

## THE MEASURES AND REGULATIONS ABOUT WASTE EXPORTING

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### Abstract

With the development of technology and industry, people could easily supply any of tools to make easier their life. Moreover, they would like to possess more technologic ones. As a result of this, there are always too many old and useless tools which called wastes anymore. As well as this, companies, countries, factories and any other organizations are also act in the same way. Consequently, all of these behaviors cause the waste problems. Furthermore, countries ,particularly rich and developed ones, try to remove these wastes without paying any cost and facing legal regulations. For that reason, they tend to export wastes to poor and undeveloped countries. On the other hand, undeveloped countries do not have enough capability to recycle these wastes which are generally hazardous and detrimental for human life and environment. After all, international actors struggle with this problem to protect environment by taking measures. The Basel convention is the most essential international agreement to prevent and regulate exportation of hazardous wastes. As a result, this study tries to explain the situation about waste exportation and to examine the international regulations for preventing waste exportation to the third World countries.

Key words: waste export, hazardous wastes, and Basel Convention.

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## Introduction

In recent years, with developments in technology and mass production, a dangerous problem has emerged due to rising wastes across the world. Although it is necessary for people to consume goods to survive, this level of consumption and industrial production could result in hazardous waste. As well as this, electronic consumption also causes waste, known as 'e-waste', consisting of electronic devices such as TVs, computers and, home tools, which contains materials that are detrimental for the environment and human health. With the rise of hazardous waste, producers export them to reduce regulation and recycling costs. This is executed primarily by First World countries in the West such as the USA; they export the waste to Third World countries in order to limit any financial cost and harm.

Nevertheless, international agreements try to prevent this because, often, Third World countries do not have the equipment to recycle the waste without it having a dangerous effect. However, these measures are not effective enough to prevent and control the exporting of hazardous wastes to Third World countries.

This study will explain the difference between "waste" and "hazardous waste", and the concepts of "exporting these wastes" and "what measures have First World countries taken to control hazardous waste exporting to poor countries". Using these explanations, this study will also explain the effectiveness of the measures used to control hazardous waste exporting.

## Wastes and Hazardous Wastes

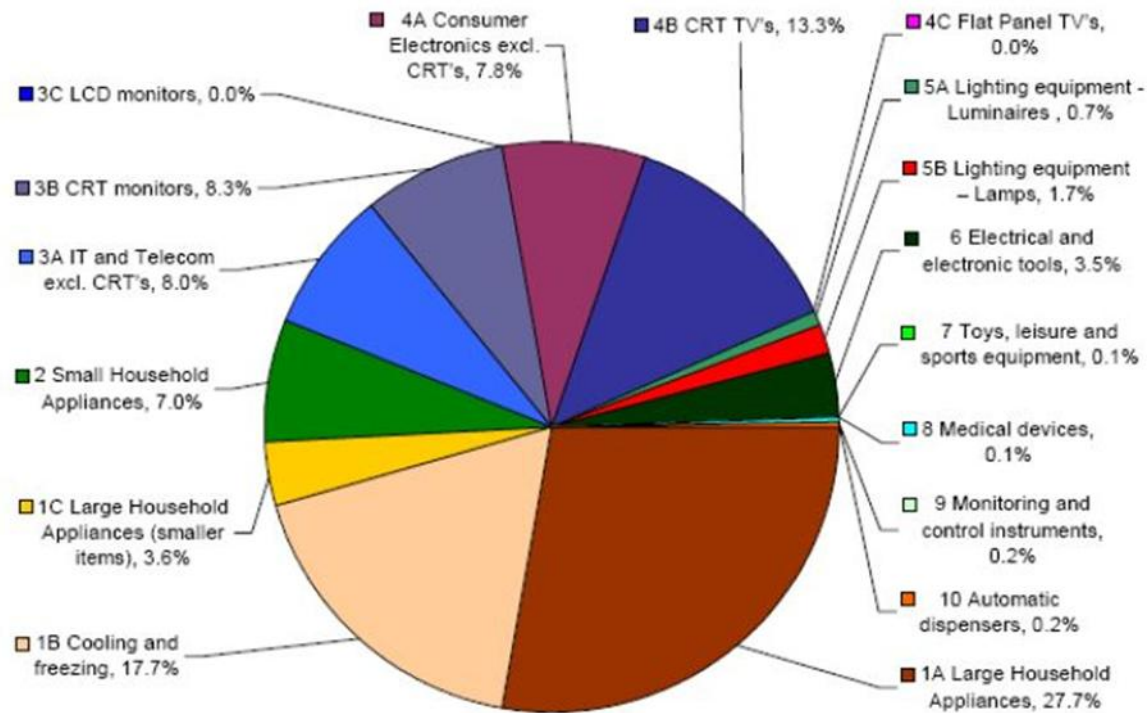
Initially, 'waste' was able to incorporate the idea of 'hazardous waste'. However, nowadays, 'waste' is the material leftover from necessary human consumption, consisting of the material not consumed that people throw out (Tenikler: p.4, 2007). For example, when people drink a bottle of water they do not drink the bottle, thus the bottle is the waste in the drinking process. The waste is worthless or it has little worth to use (Tenikler: p.4, 2007). According to Lipman, "Wastes are defined in the Basel Convention as substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law" (Lipman, 1999). Another definition holds that waste is the leftover material of the production or consumption process of industrial, commercial, and services operations that they would like remove from their activity area (Alyanak: p.199, 1994). However, wastes are classified as harmful or harmless (Tenikler: p.6, 2007).

