5326), an administrative fine of 20 TL is imposed on persons who throw domestic waste and residues outside of the places specific to their collection or storage. The provisions of this paragraph are also applied in case of disposal of individual waste and residues.

Another general provision from the Penal Code (Law 5237), contained in Articles 182-183, is that a person who deliberately delivers waste or residues to the soil, water or air in violation of technical procedures determined by the applicable laws and in a way that harms the environment, may be punished with imprisonment of six months to two years. Also anyone who brings waste or debris into the country without permission may be punished with imprisonment of one to three years. The penalty is doubled if the waste or residuals causes permanent changes in the characteristics in the soil, water or air. In the event that these acts are committed in relation to waste or wastes that may cause diseases that are difficult to treat for humans or animals, deterioration of reproductive ability, or change the natural characteristics of animals or plants, a prison sentence of not less than five years and a judicial fine up to a thousand days applies. Security measures specific to legal entities are imposed due to these acts. Any person who, by negligence, causes waste or wastes to be discharged to the soil, water or air in a way that harms the environment, may be punished with a judicial fine. If these wastes or residues leave a permanent effect on the soil, water or air, a prison sentence of two months to one year is possible. Any person who causes the emergence of diseases that are difficult to treat in terms of humans

or animals, the impairment of reproductive ability, and the negligence of waste or wastes that may cause natural characteristics of animals or plants to change the soil, water or air by negligence, may be punishable with imprisonment of one to five years.

In these regulations, reference is made to the Environmental Law and the Law of Misdemeanours regarding administrative sanctions. Implementation of both administrative and criminal sanctions are provided for in these provisions. In this respect, the regulations are comprehensive and the penalties are reviewed every year. In 2021, judicial fines range from 20 -100 Turkish lira per day.

As already mentioned above the Environmental Law (2872) and the Turkish Criminal Code (5237) deal with judicial sanctions. In this respect, administrative sanctions are used more actively than judicial sanctions in terms of environmental law.

The Zero Waste Regulation adopted under the Environmental Law, as mentioned above, is essential to evaluate the reuse possibilities of products and materials that cannot be prevented from waste generation. The Zero Waste System is created for establishing an inventory of packaging waste as an obligation of the *Turkish Regulation on the Waste Management*. Every year, the packaging producers/suppliers should upload information about their packaging production and amounts released (production, export, import amounts) to the market, the usage areas, and the recovery rates (Gülşah, 16). Zero Waste Certificates obtained under the regulation are valid for five years and places are obliged to obtain a document and apply for renewal three months before the validity period of the document expires and the document process starts again. During the validity period of the certificate, places with the certificate will be inspected at least once by provincial environmental directorates.

The fees to be paid for issuing a Zero-Waste Certificate, increase with levels; the process of renewing and updating is determined by the MoEU every year. The procedures and transactions, as well as administrative sanctions possible under this regulation, are carried out by authorized authorities and in case of detection of acts prescribed for administrative sanctions, within the scope of the Environmental Law (2872), Law of Misdemeanors and Law of Municipalities. Within the framework of the legislation, administrative fines from

1,000 to 1,000,000 TL can be imposed. These penalties imposed between 1/1/2019 and 31/12/2019 amounted up to 3,008,653 TL.

In line with the *Implementation Schedule for the Establishment of the Zero Waste Management System*, the implementation procedures for various public buildings and private entities, institutions, hospitals, transportation vehicles and stations, every kind of marketplaces and shopping centers which will be required to obtain the zero waste certificate on the basis of a legal obligation will be on force by December 31, 2022 at the latest.

Campaigns for the *Zero Waste and Zero Waste Blue*, which were launched by the Turkish Government, raise awareness to reduce and recycle plastic wastes through its campaigns and requirements. The needed amendments that aim to decrease the usage of the plastic bag are contained in the Law Related to Making Amendments to the Environmental Law and Other Laws. In order to manage resources efficiently and to prevent environmental pollution caused by plastic bags, plastic bags are to be given to the user or the consumer at the sales points for a fee. The base fee to be charged is determined by a commission to be established by the MoEU and is updated every year, but not less than 0,25 TL. If the plastic bags are to be given free of charge to the consumers, there is an administrative fine that is to be calculated based on the size of the enclosed sales area.

Article 3(1) of Environment Code provides compulsory standards for the protection of the environment, prevention and elimination of environmental pollution by taxing, feeing, promoting renewable energy sources and clean technologies, recycling contribution, reduction of the use of plastic bags and plastic packaging, deposit application, emission fee, pollution fee and market-based mechanisms such as pollution prevention collateral and carbon trading, as well as economic tools and incentives are to be used. The administrative and technical procedures and principles regarding these issues are determined by the regulations to be issued by the MoEU.

Under the Waste Management Regulation of the MoEU the duties of public institutions and organizations and the details of the Zero Waste Project regulation have been provided article by article. All comprehensive studies undertaken by the MoEU in all respects are evaluated based on the services performed for the waste management procedures.

According to the Waste Management Regulation, in the process of storing and disposing of wastes, it aims to prevent harm to human health and the environment, to prevent waste by preventing waste generation, and to ensure recyclable production. Apart from this, reduction of waste generation, reuse and recycling of waste are among the aims. The MoEU sets the types and classification of wastes. Accordingly, in waste management, wastes include atmospheric gas emissions, radioactive wastes, explosive and caustic wastes, biogas wastes, animal wastes and medical wastes. It is necessary to make evaluations based on the criteria taken as the basis for this waste management classification. Thus, it will be possible to easily express that each has its own characteristics. Considering all these factors, it is aimed at developing waste management system in every sense based on high standards without sacrificing quality. In terms of these purposes, it is essential to raise both environmental health and human health to world standards in the 21st century.

In addition, the Waste Management Regulation provides that wastes generated during the exploration, extraction, processing or storage of mines and the Annex-4 Waste List will be taken into consideration in the recognition of construction and demolition wastes. The characteristics of the hazards are explained in Annex-3/A. In such cases, it is clearly explained which provisions of the regulation will be processed. The regulation also defined individual concepts. From the definition of the packaging to the question of who is the waste producer, all technical terms are listed item by item. It appears to be an approach based on the integrity of the service in which the MoEU is responsible, based on increasing the sensitivity of institutions, organizations and legal entities serving all public interests, especially the MoEU, on what is the Waste Management Regulation. These services constitute processes based on the principle of providing the necessary in-house trainings on waste management, creating a waste management plan, preparing reports at the end of the year and submitting them to the provincial directorates. When these processes are taken into account, it should be noted that the MoEU will work in co-operation with other institutions and organizations on waste management. Tasks such as creation of technologies that will facilitate the use of cleaner production technologies for waste processing facilities are included by the MoEU.

Another component of national law, the Water Pollution Control Regulation, targets the protection of water resources and the regulation includes effective regulations to prevent pollution of the seas. In the definitions, waste, wastewater, sea discharge and marine regions are defined in detail. The Regulation lays down the basic principles regarding the protection of waters and the relevant principles are based on determining the areas where the seas are polluted and determining the relevant pollution-related measures. Some of the pollution methods of the seas are clearly stated in the regulation. The Regulation clearly controls pollution bans on the seas. Related prohibitions were counted using the casuistic method. The prohibitions are extensive and detailed. Some activities are subject to the permission of administrative authorities. The administration takes the necessary measures regarding prohibitions and threats. Discharge principles of wastewater are regulated. The principles of wastewater discharge, the rules and methods to be followed, the responsibilities of the people who cause the wastewater to be generated are determined. Sampling method from the seas is specified. Terms and conditions of discharge to receiving environments by deep sea discharges are regulated. Conditions where deep sea discharge may be allowed, deep sea discharge criteria and exception provisions are stipulated. Under the scope of the provisions regarding obtaining an environmental permit, the obligation to take measures against marine pollution has been declared and an environmental permit has been issued for institutions, organizations and enterprises with deep sea discharge.

