IZMIR GARBAGE PROBLEM - HARMANDALI AND YAMANLAR -

Waste can be defined as solid substances that are disposed of because of domestic, commercial and industrial functions and should be removed regularly due to environmental and human health as well as other social benefits. Also, the waste is described as "harmful substances that are disposed or dropped in the environment as a result of any activity" in the environmental law numbered 2872, which was first dated 1983 in the legislation of our country (Environmental Law, 1983).

Waste can be classified depending on various factors such as consumption, production, chemical, physical properties. According to this, the wastes are generally; can be classified as solid wastes, liquid and gas wastes, packaging wastes. Solid wastes; Substances that need to be disposed of regularly by the manufacturer in terms of undesirable human and environmental health. Regardless of origin (domestic, commercial or industrial) waste; It can be expressed as losing its usefulness after the use of raw materials, fuels and water and hence the loss of financial value for the person (Read, 1999). According to the United Nations Environmental Programme (UNEP), solid wastes are described as "the substances the owner does not want, need, use, to be treated and removed."

Solid wastes as an environmental and human problem; In the waste cycle, it is directly or indirectly interacting with the environment and human from the moment they are produced to the final suspension phase. Solid wastes are directly involved with disease-maker or infectious substances in their content; Can negatively affect the environment and human health due to the fact that it is a source of nutrition and reproduction for other creatures, such as mice, flies, etc. (Güler and Cobanoglu, 1996; Tokgöz and Sarmaşık, 1982). The environmental impacts of solid wastes can be in biological, chemical and physical nature. Diseases such as leam, plague, cholera, dysentery, tuberculosis, rabies, malaria, which can be transmitted directly or with the intermediate animals, are examples of biological negativity. Leaking water and gases occurring in the areas of landfills cause chemical and biological negativity. Wastes that are irresponsibly left to the environment can give physical harm to humans. Inadequate cleaning and waste management practices and the relationship between environment and human health are clearly observed in the developing and/or developmental countries.

Solid wastes are divided into seven sub-sections when classified according to where they are formed. These are domestic solid wastes, industrial wastes, hazardous wastes, special wastes, medical wastes, agricultural and garden wastes, construction residues and debris wastes are indicated.

A) Domestic solid wastes are collected and transported with normal municipal service, can be disposed of in domestic landfill sites, recyclable by separation path, compost can be made or burned, domestic and industrial origin waste. Kitchen waste, packaging waste, Office trash, etc. (counts, 2012).

B) Hazardous wastes are divided into 15 classes according to the Hazard property regulation of the general principles of waste management: explosive, oxidizing, highly flammable, irritant, harmful, toxic, carcinogenic, corrosive, infectious, reducing reproductive ability, mutagenic, air, water or contact with an acid substances or preparations that release toxic or very toxic gases as a result of the treatment of wastes that have any of the characters listed above are ecotoxic waste (waste management Regulation of Principles, 2008).

C) Industrial wastes are wastes originating from industrial activities. It covers wastes formed during industrial processes and/or industrial processes (Sayar, 2012).

D) Agricultural and garden wastes are wastes and residues resulting from the production and processing of herbal and animal products. The amount of solid waste produced and their content properties are influenced by various conditions such as socioeconomic properties of communities, nutrition habits, traditions, geography, professions and climate (Palabıyık and Altunbaş, 2004).

E) Removal of special wastes is a special important waste. Radioactive waste, hazardous and harmful industrial wastes, paint, thinners, cleaning agents, batteries, etc. in this group (Palabıyık and Altunbaş, 2004).