Harmful wastes have detrimental effects on human health and the environment, and so the removal process must be conducted in a specific way to prevent any damaging results (Guler: p.245, 1995). Examples of harmful wastes are liquid, solid, and gas or radioactive materials are harmful to the environment and the environment's balance (Bayramoglu: p.6, 1995), since they have biologically, chemically, and physically flammable, toxic, and devastating effects. Therefore, these materials could be detrimental and fatal to human health and the environment (Guler: p.245, 1995).

On the other hand, harmless wastes are such as paper, glass, used water, kitchen, and food wastes, and do not have a detrimental effects on human health or the environment (Palabiyik: p.26, 2002). These wastes can easily be recycled without any high-tech process, and can be executed by local government's facilities (Zanbak and Tugal: p.6, 1997).

Moreover, there is another type of waste which originates from electronic tools such as household goods, hospital equipment, and industrial machines. This kind of waste is known as 'e-waste', and includes devices such as used televisions (Kaya, 2005), washing machines, and light bulbs (Ciftlik et al., 2009). With the development of technology, consumption habits have been

changing rapidly (Ciftlik et al., 2009). Tools that people bought just a few years ago are now considered out of date, and so new, economical, and modern products are demanded by consumers (Ciftlik et al., 2009). This high demand, and subsequent production and consumption process, causes more wastes than ever before. According to United Nation’s environment program, all over the world, there are about 20-50 million tons of e-wastes and the increase rate of e-wastes is three times more than other wastes (Burke, 2007). This graph below shows the distribution of e-waste in the EU.



(The distribution of e-wastes in EU 2005)(“Review of Directive 2002/96 on Waste Electrical and Electronic Equipment” Study No.07010401/2006/442493/ETU/G4, 2008)

Printed circuit boards (PCB) are rich heavy metals, containing around 30% metals and 70% non-metal materials (Ciftlik et al., 2009). PCBs contain 20% copper, 8% iron, 4% tin, 2% nickel, 1% lead, 0.2% silver, 0.2% gold, and 0.005% palladium (Guo et al., 2008). The the material in the e-wastes is ten times purer than the material in the mines (Bleiwas and Kelly: p.7, 2001). E-wastes are very valuable because they contain a high proportion of valuable materials such as gold, silver, platinum, and palladium, and contain heavy metals such as arsenic, and quicksilver (Bleiwas and Kelly: p.7, 2001). As well as this, e-wastes contain hazardous and heavy materials such as lead (Kaya, 2005)

Consequently, in general, wastes are considerably harmful for the environment and human health because of their detrimental materials. On the other hand, wastes can also have economic value because some such as e-wastes contain valuable materials which can be recycled. Therefore, the consumers would like to export the wastes to get rid of their harmful effects and to attain benefit from their recycling.