Inspection, notification obligation, wastewater treatment plant project approval and sanctions are regulated under the heading of various provisions. In sanctions, it is stipulated that additional time will be given to those who act against the prohibitions and those who do not comply with the specified obligations, and if the violation is not resolved at the end of the period, the penalties specified in the Environment Code will be imposed.

When evaluated, the Regulation on the Regular Storage of Wastes, in its final provisions, the administrative sanctions are prescribed for the inappropriate dump sites. The regulation referred to the Environment Law on administrative sanctions. However it provides the terms and conditions for the general waste storage rather than the plastic waste.

The regulation controls general principles, duties, authorities and obligations in terms of the regulation of packaging waste regulates the provisions regarding the production and placing on the market, the recycling / recovery targets and the fulfillment of the targets, the packaging waste collection system and the environmental license. In various and final provisions in part eight part of the regulation, harmonization with the European Union legislation, the Packaging Commission, training and information and administrative sanctions have been regulated.

As another important step, the MoEU General Directorate for Environmental Management, issued a “Circular” (No 2019/09) which deals with an action plan on the marine litter. The circular addresses marine litter generally and plastic waste only indirectly. The aim of the circular was to prevent marine litter on the shores and the sea. The circular establishes a Commission on the Management of the Marine Litter and provides the basics of the action plans. While determining the working plan, the necessary equipment and staff members for collecting the garbage from the shores, beaches, stream mouths, and rivers shall be taken into account by the municipalities. The circular imposes the duties of collecting, categorizing, and recycling wastes on the shore/sea facilities.

In accordance with Circular No. 2019/09 on the preparation and application of provincial plans action against marine litter, *Provincial Action Plan Against Marine Litter Preparation Manual* has been prepared by MoEU to be sent to coastal provinces. It outlines the steps to be taken within its territorial scope to prevent and reduce marine litter caused by land-based maritime, fishing or tourism activities, in, under and around seas. Action plans shall consist of the territorial scope, current situation assessment in terms of marine litter, pollutants, measures to be taken, planning activities regarding marine litter cleaning, studies to be carried out in receiver fields, enhancing public awareness, planned and ongoing activities related to the reduction of the marine litter at its source, and assessment and clarifications.

The *Provincial Action Plan against Marine Litter Preparation Manual* standardizes the data collection process at the provincial level to pinpoint and assess key factors involved in combatting marine litter countrywide. Through the format laid out for the *Provincial Marine Litter Action Plan*, local authorities are provided with a clear and concise framework to identify elements contributing to marine litter and ongoing efforts to

combat the problem. Using this information, authorities may then plan future action in the various ways provided in the manual by adapting them to their situation.

With a standardized format for provincial authorities, the data collected may later be utilized in comparing the effectiveness of the courses of action taken in different provinces. When compiled, the information provided by provincial authorities also presents an effective instrument for assessing collective efforts against marine litter on a national level. In sum, the *Preparation Manual for Provincial Action Plans against Marine Litter* should provide a considerable benefit in the long run by tackling the procedural inefficiencies in combatting marine litter.

B) ANALYSES OF RESPECTIVE AND RELEVANT CASE-LAW BY THE JUDICIARY (CIVIL AND CRIMINAL COURTS) AND ADMINISTRATIVE AUTHORITIES

1- Environmental Cases before Higher Courts

This part of the report analyzes environmental and waste management case law by the judiciary and administrative authorities in Turkey. To correctly achieve this analysis, it is necessary to examine the jurisdiction of higher courts such as the Constitutional Court, the Court of Cassation and the Council of State (as the high administrative court). The search has not revealed any judgements directly related to the release of illegal waste into the sea, one of the main focuses of the “Clean Mediterranean Sea!” Project. However, judgements that could be relevant for domestic environmental and waste management law, especially about a clean and safe environment, are considered in this analysis.

The judgments mentioned below give an idea of Turkey’s approach to environmental law generally and the importance given waste management and plastic waste in particular. Even if there is no directly-related judgment on illegal waste dumping into the sea, since awareness of this subject has already initiated at the sub-legislation level, with the scope of Turkey’s zero waste management approach, cases should be expected before the higher

courts soon. Some recent cases are currently at the courts of first instance thanks to non-governmental organizations generating public awareness on this subject³².

2- Judgements of the Constitutional Court

There is jurisprudence on the right to live in a clean and safe environment and well-being of people. Indirectly plastic waste can also be considered to be within the scope of these judgements. Judgements of the Constitutional Court are crucial to point out which principles apply to Turkish environmental law in practice. This report's analysis at the Constitutional Court level is highly focused on how far the right to live in a clean and safe environment is emphasized and whether it has priority over other constitutional rights in the judgements.

The right to a clean environment, takes its constitutional basis from Article 56 of the Turkish Constitution as a human right regulated together with the health services. This article emphasizes that anyone has the right to live in a healthy and balanced environment. It is not only the individual but also the government and all citizens are also responsible for developing the environment, protecting environmental health and preventing the pollution of the environment. Such obligations of the government are also emphasized in the Constitutional Court judgements³³. Even if the government is required to meet these obligations, in accordance with the Article 65 of the Turkish Constitution, the government's social and economic obligations that are laid down in the Constitution, might be limited according to the sufficiency of financial resources, with their objective priorities taken into consideration. Although there has not been any direct judgement on this issue, based on the connection between it and the right to live, a Constitutional Court judgement properly points out, "*the right to live in a healthy and balanced environment,*

³² For instance, Kemalpaşa Criminal Court of First Instance, Investigation Report 2020/279, 26 February 2021. This investigation is still pending as of 6 August 2021. Because of the principle of the secrecy of investigation under Turkish Criminal Law, further information regarding the investigation could not be obtained.

³³ Constitutional Court Judgement, 29 November 2012, E. 2011/106, K. 2012/192 (Official Gazette 28606, 02 April 2013,(repeated); Constitutional Court Judgement, 24 April 2012, E. 2011/110, K. 2012/79 (Official Gazette 28360, 21 July 2012, numbered 28360).

shall not be waived if it would cause economic, bureaucratic and actual liabilities and effect productive activity³⁴”.

Some principles related to Turkish environmental law are underlined in the jurisprudence. These principles may also be binding for a plastic waste issue if it is discussed in the judgement.

A recent judgement rendered by the Constitutional Court that is entitled “*Aslan Avcı Döküm Sanayi ve Ticaret A.Ş. Başvurusu*”³⁵, is important in environmental law regarding the disposal of wastes, even if it is related to hazardous wastes and not plastic wastes directly. However, the principles mentioned in this judgement can also be applied to plastic waste. The right to live in a clean and safe environment might come across to rights to property in some cases. It is important to clarify that which one of these two constitutional rights will be superior.

In this recent judgement, it is stated that the aim of protecting the environment is for the public interest and proportionate interventions against property rights could be considered as acceptable because of this reason. In this application to the Constitutional Court, the applicant company claimed that its constitutional right to property was violated by public authorities who levied an administrative fine against the company because of the hidden wastes that were generated by the company. These hidden wastes migrated into water well near the area and heavy metals were found in the water.

However, the applicant claimed that since it is not possible to get rid of this kind of waste, public authorities’ decision to give an administrative fine was not proportional to the violation. The Constitutional Court decided that there was no actual difficulty in the disposal of the hazardous wastes and emphasized that disposal of hazardous wastes has a crucial role in the protection of the environment. Finally, the Constitutional Court held that there is no violation of the constitutional right to property, because the fair balance

³⁴ Constitutional Court Judgement, 25 May 2012, E. 2011/110, K. 2012/79 (Official Gazette 28360, 21 July 2012).