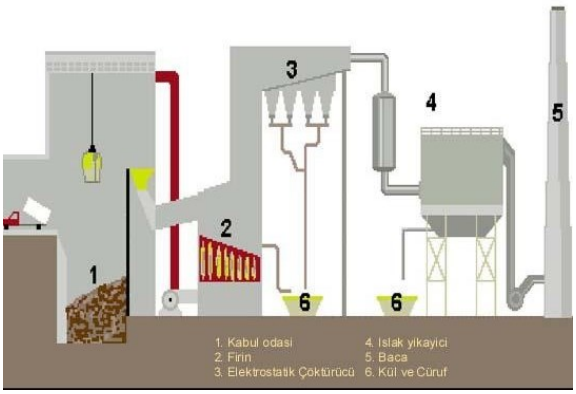
F) Medical wastes, according to the regulation that is 22.07.2005 dated and numbered 27555, "infections, pathological and cutting-piercing wastes arising from the units" (Regulation of medical Waste Control, 2005).

G) Construction residue and debris wastes are the resulting wastes that are caused by increased or destruction of any construction.

Waste types are not limited only with solid wastes. There are also liquid, gas wastes and packaging wastes. Liquid wastes express waste of hospital-sourced blood, dental wash water, dialysis machines juices, domestic-sourced cleaning water, sewage water, etc. (Karasu, 2013). Gas wastes are composed by nuclear power plants, industrial plant chimneys, combustion plants, use of fossil fuels for energy purposes, waste storage and composting areas, etc. (Karasu, 2013).

Another type of waste is packaging wastes. Packaging according to the European Union packaging and packaging waste directive; From raw material to processed product, in the stage of the delivery of a product from the manufacturer to the user or the consumer, the recycling and non-recycling of any material used for the carriage, preservation, storage and presentation of the sale products (European Union packaging Waste Control Regulation, 2008). Packaging wastes; Waste, except for production residues, used for the delivery of products or any material to the consumer or to the final user. It is also defined as a sales, secondary and freight packaging waste that is discarded or dropped into the environment, including in reusable packagings.

The transportation and disposal of waste are divided into incineration, recovery, regular storage, irregular storage, and compost. The elimination of solid wastes is the technique of deaeration of waste by the addition of oxygen in a reactor cell and ensuring high-temperature fragmentation. The recycling of solid wastes, including the concepts of reuse and recycling; The use of waste properties by using physical, chemical or biochemical methods to translate the components into other products or energy.



1. Admission Room
2. Oven
3. Electrostatic precipitator
4. Wet washer
5. Chimney
6. Ash and Slag

http://tekirdag.ormansu.gov.tr/Tekirdag/Files/Egitimler/2011%20sunumlar%C4%B1/sunum%20m%C3%BCd%C3%BCr-kat%C4%B1%20at%C4%B1klar.pdf

Composting of solid wastes is the conversion of organic-based solid wastes into the soil healing substance obtained by separating them with oxygen or oxygen-free environment. Regular storage is the most applied method for disposal of solid wastes. The cost is cheaper than other methods. Regular storage can be defined as a simple sealing of solid wastes, spilling into large areas, compressing and overturning into a natural biological reactor. It is mandatory to take the necessary collection, removal and disposal measures for the gas and the leaking water that will occur for regular storage.

http://www.sdergi.hacettepe.edu.tr/makaleler/Atik-Cesitleri-Yonetimi-GeriDonusumVeTuketici.pdf

The increasing urbanization and population growth in parallel with technological developments and industrialization increase the pressure on the environment of human activities both in our country and all over the world. In this process, the expansion in production and marketing activities inevitably increases the more intensive use of natural resources. The waste, which is accompanied by a continuously increasing tendency of consumption, threatens the environment and human health due to its both quantity and harmful contents. (Kaçtıoğlu and Şengül, 2010). The problems arising from waste in recent years are one of the most important environmental problems in our country. The amount of waste is also increasing in population growth, especially in our large cities, in parallel with the change in consumption habits, the composition of solid waste is rapidly changing. In recent years, the rapid industrialization and concentration of industrial zones in certain centers have led to increased waste quantities from the industry. In the coming periods, the number of human population and industrial facilities will continue to increase the amount of waste. In parallel with this, the increase in the number of waste problems in order to reveal already, the appropriate solution methods are already should be revealed. To solve the problems that will be happened in the future, we must find solutions to solve future problems at present.