## **Hazardous waste exporting**

The principle of the transboundary movements of hazardous material was addressed in the Basel Convention (Tenikler: p.370, 2007). This convention promoted the idea that moving hazardous materials should be decreased and controlled because of dangerous results (Tenikler: p.370, 2007).

All over the world, the amount of hazardous waste is increasing rapidly, and the US and western European countries produce most of these hazardous materials (Caner and Akil: p.76, 2008). The elimination of hazardous materials has always been a necessity because the amount of materials is always increasing but this process requires high costs and high technology with a strict regulation (Blackman: p.118, 2001). This has caused waste producers to look for alternative locations to store waste, and so developing and undeveloped countries stored these materials for a great price (Hackett: 295, 1990). This hazardous waste trading is a good source of income for undeveloped countries (Caner and Akil: p.76, 2008). Approval of hazardous wastes trade by undeveloped countries; not be given the documents about the information of hazardous wastes; lack of technology and expertise for the removal of hazardous wastes; and itself “the movements and removal of hazardous wastes” described full of problem need that the transboundary movements of hazardous waste and removal of these wastes have to be a topic for international regulation (Hackett: 296, 1990).

While developed western countries are exporting their expensive technological products with their wastes and pollutions to undeveloped countries, they buy cheap labour and cheap natural resources from undeveloped countries (Redcliff and Woodgate: p.41, 1994). Consequently, although wealth stays in western countries, in non-western and developing countries, poverty, wastes and environmental risks are mounting (Tuna, 2000). Therefore, undeveloped and developing countries are exposed to exploitation by developed countries by means of their environment (Sunkel and Leal: p.41, 1986 and Gare: p.82, 1995). Although developed countries produce more technology for protection of their environment, they export the hazardous waste from these products to developing countries. This affects the whole world (Tuna, 2000), and so developed countries do not actually get rid of the impact of hazardous waste materials by exporting them (Naess, 1989).

On the other hand, undeveloped countries also would like to import some of the wastes because they make profit by selling these wastes at good prices in their countries. Particularly for e-wastes such as used and out of date computer components, and televisions, undeveloped countries are willing to buy these wastes because they could sell these used components in their countries. However, undeveloped African countries that cannot afford these materials are eager to purchase these e-wastes. If the US exports e-waste containers full of computer components to Africa, African buyers will look through the waste to find Pentium 3 CPUs and televisions (Schmidt: p.234, 2006). The shipment cost for exporting e-waste does not cost more than selling e-waste in their countries, because the buyers could sell them at a good price (Schmidt: p.234, 2006). For example, a computer with Pentium 3 CPU could be sold at around \$130, and a twenty-seven inch television could be sold for \$50 in Nigerian markets (Schmidt: p.234, 2006). Although it could be argued that these are not decent prices, African buyers calculate the profit (Schmidt: p.234, 2006). Even if they buy the fully loaded containers with almost useless wastes, they could make profit by selling the working components and computers (Schmidt: p.234, 2006). On the other hand, useless waste could not be recycled in the African countries because most of them do not have the technology to eliminate the hazardous wastes, and so exporting to these countries should be restricted. These exporting processes are mentioned in international agreements, such as the Basel convention, because harmful

wastes that cannot be recycled with due to lack of sufficient technology could be detrimental for the environment of whole world.