³⁵ Constitutional Court Judgement, 28 January 2020, Application of *Aslan Avcı Döküm Sanayi ve Ticaret A.Ş.* (Official Gazette 31051, 26 February 2020).

that had to be established between the applicant's right and the public interest was not damaged so the intervention was proportionate.

3- Judgements of the Court of Cassation Civil and Criminal Chambers

a) In the Court of Cassation Civil Chambers

Since the Court of Cassation Civil Chambers are occupied with cases resulting from the mutual relations between private parties under the private law, no judgement has been found concerning the protection of public interests regarding plastic waste. That is why judgements of the Court of Cassation Civil Chambers are excluded from the scope of the study.

In this analysis, before discussing the judgements of the Constitutional Court, the Court of Cassation Criminal Chambers and the Council of State, there is a short explanation on the legal framework of the applications under each section below so that judgements can be better understood.

b) In Criminal Chambers

There are few judgements in this research that are considered substantially related to plastic waste. In the current situation, it is also found that there are many judgements on other kinds of waste on the private and public lands, some of them are discussed in this analysis. Applications on incidents of plastic wastes are expected to increase in the jurisdiction due to the increase in public interest on this issue, especially after the recent plastic waste imports of Turkey. Since plastic wastes do not effect human life immediately, it is really difficult to find a beneficiary party or a victim who is directly effected by this issue, so public awareness is the only way to bring the issue before courts. For instance, an investigation into plastic waste was conducted recently after the application by Greenpeace. It is estimated that Turkish jurisprudence on plastic wastes and waste management will be structured to the extent permitted by the legal framework, especially with the contributions of non-governmental organizations.

In the Turkish Criminal Code, there is a section on "Crimes against the Environment", and under this section Article181 defines "Intentional Pollution of Environment" as a

crime and Article 182 concerns “Pollution of the Environment by Negligence”. It is provided in Article 181 that if someone intentionally drains refuse or waste to the ground, water or air contrary to the technical procedure defined in the applicable laws and in such a way to cause environmental pollution, can be punished with imprisonment from six months to two years. It also provided in the article that the punishment to be imposed is doubled if the waste or refuse are found to have a persistent effect on the ground, water or atmosphere. The crime of intentional pollution of the environment is not an offense prosecuted only on complaint. That means judicial process and inspection may be initiated by prosecutors without any complaint.

As it can be discerned that this article is directly related with issues of plastic waste. It is also stated that the punishment could be doubled if the plastic waste has residual effect in the water. This crime is also regulated in Article 182 in the same way, with the only difference is that it is due to “by negligence” in Article 182 not the “by intention” as in Article 181. It should be noted that the offenses in the judgements below, not only violate the Criminal Code but also the Environmental Law and the *Regulation on Water Pollution Control*.

To start with, the relevant Court of Cassation 4th Criminal Chamber’s first judgment concerns fishing nets. In the first place, the nets can be rated as non-plastic waste; however, according to Greenpeace, lost and abandoned fishing gear which is deadly to marine life makes up the majority of large plastic pollution in the oceans and seas. Ghost gear is estimated to make up 10% of ocean plastic pollution but forms the majority of large plastic littering the waters. One study found that as much as 70% (by weight) of macro plastics (in excess of 20 cm) found floating on the surface of the ocean was fishing related (Greenpeace, 2019).

Turning to the incident that was discussed in the judgement, a ship named *Tutku-6* was detected by the Coast Guard to be fishing illegally; as they approached the suspected vessel the captain and the owner of the ship threw their nets into the sea. The chamber found the suspects innocent, on the grounds that the type of the fishing net used – algarna - is a very expensive piece of equipment, so the suspects had no intention to pollute the sea. It is well-known that illegal fishing vessels throw their equipment overboard to prevent the confiscation of them, because of their illegal fishing act. The fishermen

recorded their coordinates and in a short while returned there to retrieve their fishing gear and continued fishing. Therefore, these materials are not persistent underwater and to this end no pollution occurred³⁶. In the second judgement, the chamber also decided the suspects were innocent, with the same justification. This time the thrown objects were trawling equipment³⁷. It is apparent from this that, in an event that the evaluated waste persisted in the water, the chamber would have to conclude that the crime had been committed.

In another judgement, the crime of intentional pollution of the environment by dumping plastic wastes into the forest area was brought before the court. In that incident, the defendant dumped plastic waste, estimated to be around four-five tons, in the forest area of his village, instead of taking it from the factory and taking it to the garbage dump in accordance with the contract. Because of an insufficient expert report that did not have any explanation about the polluting properties of the waste, the court of first instance ruled that no crime had been committed. However, the chamber stated that an additional expert report regarding whether the wastes are in the class of waste that pollutes the soil within the scope of legislation should be obtained and if this report said that this waste pollutes the soil or it is possible to pollute the soil, it would have been necessary to make a judgement for the most serious crime in accordance with the Criminal Code, as well as the Forest Law (*Orman Kanunu*)³⁸. In light of this judgement, it should be understood that an expert report on the waste is crucial, as this issue requires special expertise.

In another judgement of the Court of Cassation 4th Criminal Chamber, the suspect who was the captain and owner of a fishing ship was found guilty of the intentional pollution of the environment. The inspection by coast guard helicopters, which was initiated upon a accusation that the ship had been draining oil and petroleum into the sea, showed that there was some petroleum-derived waste which could be seen as shiny traces on the sea surface throughout the ship's route. The suspect however, claimed that he did not

³⁶ Court of Cassation 4th Criminal Chamber Judgement, 17 December 2014, E. 2013/28801, K. 2014/36306 (Lexpera).

³⁷ *ibid.*

³⁸ Court of Cassation 4th Criminal Chamber Judgement, 01 December 2014, E. 2012/33372, K. 2014/34637 (Lexpera).

intentionally drain the waste into the sea but that it might have come out from the engine or another place. Even so, this defense did not change the chamber's decision³⁹.

The Court of Cassation 4th Criminal Chamber's other judgement is about pollution of the environment by negligence. This time the suspect was an executive of a ship breaking limited liability company. There were two ships in the pool of the company at the A. Ship Breaking Facility. However the ships had not been broken and there were no barriers around them. Near the ships there was an amount of oil and petroleum leakage. It was found that the company had not taken any measures on the issue in order to prevent pollution. In the end, the chamber reversed the judgement of the court of first instance, which found the suspect guilty with pollution of the environment by negligence. The chamber stated that the actions of the guilty constituted the crime of intentional pollution of the environment by omission⁴⁰.

Independently of the plastic pollution, there are also some on-going judicial processes on recycling and plastic waste management. One of them is a criminal case that is still in the process. It was initiated upon the accusation of Greenpeace after abandoned bundles of plastic wastes were detected in September 2019 in Izmir (Bianet, 2019). The incident is about plastic wastes supposedly imported from Italy, stored in an open area in Izmir, against the Environmental Law and applicable licensing and storing conditions. There was also some dangerous medical waste among these plastic wastes; these were posing serious risk to the local community. The suspect was an executive of a recycling limited liability company. At the indictment, it was stated that the suspect had committed the crime of intentional pollution of the environment⁴¹. However, the criminal case has not been completed yet and it is continuing at the criminal court.

4- Judgements of the Council of State

³⁹ Court of Cassation 4th Criminal Chamber Judgement, 17 December 2014, E. 2013/25552, K. 2014/36299 (Lexpera).

⁴⁰ Court of Cassation 4th Criminal Chamber Judgement, 10 December 2014, E. 2012/33680, K. 2014/35727 (Lexpera).

⁴¹ Kemalpaşa Criminal Court of First Instance, Investigation Report dated 26th February 2020, numbered 2020/279.