Within the boundaries of Izmir Metropolitan Municipality, there is only one regular solid waste storage facility. This facility remains in residential areas and has reached capacity limits that are an important problem. On the other hand, the modernization of compost facilities established in the past, increasing capacity and numbers, prevented the use of more advanced disposal techniques than regular storage. The inability of the municipal municipalities to effectively parse the wastes at the source caused carrying the wastes to longer distances and has led to shortening the life of the storage facilities. The presence of a disposal facility within the metropolitan borders has been a factor that increases transportation costs. Considering the waste composition and waste disposal of Izmir, targets in developed countries and new legislation regulations in our country, a new approach to recovery and energy production is essential.

With today's data, it is possible to produce 250,000 m3 biogas per day and 400,000 kWh of electricity from this biogas in Izmir province domestic solid wastes. On the other hand, the surface area of 12,000 km2 and the distances reaching 190 kilometers between the district indicate that a large number of disposal units are needed. In addition to establishing regional facilities on the north, south and west axes, it is necessary to establish multiple disposal facilities in the region where more than 3 million inhabitants are defined as the former metropolitan area. Measures such as odor control, wastewater treatment, noise control should be taken to minimize the environmental impacts of new facilities. The minimum amount of waste to be stored after disposal procedures and the maximum level of energy to be produced should be targeted. It is of great importance that these facilities are planned to allow capacity increases, taking into consideration the increases in the amount of future population and waste. Furthermore, apart from domestic solid wastes, the inclusion of agricultural and animal waste, which is a result of the large agricultural potential of our province, in this disposal system will greatly increase the existing energy potential. On the other hand, the increasing amount of waste and its changing content will be able to make the thermal disposal methods feasible in the coming period. Izmir should take the necessary steps to move to a new waste management approach where domestic solid wastes are considered as a source and not as a problem, and for this approach, the administrative, technical and financial requirements of the city require long planning. For this, the areas where wastes will be collected should be positioned appropriately in Izmir. Yamanlar and Harmandalı, which are the subject of today's debate, are two of the most important agenda for Izmir. Whether their location is appropriate, they are still subject to discussion.

HARMANDALI WASTEYARD

http://bianet.org/biamag/diger/155679-harmandali-nin-bitmeyen-cop-kabusu

In 1992, the official name Harmandalı regular solid waste storage facility, which was opened to service, covers an area of 900000 m2. The area, which is 25 kilometers away from the city center, was used by Izmir Metropolitan Municipality as "out of town". The facility was called as Turkey's first modern garbage plant in its opening years. Because the waste was not piled up like in the wild storage. The garbage that came here was stored separately:

The domestic waste region,

The industrial waste region,

Hospital waste Region,

My memory mud zone,

Battery, etc. Waste region,

Leak Water Collection Zone,

Leak water sprinkler zone.

The current functioning of the municipality according to the information provided as follows; There are two types of waste coming to the 900 acres of landfill. Domestic solid waste, i.e. simple-quality garbage from the houses, domestic industrial wastes, i.e. the waste of products processed in factories, etc. These two types of waste are transported to Harmandalı with the municipal trucks. For recycling, the garbage in the facility without a healthy separation system is compressed with the work machines and then covered with soil. The earthed ground is recompressed with the work machines. But these actions are not fulfilled as necessary according to what the viewers say.

This facility has been used for 24 years, although it is planned to meet Izmir's need in 1992 for a minimum of 10-15 years. Noting that the garbage heap in Harmandalı, which became a problem, reached 100 meters in 2014, experts noted the presence of a serious landslide and explosion hazard. Moreover, as a result of the development of the city, the Harmandali, which remained within the settlement areas, has become increasingly threatening the health of the environment and human. It also makes the lives of people living there unbearable because of the fires in the dumpster and the bad smells spreading around them. The population of Harmandalı and the nearby settlements, which is 25 km. away from Izmir city center, at least 100 thousand people are intertwined with garbage. The fragrant citizens who afraid to open the windows and cannot walk on the road because of the smell, complain that this situation is still unsolved. The former headman of Metin Oktay Mahallesi in the town of Harmandalı Unsal Albaz, "What is the shortage of garbage. Now the big trucks are running fast and uncontrolled. It's not possible to walk here from their leftovers that caused the scent and the flies. All the children of this neighborhood pass through here, this is their school path. " He wanted to solve the problem now. Officials say that there should be precautions against methane gas jams and that the slippage of the height arising from this excessive storage should be taken into action immediately in order not to have a new Ümraniye.