In the judgements of the Council of State it is possible to render an administrative fine in case of a violation. In addition, some of provisions of regulations on waste management could be discussed and cancelled or amended too. In this sense, judgements given by the Council of State have importance in terms of practice as well as defining principles of environmental law. From the judgements regarding the waste management system that are discussed in this research, such roles of the Council of State can be seen.

The judgement on the application to the Council of State with the demand of cancelling some provisions of the repealed Regulation on Packaging Waste Control (*Ambalaj Atıklarının Kontrolü Yönetmeliği*) dated 2011, have a place in emphasizing the principles of environmental law. This judgment holds that waste management activity which is carried out free of charge by packaging producers is an example of the principle of polluter pays. It is emphasized that this principle is devoted to cover the expenses to be made for the prevention of pollution and deterioration by the polluter or the person causing deterioration.

Accordingly, all packaging waste producers are required to deliver their packaging wastes to the municipality's collection system or to the collection and separation facility free of charge, but the statement "without the condition of being free of charge" was cancelled in the regulation.

However, the cancellation decision was made unanimously and it was evaluated in the vote that the right to property guaranteed by the Constitution could only be restricted for public interest and by law, so giving the waste "free of charge" is an intervention at the core of the right to property. Because, pursuant to the Constitution, it is emphasized that this issue should be regulated by law⁴². However, this opinion is not appropriate in accordance with the fact that the right to live in a healthy environment is also a constitutional right and is not consistent with the generally accepted principles of polluter pays and the protection of environment.

On the other hand, the Regulation of Packing Waste Control of 2017, which is currently in effect, has no statement regarding the cost. This regulation in effect, has also been

⁴² Council of State 14th Chamber Judgement, 5 November 2013, E. 2011/16096, K. 2013/7348 (Kazancı).

brought before the Council of State regarding the cost issue. This time, the issue arose from the problem of interpretation of the relevant article of the regulation, since there is no statement regarding the cost. The Council of State held that the current regulation should be understood in accordance with the Council of State decision regarding the previous regulation⁴³. In these Council of State judgements, the significance of environmental protection and waste management is emphasized.

Another judgement was rendered as a result of a hospital's application for the cancellation of the demand to impose administrative sanctions in accordance with the Environmental Law, for the medical waste thrown into the blue colored garbage bins on which it is written "plastic waste." Article 20 of the Environmental Law sets forth that fines will be imposed on those who collect, transport, temporarily store, recover, recycle, reuse or dispose of waste in violation of the procedures and principles specified in the law. It is possible to impose a fine in accordance with Article 20/r of the Environmental Law if the wastes that need to be thrown into blue bags and medical wastes that need to be thrown into red bags are collected without complying with the collection procedure or mixing them together. In the incident subject to the application, it was emphasized that there were medical wastes in the blue-colored plastic waste bins and the application of the relevant article is deemed appropriate. However, the penalty imposed by the administration, on the basis of another rule in the Environmental Law on mixing hazardous wastes is cancelled due to the absence of hazardous wastes⁴⁴.

5- Conclusion

Turkish environmental law is a field that is constantly renewing and developing itself in the line with jurisprudence and current developments. It is seen that generally accepted principles of environmental law are frequently emphasized in the judgements.

With the judgements evaluated as a result of the study of the jurisprudence, it has been determined that the following contributions have been made within the concept of Turkish environmental law:

⁴³ Council of State 6th Chamber Judgement, 19 February 2020, E. 2019/2525, K. 2020/2151 (Lexpera).

⁴⁴ Council of State 14th Chamber Judgement, 12 February 2015, E. 2013/5229, K. 2015/1133 (Lexpera).

- (1) Judgements of the Constitutional Court are significant in terms of laying down the basic principles on the subject and clarifying the issue of which priority will be given in case of conflict of constitutional rights. There are not many judgements appealed to the Constitutional Court on the right to live in a clean and safe environment. Because of this reason, only a limited examination could be made on this issue. However, it is seen that the right to live in a clean and safe environment and well-being of people have priority, especially to the right to property.
- (2) As a result of the fact that there is a section of the Turkish Criminal Code on “Crimes against the Environment”, there are also criminal judgements on the subject. The fact that even imprisonment could be imposed in case of a crime against environment increases the deterrence in this matter.
- (3) The Council of State contributes to reform of the current provisions that are regulated in Environmental Law and other legislation in the line with the cases brought before the court. From the judgments of the Council of State evaluated in this study, it has been seen that especially the polluter pays principal, along with other principles, were emphasized a lot. In addition, the Council of State also discusses the administrative sanctions that are authorized in the legislation as to whether they are appropriate or not; if they are not, then the Council of State amends some provisions.

C) IDENTIFICATION OF LEGAL GAPS AND SHORT-COMINGS IN LEGISLATION AS WELL AS IN LEGAL PRACTICE

1- Legal Gaps in Turkish Relevant Legislation

The legal framework of the issue of the environment was started to be identified with legal provisions in the 1970s along with urbanization in Turkey. The 1982 Constitution and the Environmental Law are the main sources of “Turkish environmental law”.

a) Complexity of Applicable Law

Despite its emergent character, there is a quite large and comprehensive body of environmental legislation in place and each day new regulations are incorporated into it, within the scope of adjustment to the regional and international conventions and EU Directives. However, the legislation applies to numerous sectors and institutions; it has a complex and convergent structure. The number of institutions authorized by regulations and other legislations are very different institutions and organizations, which causes a mess in terms of ownership of environmental problems and in institutional structure.

As such a complex and contradictory body of environmental legislation is in force, various judicial bodies are authorized to address the legal disputes from the Constitutional Court, the Court of Cassation Criminal Chambers and the Council of State, as well as other national trial courts. When it comes to sanctions applied by administrative authorities, while the MoEU, metropolitan municipalities and other municipalities have the power to implement administrative sanctions, criminal sanctions are applied by criminal courts if the action constitute a crime against environment.

b) Evaluation of Turkish Criminal Code

Two different types of crimes have been included: "deliberate pollution of the environment" (Turkish Criminal Code, Article 181), and "unauthorized introduction of waste into the country " (Article 182). In the first paragraph of Article 181, in order to commit the crime of "deliberate pollution of the environment" , the waste or residues must be introduced into the soil, water or air in violation of the established technical procedures, and the act harms the environment. At this point, it should be noted that the crime was defined in a way to mark the criminal behaviors exhaustively but that demarcation weakens the legal protection because it is so specific.

Designating the crime as a crime of free will against the environment, including the related behaviors such as illegal processing, storage, transport, disposal of waste and residues, could also ensure that different acts that could cause pollution were included within the scope of the definition of the crime. Additionally, designating the crime as a definite crime of danger also creates difficulties in proving the causal link. In terms of a strong legal protection, the crime could have been regulated as an abstract crime of danger which would give more discretion to the judges of the criminal courts.

On the other hand, the principle of universality is accepted by paragraph 1 of Article 13 of the TCK for crimes of environmental pollution. It is one of the crimes that can be followed regardless if the perpetrator is not a national of the Turkey or did not commit a crime in that Turkey's territory or against its nationals, or if Turkey's own national interests are not adversely affected. Turkish national courts can exercise universal jurisdiction when the state has adopted legislation recognizing the relevant crimes and authorizing their prosecution.

Briefly, according to the nature of the dispute on the environment, a constitutional judgment, criminal trial or administrative judgment are trying to fulfill the necessity of legal rules. In some situations, more than one of them have power to decide on the violation and implement sanctions.

c) Evaluation of the Environmental Law

As emphasized above, Environment Law No. 2872 took effect at a time when the environmental problems were starting to be perceived in Turkey, just after the regulation of the right to the environmental under the 1982 Constitution. However, due to rapid growth of environmental problems and the increasing importance of the environment over the time, it became necessary to do some amendments and add new regulations to it in order to increase the effectiveness of the statute, which was unable to meet contemporary needs.

Although the Zero Waste Regulation (Official Gazette Number 30829, 12 July 2019) is extremely vital in terms of preventing the release of plastic wastes to the environment, only administrative sanctions are permitted in case of violation. This undermines the effectiveness of the regulation in the long term. As the zero waste system becomes more settled, necessary amendments must be made and more effective sanctions must be imposed.

Another significant national instrument is the Water Pollution Control Regulation (Official Gazette Number 25687, 31 December 2004). According to its sanctions provision, those who act against the prohibitions and do not fulfill the specified obligations are given additional time to fix the situation and if he/she fail to fulfill the

requirement at the end of this period, the activities are partially or completely stopped by the authorities as specified in the Environment Law, and the administrative penalties specified in the same act are imposed by the competent authorities. For more effective sanctions, it is suggested to make reference to the criminal legal regulations.

Additionally, some legal deficits arising out of the destruction of the marine environment which surfaced and drew attention in last ten years have become current issues in respect to the subject of this project. It has been summarized in the following paragraphs.

2. The Problem of Plastic Wastes in Turkish Legislation and Shortcomings

a) Lack of Explicit Definitions

First, of all, there is no particular legislation serving the purpose of protection of the marine environment in Turkey. In connection with this fact, the term “marine waters” is not defined in Turkish law. In spite of the very general definition of “environmental pollution” in the Environment Law (Article 2)⁴⁵ water pollution is not referred to, with the exception of the Regulation on Control of Water Pollution of the MoEU. According to this regulation, water pollution means the discharge of material or energy wastes that cause negative changes in the chemical, physical, bacteriologic, radioactive and ecologic properties of the water source and that cause direct or indirect preventive decomposition in biological resources, human health, fisheries, water quality and utilization of water for other purposes. The definitions of pollution in both regulations are not contradictory; on the contrary, they are quite similar.

Second, there is no definition or implementation of “marine protected areas” in the Turkish environmental law. The length of protected coasts in Turkey is 1865 km (22%); while the total length of the coasts is 8592 km, excluding islands and islets. However the amount of marine protected area is not known since all marine areas are not clear. In order to reach the target of 10% protection for marine and coastal areas within the scope of the *Convention on the Biological Diversity* and the *Barcelona Convention*. “Ecologically or

⁴⁵ According to the definition in the Environment Law, environment pollution refers to all kinds of negative effects that occur in the environment that may disturb the health of living things, environmental values and ecological balance (Article 2)

Biologically Significant Marine Areas (EBSAs)” were determined in the Mediterranean Region and these areas were acknowledged in the *Convention on the Biological Diversity* meeting. Also “the national system of marine protected areas” was established for eliminating threats to marine biodiversity in Turkey.⁴⁶ Furthermore, the Draft Law on the Conservation of Nature and Biodiversity provides a definition of protected area which covers marine protected areas. Steps are required to be taken to enter the Draft Law into effect upon receiving the comments of the concerned parties and NGOs.

Third, the term “litter/garbage” is not used in the Turkish environment legislation. All types of waste - “solid waste”, “domestic solid waste”, “hazardous waste”, “plant waste”, “medical waste” and “plastic waste” are the parts of practice. Similarly, there is no definition of plastic waste, but all regulation prohibits single use plastics in Turkey. Likewise, there is no specific regulation on prevention of plastic waste on shore, coasts and in territorial water.

The *Regulation on Control of Taking Wastes from Ships and Control of Wastes*, published in Official Gazette No. 25682, 26 December 2004, is only wthe one which specifies the rules and procedures concerning the installation and operation of waste acceptance facilities by the operators s and the waste receiver ships, in order to prevent the waste generated by the ships under the marine jurisdiction regions of Turkey and the load wastes being discharged into the sea and to protect the marine environment but not the plastic waste specifically. In accordance with this regulation, “waste” means the wastes generated by ships and load wastes; the “wastes generated by ships” means all the waste that is generated during the normal activities of a ship and that are within the scope of ANNEX I, ANNEX IV and ANNEX V of MARPOL 73/78, including sewage and all waste other than load waste and the waste related to load as defined in the regulations concerning the implementation of ANNEXV of MARPOL 73/78.

b) Lack of the Ecosystem Based Management Approach

There is no express provision in Turkish environmental law requiring application of an ecosystem-based management approach though protection of ecosystems. Ecosystem-

⁴⁶ National System of Marine Protected Areas, 2009-2014, accessed 20/11/2020 <<http://www.mpa.gov.tr/Default.aspx>>

based management practices need to be considered beyond the realm of protected areas and involve all the users that can have an impact, among which the private sector and the managing bodies at various levels, particularly related the common threats of marine plastic litter. Lack of an ecosystem-based management approach results from the ignorance of ecosystem sensitivity when making decisions by policy makers which might have adverse effects on the environment.

Receiving criteria for environment-based discharge have not been determined or published, which is regarded as a gap in the legislation. In this context, review the Regulation on Water Pollution Control or make the necessary arrangements by a new regulation to be issued.

c) Lack of the polluter pays approach

Turkish legislation does not include any reference to the principle of polluter pays which results from the failure of private companies to take the responsibility for their own plastic pollution.

d) Marine litter

Marine litter is caused by solid waste material, in particular, plastics. For this reason, the MoEU would have the principal role for controlling marine litter. Specifically, the responsible bodies under the General Directorate of Environmental Management are the Head of the Marine and Coastal Management Department and the Head of the Waste Management Department.

The General Directorate of Environmental Management is responsible for monitoring and control of waste reception and disposal from ships also. These activities are conducted by the Ship Waste Monitoring System that is within the competence of the MoEU.⁴⁷ However the Ministry of Agriculture and Forestry has joint responsibility for waste collection from ships in accordance with the Regulation on Reception of Waste from Ships and Waste Management (2004). In addition, according to the Law of Metropolitan Municipalities (5216), the large municipalities are responsible for the collection, disposal

⁴⁷ Ministry of Environment and Urbanization Turkey, Circular 2011/02, no. 2429 dated 5 August 2011, accessed 20/12/2020 <http://www.cygm.gov.tr/CYGM/Files/mevzuat/genelge/Gemi_Atik.pdf>

and treatment of plastic waste from the sea. Additionally, the Coastal Guard Command has enforcement responsibilities under the Law on the Establishment, Function and Responsibilities of the Coastal Guard Command.⁴⁸ However this multiple organizational structure occasionally makes the job-share difficult between institutions in practice.

e) Complexity of Competent Authorities

The main weaknesses in the existing system are lack of coordination among the different institutions, existing legislation provides for conflicting duties among the different agencies, gaps and ambiguities, lack of adequate participation by stakeholders and local ownership, lack of transparency and information on existing projects and undertakings, a lack of a national data base, inadequate completion and updating of high-level plans, and inadequate basin-wide ecosystem approach planning.

Daily/weekly/monthly/yearly data are available, especially concerning marine litter, in Istanbul. The most significant gaps in the legislation are the inadequacy in mainstreaming the data collection system, lack of mapping, and weak cooperation between the municipalities and the MoEU, and lack of sharing data with public.

As a positive step, “The Project on the Preparation of Marine Litter Action Plans” was carried out to control marine litter, and the “Istanbul Marine Litter Action Plan” were drawn up within the scope of the project to ensure an effective struggle with marine litter. With the aim of filling the legislative gap, a Draft Legislation on Marine Litter Management was developed within the scope of the project, which aims at ensuring marine litter action plans are put into practice in all coastal provinces by the year 2018.

Also as an effort to control the wastes in coastal areas, the status quo of the waste management in the 81 provinces was analyzed, and the National Waste Management and Action Plan (2016-2023) was developed with the aim of presenting the methods to collect wastes separately at the source, as well as to recycle, recover and discharge the same.