http://dergi.aljazeera.com.tr/2014/03/01/cop-manzarali-hayatlar/

"What's the situation today?" When we asked the Metropolitan Municipality, "the capacity of the plant was largely filled by today." Metropolitan Mayor Aziz Kocaoğlu for the first time in May 2007, they tried to find a permanent solution to the Harmandalı dumpster, Izmir to build a modern solid waste disposal facility like in Europe announced. In October 2009, in the local press, the president explained that if there was no hitch, the dumpster would be closed within 24 months. In 2010, when the new facility was planned to be done, "we need to save the Harmandalı. Harmandalı filled his stomach. ' he said. He made one of the latest statements from his personal Twitter account in September 2013. The rehabilitation project for Harmandalı has been prepared, and the area has announced plans to make the city forest. According to the mechanical engineer Dr. Ali Kemal Çakır, whose academic work is about the Harmandalı storage facility, the garbage is stored in primitive ways. "It's not wild storage, but we can't call it a regular storage facility."

Because of the full landfill area in Çiğli-Harmandalı, a new place was searched for solid waste plant within the boundaries of Izmir. First, because of the reactions from the region in the village of Torbalı-Taşkesik one option was abandoned. Later, the location of the Yamanlar district of Karsiyaka region caused intense controversy, and environmental lawyers pressed the button for bureaucratic operations. "The choice of garbage plant is very important. In this regard, except for technical discipline that requires expertise in solid waste-garbage in all science disciplines that involve solid waste (garbage), public health, environment, geology, groundwater, agriculture, vegetation (flora), animal diversity (fauna), archaeology, etc., is clear that it is

necessary to take opinions from specialist universities, vocational chambers, and similar institutions and organizations and to discuss the subject in a satisfying manner. However, the decision to establish a solid waste-refuse facility in the Karşıyaka-Yamanlar region, which is suitable for the selection of the case with the subject process, was taken at the end of a process that was almost hidden from the public. As the district of Karşıyaka, the district of the town where more than 300,000 inhabitants of the city are located, a 10-minute distance from the center of the area as a solid waste (garbage) facility, the decision to be made without opening the discussion of the relevant scientific disciplines and the public is unacceptable ". There are reports prepared by experts from the Middle East Technical University and Hacettepe University regarding the location of the facility in Yamanlar, "according to these reports. Karsiyaka-Yamanlar region, the solid waste (refuse) plant is not a suitable place to be. The region is the place that has ecological value and contains a natural site and drinking water basin. It is wrong to bring environmental stress to such a region when there is no great necessity. This region may not be suitable for incineration due to ecological sensitivities. A solid waste plant to be established in this area will affect the two sub-water basins reaching the Gulf of Izmir. The property was determined to be incompatible with planning, urbanism applications in the same area of the city. The lawyers explained that the project will directly affect the citizens who live in Karşıyaka/ Izmir and said that the debate on this project is confined to the vicious political polemics. They argued that the decision to be made is appropriate to request the cancellation of the resolution regarding the planned landfill (waste) plant project. The debate is still ongoing.

YAMANLAR WASTEYARD PROBLEM

http://www.karsiyakahaber.com/haber/karsiyaka-yamanlara-kurulacak-copluk-mahkemeye-tasindi/1664/#sthash.nQ2gpmTz.dpuf

With the law passed by the parliament in the past days, the municipal administration who urgently attempted to implement the project did not even share where the region with high-level bureau clerk. Metropolitans announced 'latest technology, harmless to the environment, ' for the project, which appeared in Karşıyaka Yamanlar.