Implementation by port authorities pursuant to commitments made within the scope of Annex-5 of IMO’s MARPOL 73/78 Convention, the Barcelona and the Basel

⁴⁸ Law on the Establishment, Function and Responsibilities of the Coastal Safety Command, accessed 20/10/2020 <<https://www.mevzuat.gov.tr/MevzuatMetin/3.5.20169743.pdf>>

Conventions are present. (Sailing vessels are provide 24 hours' notice of waste in advance of their arrival in ports) Referring to Environmental Law, Port Law and Port Regulation play an implementing role for the prevention of pollution of marine environment by wastes from ships such as marine litter/bilge/sludge.

Even though the Waste Management legislation is not directly related to the prevention of marine litter, it is designed to avoid introduction of all litter to the sea. The MoEU has turned its efforts towards minimization of wastes, and even tends to implement its zero waste policy. However, there is still needed to comparable and clear data being shared with public for testing the success or the failures of the zero waste policies.

The national legislation concerning waste management is comprehensive and includes coastal and marine areas. According to Article 8, entitled "Pollution Ban," of the Environmental Law No. 2872: "discarding, storing, carrying or disposing any sort of waste and debris directly or indirectly to the environment in violation of standards and methods specified in applicable regulations, or being engaged in similar activities is prohibited. In cases where there is the possibility of pollution, the authorities affected are responsible for preventing such pollution and in cases where pollution has occurred, the polluter is obliged to take the necessary measures to stop, eliminate or reduce the impacts of the pollution." However, it is necessary to interpret the Turkish Environment Law and other regulations as to contain plastic wastes more functionally and effectively by administrative authorities in practice with aim of filling the gaps aforesaid.

f) Garbage Inport

As another factual problem, intake of plastic waste by importation from European Union countries to Turkey has increased excessively, particularly in the second half of the 2000s. On the one hand, while continuing the fight against plastic waste imports by legal regulations and several useful projects conducted by, not only NGOs but also MoEU itself, rerouting of the wasted to Turkey undermines all struggles on the other hand. Figures by Eurostat and Greenpeace Mediterranean also show that Turkey's plastic waste imports have been on the rise, in particularly during past two years (Greenpeace, May 2020).

Unfortunately, it seems difficult to become a zero waste country by importing plastic waste. Uncontrolled import of plastic waste would increase Turkey's problems which will not be overcome by the existing recycling system. The piles of rubbish disclosed by media (which are under investigation by criminal court) have shown the source of the tons of plastic waste and the procedure how they are legally allowed to enter into the country. Their exact components should have been examined by national competent authorities and the public should have been informed of those steps. It is expected that the MoEU will restrict and inspect the importation of plastic waste and the government should urgently review its importation policies by more transparent mechanisms.

D) ANALYSIS OF MODELS OF CORPORATE SOCIAL RESPONSIBILITY (CSR) OF COMPANIES WITH REGARD TO PLASTIC WASTE MANAGEMENT

1- General

In Turkey, despite of the gradually increase in CSR projects conducted by companies in order to improve the welfare of public in last ten years, companies focus particularly on education, health, social support, culture, and arts while the environmental issues stay in the background. Among these, the number of projects aimed at reducing the release of plastic wastes directly or indirectly to the nature is considerably low, as we concluded in our research on CSR. It has also been found that the awareness of the CSR activities carried out by the business world has increased significantly. For companies conducting CSR projects, the education field constitutes 38 percent of the CSR projects carried out within 2018. Environment comes second with 14 percent, social support with 13 percent and culture-arts projects with almost the same level of 12 percent (INGEV, 2019).

Among these, as will be seen below, approximately hundred percent (100%) of the companies work with NGOs, while only seventy-one percent of the NGOs chose the private sector as their main stakeholder. This is the case for all private sector companies implementing their programs with NGOs and development agencies, with other stakeholders such as organizations and bureaucrats from Europe (Responsible Impact Project, 2020). The results show us that there is still a gap between the CSOs and private sector partnerships in general. NGOs had to find companies running those programs

similar to their solutions and should be more aware of the private sector to find solutions that involve the private sector in its activities.

Our team has identified companies with domestic or foreign stake holders on the issue of plastic waste to investigate CSR projects. Under the identification, the research completed by Capital magazine that was published in 2018, 242 professional companies have been identified and the report on the assessment of CSR activities focuses on those. The selected companies were contacted by e-mail between August and September 2018 and were invited to share information on their CSR projects. Unfortunately, just a few of them responded to this invitation.

In this way, the information related to the CSR of nonresponsive companies has been obtained through their web sites (as much as they preferred to share with public). However, although there is some information on CSR projects on the web pages of many companies, the project outputs of those are not shown. It is hard to reach any information on the results or returns of plastic waste management systems or projects or more broadly environmental management.⁴⁹

2- Zero Waste Management Action Plan by MoEU

Legal and structural changes were implemented gradually in last two years within the scope of the Zero Waste Management Action Plan by MoEU, which comprise the 2018-2023 period. Under the project, legal changes have already been made which have been already evaluated under the *Domestic Environmental and Waste Management Law* in our report. However, the action plan of MoEU touches with the shareholders of private sector inevitably.

⁴⁹ KOÇ Group shared a Report on Sustainability including the environmental policies, commitments for 2020 to end the single-use plastics which will be examined below (<https://cdn.koc.com.tr/cmscontainer/kocholding/media/koc/05surdurulebilirlik/raporlar/surdurulebilirlik-raporu-tr/koc-grup-surdurulebilirlik-raporu-2019.pdf>); Under the KOÇ Group, the Arcelik and Beko have environmental policies with some commitments on reducing the use of the single-use plastics and new technology products to reduce plastic wastes (<https://www.arcelikglobal.com/tr/surdurulebilirlik/gezegeni-yilestiren-teknolojiler/plastik-kriziyle-mucadele/>); Coca Cola Turkey has been one of the companies that reglied by email, however they did not give the results of their program of “no waste world” (<https://www.coca-colaturkiye.com/surdurulebilirlik/atiksiz-bir-dunya>). The only proper response has been delivered by PAGDER Turkish Plastics Industrialists’ Association which was about a CSR project for production of plastic kennels for street dogs by using the plastic wastes which will be explained below (<http://www.yuvayadonusenplastikler.com/eng/>) (accessed in 22/12/2020).

The action plan supports waste management as a philosophy that involves preventing the waste, using the resources more efficient, reviewing the reasons for waste formation, preventing or minimizing waste formation, and collecting and recovering waste at source separately. The Zero Waste System is a 7-step roadmap consisting of steps that companies, institutions or organizations use. The first step is the determination of focal points to identify the people who will be responsible for the establishment, effective and efficient implementation, monitoring, information flow and reporting of the zero-waste management system in the organization.

These are the people who will lead the teams to ensure success of the zero waste management. The second step is the determination of current situation that when applying the Zero Waste Management System in any organization which will be easier for people to determine where they are in waste management and analyze their current situation. Third, is planning – in this stage the institution-specific deadline plan is prepared based on the current situation. Fourth, is the identification of needs and supply. The Zero Waste System is applied in the institution by taking into consideration each unit in the institution (offices, refectory, infirmary, etc.) and all the equipment needs to be identified, listed and provided before the application.

Fifth step is education and awareness, that after the inventory of equipment is completed, practical training and information studies are conducted for the target audiences before the application. The sixth step is application where the supplied collection equipment is placed at convenient points within easy reach of personnel. Information banners designed for the equipment are hung on the equipment that they can be easily seen. Attention should be paid to the color scale of the collection equipment and promotional materials. The last step is reporting. At this stage, monitoring is carried out by the team in order to evaluate the effectiveness of the application and, if any, defective aspects of the application, deficiencies or parties that are to be developed are identified and measures are taken. During all these steps, private sector is supposed to be supportive for the process.⁵⁰

⁵⁰ Zero Waste System Installation, accessed 20/11/2020 <<http://zerowaste.gov.tr/en/zero-waste/zero-waste-system-installation>>

It is needed to be kept in mind that the zero waste policy is quite new, therefore, it is very early to conclude or observe the results in respect of plastics waste reduction. But at the end of first period (2018-2023) the policy must be well established in public institutions, terminals (airport, bus terminal, train station, etc.), educational institutions (universities, schools, etc.), shopping centers, hospitals, and fun and rest facilities (hotels, restaurants etc.), Big business implementation is in place and aims to put these programs into practice all over Turkey.

3- The Plastic Waste Projects Conducted by Companies Under the CSR

“Plastics Transforming Kennels” is the CSR project implemented by the Turkish Plastics Industrialists’ Association and was organized with the support of the private sector as well as institutions such as municipalities and universities. Many companies sponsored and undertook the implementation with the leadership of companies such as Beno Plastik, operating in Yalova (BASF, Arçelik and TÜYAP, Eurotec Engineering Plastics, Kaan Air, Tisan Engineering Plastics, Nüve Plastik, Akay Stand, Şenmak, Gema Polimer, Hürmak Makine, and Ser Resistance) (PAGDER, 2020).

The project was organized by PAGDER-Plastic Industrialists’ Association on 18 February 2014. The aims of project are to avoid unnecessary using of resources, separation on origin of waste to reduce waste and providing recycled material as raw material for reuse. At same time, it is encouraging the use of 100% recycled plastic for use as homes for who are living on the street. According to the information given by the association (by email), the project that has been carried out since 2014, they recycle waste plastic to provide cat and dog kennels and donate to various shelters for street animals. In February 2014, 58,912 kg of waste plastic have been recycled since the beginning of the project and 2104 homes were provided for our street animals. The waste collection authority is the municipalities. Therefore, both activities on recycling waste and promoting public awareness about sorting plastic waste are carried out.

4- Koc Group (Arcelik)

In the recent activity report of the company, within the framework of the "Environmental Roadmap" created in 2019, a "Commitment to Terminate Disposable Plastics" has been

implemented in Koç Group to be in effect the end of 2020. Arcelik-LG recycled 300 thousand plastic bottles using LEOPET raw material for the first time in its "industry" in 2019. The world's first synthetic microfiber filtration system washing machine (planned to be mass-produced at the end of 2020), which removes more than 90% of microfibres from water dumped into oceans and seas.

As to other productions, a washing machine and washer-dryer boiler produced with 60 recycled pet bottles per product, furnace plastic materials where plastic wastes are produced by recycling products such as waste fishing nets that threaten life in the seas, refrigerators using bioplastics obtained from soy, corn and eggshells are some of the Arcelik products produced with a sustainability approach. Additionally, R&D studies were completed for the first use of recycled LEOPET plastic raw material, which has an Arçelik patent, in air conditioners, and a total of 300 thousand pet bottles in 30.000 air conditioners were recycled in 2019 (Koç Group 2019 Report).

5- Sabanci Group- TUDAV Joint Project

It appeared in the press that the special protection zones determined by the Turkish Marine Research Foundation (TUDAV) and beaches have been cleaned from the plastics with the participation of P&G and Carrefour SÁ employees, TUDAV officials and volunteers during the activities in 2019. In this frame, 27.8 kg of plastic waste, 4.6 kg of metal waste, 1.3 kg of glass waste and 6.3 kg of other wastes, together with a total of 40 kg waste were collected for recycling. In addition, Fairy, Carrefour SÁ and Turkish Marine Research Foundation (TUDAV) use the slogan “Fairy Bottles Made with Recycled Beach Plastic” to draw attention to waste plastic in the sea and to ensure that consumers approach the products they use with this sensitivity. Thereby consumers only need leave the empty bottles at the recycling machines at 611 Carrefour SÁ stores in 53 provinces and receive discount coupons in return, thus contributing to recycling. “Fairy,” the trademark bottles to be used for the campaign, are made of 100 percent recycled plastic. Ten percent of recycled plastic is collected from oceans, lakes and rivers (Business World Global, 2020).

6- Mavi & Coca Cola

It appeared in the press that Coca-Cola Turkey and “Mavi” (textile trademark) prepared a program of recycling pet bottles, consists of nine different T-shirts made from recycled PET, cotton or 100% organic cotton. Plastics used in the production of t-shirts were collected with the “KOLLEKT” application, which was implemented as a pilot in Kemer (Antalya/Turkey) with the cooperation of the Coca-Cola Foundation, Nature Conservation Center (DKM) and the United Nations Development Program (UNDP) to support a society-based recycling. Coca-Cola, together with its bottler partners, made a commitment to make all of its packaging 100% recyclable by 2025 and recycle all its packaging by 2030 (Coca-Cola Turkey & Mavi, 2020).

7- Mercedes Benz-Turk

According the information on the company website, Mercedes-Benz Turk has decided to stop the use of single-use plastic throughout the company as of October 2019. In this context, drinking water needs within the company were met with special treatment

systems and the use of glass cups and glass bottles instead of plastic. The goal behind this decision is to prevent the use of 350 thousand plastic bottles and approximately 15 million plastic glasses per year within the company. In addition to stopping the use of plastic cups and bottles, Mercedes-Benz Türk aims to reduce the consumption of disposable plastic in stationery products used in office areas by 25 percent with environmentally friendly and plastic-free alternative products. In this context, as of January 2020, the company commits not to buy products such as 100,000 transparent files, 4,000 plastic pens, 1,500 plastic key holders, straws, knives, forks in cafeterias and tea stoves, and turns to biodegradable and environmentally friendly alternatives. In addition, as of January 2020, the company removes the under-table garbage in the offices and positions 5 different sorting wastes: paper, plastic, organic / non-recyclable, metal and glass, in all locations (Mercedes Benz Media, 2019).

8- Cayeli Bakir Corporation

According to their website on waste management, with the slogan "Add Value to Nature", they collect paper and plastic waste separately at the source and send them to recycling facilities. As a result of this practice the company aims to protect the environment and the natural resources as they use all the income from wastes for social responsibility, primarily in the field of health. However, there is no numerical data (Çayeli Bakır, 2019).

9- TIMTAS Group

According to their website on the "Pugedon" project, in the last year, nearly 3 million pieces of plastic, glass and metal waste were collected and recycled. Two million of them were plastic bottles, 600 thousand were metal boxes and 300 thousand were glass bottles. The waste collected in waste collection boxes (mostly in shopping malls) called "Pugedon" is collected by the public officers of the municipality and sent for recycling. Within the scope of the project, 500 thousand street animals were fed in the last year. During this period, 15 tons of food was distributed. The food in the vending machines is also provided by the affected municipalities (Pugedon, 2020).

10- Dogus Group

Under the waste management policy identified on their website and the CSR report, 150 kg of plastic packaging has been collected and donated to the wheelchair project for the Association of Turkey Spinal Cord Injury. However, there is no numerical or location data (Doğuş Group CSR Reports, 2018).

11- Hayat Su

According to the information given on the water company's website, by producing an environmentally friendly bottle made of 100% recyclable materials and 50% recycled plastic, it made a commitment that all packaging will be 100% recyclable by the end of 2020. It also continues to produce 50% recycled bottles (Recycling HayatSu, 2020).