The project area that is carried out by the municipality in great rigor is located within the boundaries of Karsiyaka's Yamanlar village. The region which goes from the vicinity of the village of Karşıyaka municipality is located in the area of the cemetery, are one kilometer from the village and three kilometers from the city settlements. The road to Yamanlar Village is 400 meters from the old stone quarry area, which leads to the deep valley after a 10-minute walk. There are stables, and chalets in the area where other vehicles are not able to go except the terrain vehicles, where there are lush forests and beekeeping activities. Solid waste disposal plant project area covers 1 million 920 thousand square meters. It is registered as ' pasture ' in official records and has over 70 ' fields ' of private property and parcels in the area belonging to the treasury. Some citizens are in the territory of the expropriation zone, which some of them are still using with wire mesh.

A large part of the Metropolitan municipality's solid waste plant project area remains within the boundaries of Karsiyaka, while a part of the Menemen borders. There is also a creek bed in the area that coincides with the high sections of Menemen's former Emiralem resort. Sandıklı Creek is passing through the project area. The south of the area is the Dana pit hill, the north is Yanık hill, and Ovacık Hill is in the west. The area that extends to the vicinity of the

Havuc village ruins Mevkii of Emiralem covers a very wide area. The solid waste facility that was planned to built by the metropolitan municipality has not got any transportation route rather than the road for Yamanlar village, Yamanlar, and Karagöl Mevkii. However, this road that is from Emiralem is very narrow, broken and not preferred.

Izmir Metropolitan Municipality officials had meetings and in these meeting the planned to implement the plant project in Menemen that was moved to Karşıyaka Yamanlar. The project, which has been working on the selection of technology since 2005, was determined by examining close to 100 companies and technologies in the world. For the first time in Turkey, a high amount of waste is evaluated by fully automatic processing in the closed system. The compost unit will consist of anaerobic digester, control room, air control unit, separation plant, and waste acceptance area. The project, which will ensure the elimination of waste, will also allow the economic evaluation of the garbage. From the facility's output to the recycling industry, the raw materials, RDF, additional fuel, energy, and compost will be obtained. The biogas unit will produce electricity to meet the need of 250 thousand people. After electrical energy meets the energy requirement of the plant, excess energy will be given to the system in the region. Another output and distribution of the plant will be agricultural fertilizer.

Izmir Metropolitan Municipality Mayor Aziz Kocaoğlu did not give any information about the facility and the areas. In response to the harsh exits, Kocaoğlu said earlier, "of course, our citizens are right. The thermal power plant is likewise opposed. Because we have a Yatagan sample, which is not erased from any of our memories. But the country needs energy too. Because there's a lot of examples coming from the Umraniye dumpster to Harmandalı landfall. Garbage stacks come to mind. That's why they react. This is also a natural thing... Hopefully, this perception will change in Turkey after our solid waste assessment facility. Our facility is the first example for our country. In any province that uses the new technology we will use, there will be no problem with garbage place ". President Kocaoğlu said, "we found a place to waste storage space. There's no point in sharing where I found it. There will be riots there when I share. The garbage job is out of water in Izmir. Especially the district mayors, citizens and environmentalists, the water was removed. If you're against everything, then you won't produce garbage. Those who appeal instead of litter must find another place. I'll make my investment, I have no choice. "

Izmir Metropolitan Municipality has begun preparations for the new facility project years ago due to the inadequate capacity of the waste facilities technology in Çiğli Harmandalı. The boundaries of the growing municipality sought and found the place of solid waste disposal facilities to meet the needs of the city's northern and southern points. Menderes, Menemen, Bayındır and the industrial establishments in that region and the public garbage were planned to be collected in the south of Torbalı Taskesik village. With the appropriate view of the municipality of Torbalı, the work of the project started in Teskesik. Then the people and environmentalists who learned the project were revealed and cut Mayor Aziz Kocaoğlu's way, asked him to cancel the project. In the soil investigation studies carried out in Taşkesik, there were cracks in the ground. It was also determined that the area was rich in groundwater, and the level of underground waters was high. After the instruction of Culture and Tourism Minister Ertuğrul Günay, the report was prepared for the region. As a result of negative views, the project was suspended.

The Metropolitan municipality headed to the north after the debate. In the district of Menemen Ahıhıdır, there was a decision to change the plan for the area and its surroundings where the solid waste plant was used. The developments that led to the estrangements of the President Aziz Kocaoğlu later moved to the Minister of Agriculture Food and livestock Mehdi Eker by the AK party Menemen District President Arif Kuran. Eker visited Izmir. The region's agricultural soil, the construction of the plant needed to not be given the ' Soil Protection Board report ' was demanded. The Minister also approved the request and the governorship did not pass this project. Since then, the metropolitan municipality has been working on different places and alternative areas. Finally, he decided in this area.

The solid waste disposal facility that hid as a secret by Izmir Metropolitan Municipality Mayor Aziz Kocaoğlu, had the first reaction from near the village of Karşıyaka Yamanlar. The mayor of Karşıyaka, Cevat Durak, said that Egedesonsöz did not want to believe the idea of using the area for the project. Durak, "The idea of the facility to be made here is wrong. I don't understand Karsiyaka's hostility. This facility, which has been on the agenda for years, is known for its natural beauties without being taken to the quarrying area in Bornova, which can be filled in 100-150 years. It is not correct to try to bring the water resources where there is plenty of green space. I want to think that the news that's coming out is not true. I hope this kind of

information is a speculative explanation. I don't think the metropolitan has the idea of building this facility in a place like the Yamanlar, which oppose the gold mine in the same region and does not allow the digging of a land. This is truly unacceptable and incurable consequences. No one can imagine building a facility like this. The biggest mistake to be made to the city does not penetrate "he said.

http://www.egedesonsoz.com/haber/iste-kocaoglu-nun-sir-gibi-sakladigi-yeni-cop-alani-/82991

MY THOUGHTS AND COMMENTS

The underground spring waters that have found in the patches have an important place for the people and the nature of Izmir. Because the local people in the region are developing an economy based on agriculture and livestock, I believe that the biggest danger to the people in the area, the threat to groundwater. A waste center that will be located there, even though that is "closed" by municipality's term, smoke or overflow garbage will affect the groundwater negatively. Today's technology may be advanced, but I see that Turkey cannot use technology in a very qualified way if we assess it throughout our country. At the same time, it is not a good thing to destroy another area under the name of the new garbage storage center, as it is in no way to prioritize the garbage problem that is currently available in the Harmandalı. I couldn't figure out why a landfill was wanted in a way that is incompatible with the urbanism practices of an area with ecological values and a natural site and drinking water basin.

The location of the university, which will be opened in Yamanlar, is located close to the trash center. It is also close to places where people still live. This garbage center, despite all the precautions to be taken in terms of health issues leave a question mark in the mind of the person. l brings not only the scent and the fly, but also lots of negative effects.

According to the municipality, the facility will be the first in Turkey. Thanks to the closed system, the stink won't spread. The garbage will be separated on the tape without touching with hand. Energy from the gas from the garbage, fertilizer from organic wastes will be produced. On the other hand, we cannot ignore the positive effects that the municipality promises to provide with the garbage center. If it really is what it promises, it's a solution to a very big problem for Izmir but the choice of location is wrong. I couldn't understand the municipality's desire of destroying a valuable area of the city. As a result, because of having any solution rather than opening a new garbage center to solve the garbage problem, we need to open this center. However, this arrangement has to be done in accordance with the researches and caring about the "city". The problem of the garbage comes with many negativity, and I think that the problem should be solved as far as possible away from the "city" and nature should be considered, the city should not be refuted internally by its own garbage.

Didem Irem Eray

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