12- Levi's® & Association of Marine Clean (TURMEPA) Joint Project

According to the press news, a coastal clearing event was held on Kınalıada beach in September 2019. Kınalıada Kumluk Beach (Istanbul) was cleared of garbage at the event held within the scope of the "Zero Waste Blue" Project, which was carried out in cooperation with the MoEU. There, 26.5 kilograms of plastic, 13 kilograms of glass, 8.7 kilograms of metal, 17.5 kilograms of paper, 4886 cigarette butts, and 65.7 kilograms of garbage in total were collected. Garbage collected by separation was prepared to be sent to the solid waste disposal facility. At the end of the event, all data was transferred to the Zero Waste Blue database (Levis& TURMEPA, 2019).

13- Dell Technologies & TURMEPA Joint Project

The company and the association conduct coastal clearing and awareness activities. According to the press news, Dell Technologies, under the plan named "2020 Legacy of Good", which was first introduced in 2013, plastic collected from oceans and coasts were used in the packaging and protection materials of XPS 13 laptops. The company, which has recycled more than 1 million tons of used electronics to date, has used more than 45,000 tons of recycled plastic and other sustainable materials in new Dell Technologies products (Dell Technologies, 2019).

14- Yemeksepeti.com

According to the press news, as a food service on the internet, as of September 2019, they have consumed a total of 655 tons less plastic in the last three years with the slogan "Let's Protect Green" box to reduce the consumption of single-use plastic. In this way, they prevented the consumption of plastic, which corresponds to the consumption of an average of 4,100 people each year. In the first 8 months of 2020, 376 tons less plastic was consumed accordingly (Gıda Teknolojisi, 2020).

15- Global Compact Turkey, Business World & Sustainable Development Association and TUSIAD (Turkish Industry and Business Association)

According to the information given on the website of the project, three shareholders founded the "Business World Plastics Initiative" by taking the fight against plastic pollution one step further. By responding to the initiative's call, companies that want to be part of the solution announced that they will determine their plastic commitments by 2021. Within the scope of the Business Plastics Initiative, 26 companies announced their plastic commitments by 2021 and stated that they will be part of the solution. Companies included in the Business World Plastics Initiative are Akkök Holding, Anadolu Efes, Anadolu Group, Coca Cola İçecek, Deloitte, Elif Plastik, Eczacıbaşı Holding, Garanti BBVA, IC Holding, Kibar Holding, Koç Holding, LAV, Limak Holding, Migros Group Nestle Waters Turkey, organic Chemistry, PepsiCo, P & G, Sabanci Holding Presents NPR, Sütas, Unilever, WPP, Yaşar Yıldız Holding and Zorlu Holding. However, the data for the initiative were not indicated (Business Plastics Initiative, 2020).

16- Cif Project of “Clean as Beautiful”

According to the information given on the website of the Cif trademark, Kadikoy Istanbul, Eminonu and Karakoy (Istanbul), considering the circumstances of the Bosphorus coast, wanted to clean the surface waste from the sea by placing 20 Cif garbage catcher units into the sea. The waste collected by the Garbage Catchers will be separated and will be recycled and reused as appropriate. The goal is to collect approximately 110 tons of waste

per year with “Garbage Catchers”. However, the numeric results for the project were not indicated (Unilever, 2019).

17- Conclusion

Under the concept of CSR as a business model, the private sector contributes to its stakeholders and the public to influence society. Economic, social and environmental solutions are applied to shape the impact of CSR through multiple stakeholders. CSR practices vary among different stakeholders, but the purpose is the same. For example, business ethics, accountability, transparency, human rights, occupational health and safety, environment, gender equality, anti-corruption, sustainable development and innovation are often the targets. CSR actors often include more than one partner such as private sector, civil society and public partnership, depending on the activities carried out.

The social, environmental, ethical, human rights and consumer rights adopted in the policies and the participation of stakeholders also define the concept of CSR completely. It seems that the meaning of CSR is not clear in the Turkish business world since the concept of CSR is a concept is relatively unsettled in Turkey when compared with Europe. Private sector organizations in Turkey often undertake CSR, but the CSR strategy and policies, do not show the same performance in a multi-stakeholder approach (Responsible Impact Project, 2020).

When looking at the CSR projects of companies in Turkey as counted above, issues aimed at compensating for the outputs that cause harm to the ecosystem are quite in the background. The common feature of successful CSR projects in this regard is that they are jointly conducted with non-governmental organizations who are active in environmental issues.

On the other hand, it is very difficult to get information about the outcomes of the CSR projects. However, issues such as the recycling of wastes generated as a result of the production processes, the consumption of final products and the elimination of the damage caused by the company should be the area of biggest responsibility for the companies. For example, waste released by factories to the soil, air and sea during production is the primary responsibility that must be controlled during production.

Likewise, as a result of the rapid advancement of technology, hardware waste (out of use batteries, mobile phones) and packaging of food and cleaning products are the main causes of environmental pollution after use. Considering the aspect of all these environmental damages that put our future at risk, companies urgently need to direct their areas of responsibility to these issues. Therefore, the data obtained at the end of these processes should also be shared for transparency. The absence of such a return gives the impression that this follow-up has never been done (CSR Reference Study in Turkey, 2019).

IV) CONCLUDING SUMMARY OF THE REPORT

First, of all, the Turkish environmental legal system is very comprehensive with respect to national and international law. Various definitions of pollution in different legal instruments are not contradictory. However, there is no legislation serving the primary purpose of protecting the marine environment in Turkey and no certain definition related pollution arising out of the plastic wastes. This legal gap creates implementation problems occasionally related to the Barcelona Convention and its Protocols.

There is no express provision in Turkish environmental law requiring application of an ecosystem-based management approach through protection of ecosystems. Lack of an ecosystem-based management approach results from the ignorance of ecosystem sensitivity, when making decisions, by policy makers which might have adverse effects on the environment and brings lack of coordination between public/private shareholders and NGO's.

To control waste in coastal areas, the status quo of the waste management in 81 provinces was analyzed by municipalities, and the National Waste Management and Action Plan (2016-2023) was developed with the aim of presenting the methods to collect wastes separately at the source, and to recycle, recover and discharge the same – which is encouraging. Daily/weekly/monthly/yearly monitoring activities for the national and international marine waters of Aegean and Mediterranean Sea have been conducted for a long time by TUBITAK on a very regular basis. However, the outcomes are not shared

with the public which is another information gap. The inadequacy in mainstreaming the data collection system, lack of mapping, and weak cooperation between the municipalities and the MoEU are accompanying issues. Since there is no legal obligation for public/private shareholders to publish the pollution data, getting information and analyzing the successes or failures of implementation is not possible, so that makes it hard to take measures directed to the possible failures.

The national legislation concerning waste management is comprehensive and includes coastal and marine areas. According to Article 8 of the Environment Law No. 2872, entitled “Pollution Ban”: “discarding, storing, carrying or disposing any sort of waste and debris directly or indirectly to the environment in violation of standards and methods specified in applicable regulations, or being engaged in similar activities is prohibited. In cases where there is the possibility of pollution, the authorities concerned are responsible for preventing such pollution and in cases where pollution has occurred, the polluter is required to take the necessary measures to stop, eliminate or reduce the impacts of pollution.” However, executive authorities including jurisdictional powers are expected to interpret the Turkish Environment Law and other regulations as to contain plastic waste more functionally and effectively by administrative authorities in practice with the aim of filling the previously-mentioned gaps.

As another factual problem, the intake of plastic wastes as imports from European Union countries to Turkey has increased excessively, particularly in the second half of the 2000s. Figures by Eurostat and Greenpeace Mediterranean also show that Turkey's plastic waste imports have been on the rise, in particular over the past two years, contrary to the international commitments (Greenpeace, May 2020). The uncontrolled import of plastic waste would increase Turkey's problems which will not be overcome by existing recycling system. However, a positive step taken by the Ministry of Commerce is the

prohibition of importation of polyethylene wastes by May 2021 that the results might be observed in future months.

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