In general, developed countries believe that exporting hazardous waste to poor countries is cheaper than recycling (Ying et al.: p.115, 2009) in terms of costs and environmental problems, hence they export them to developing countries (Ying et al.: p.117, 2009). In developed countries, there are strict regulations in the recycling process to protect the workers and the environment. However, in developing countries, these regulations are either fragile or not enforced to protect workers and environment, and so developed countries export the whole waste problem to poor countries to remove of waste, and reduce recycling, and environmental damages, as well as costs arising from these (Ying et al.: p.117, 2009).

According to Schmidt and Harvey, when developed countries transfer their polluted industry and hazardous wastes to undeveloped and developing countries; this is a “feature of globalization” (Schmidt, 2004 and Harvey, 1996). White claims that “characteristically, the biggest polluters and generators of waste such as the United States and the European Union are also the most likely to export their waste to other less-developed counties” (White: p.114, 2008-09).

Consequently, with industrialization, developed countries export their hazardous wastes to undeveloped and developing countries because they want to get rid of these wastes without any cost and or punishment. However, there is no regulation or enforcement in third world countries to import and use hazardous wastes. If the waste is valuable for buyers, they will approve the importation of hazardous waste to make money. As a result, without high-tech recycling, hazardous waste will have dangerous consequences across the world, because the effects of these hazards are not seen only in the countries of importation, but in the countries of exportation.

### **Measures to Prevent Hazardous Waste Exporting**

For the purposes of this chapter, the Basel Convention should be explained because it is about regulations for the exportation of hazardous waste to third world countries. The Basel Convention protested to prevent the disorderly exportation of hazardous waste to developing countries (Caner and Akil: p.77, 2008). In the convention, contractor countries agreed to prohibit exporting hazardous waste to developing countries (Caner and Akil: p.77, 2008). In 1995, the convention contractors, OECD and EU countries, put a ban on all of the transboundary movements of hazardous wastes (Caner and Akil: p.77, 2008). The Convention is utilised as the most powerful measure to prevent the exportation of hazardous waste from rich to poor countries. However, the convention determined a responsibility and indemnity principle for the accident in the exporting, importing, transporting, and annihilation process of hazardous wastes (Basel Convention, 2000). Furthermore, the convention determined the responsibility of which party will pay the indemnity, and then designated the responsibility from the loading of waste to the final evacuation of waste (Basel Convention, 2000). Consequently, by year of 2009 the convention was approved by 172 countries and earned a prestigious reputation internationally (Environment Canada, 2013).

According to the Basel Convention, hazardous waste movements are “a transboundary movements means any movement of hazardous wastes or other wastes: from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State, or to or through an area not under the national jurisdiction of any State” (Basel Convention, 2012).

Additionally, the Basel Convention also holds that, “Parties are under an obligation to take the appropriate measures to ensure that TBM of hazardous wastes and other wastes are only allowed if one of the three following conditions is met: the State of export does not have the technical capacity and the necessary facilities, capacity or suitable disposal sites in order to dispose of the wastes in question in an ‘environmentally sound manner’; or

the wastes in question are required as raw material for recycling or recovery industries in the State of import; or the TBM in question is in accordance with other criteria decided by the Parties (such criteria will normally be found in the decisions adopted by the Conference of the Parties)” (Basel Convention, 2012).

These are the measures the Basel Convention introduced to control the exportation of hazardous waste. Parties of the convention attempt to execute this by following the aforementioned points:

- It should be provided that social, technological, and economic points are considered to minimize the occurrence of hazardous waste and other waste (Caner and Akil: 87, 2008).
- Removal and recycling facilities for hazardous waste should be built to control wastes compatible with environment (Caner and Akil: 87, 2008).
- The staff responsible for the control and management of hazardous waste should take the necessary measures to minimize their harmful effects on human health and the environment (Caner and Akil: 87, 2008).
- For the transboundary movements of hazardous waste, the waste must be minimized, and the effective control of this should be ensured to protect human health and the environment against negative impacts of the transboundary movements of hazardous wastes (Caner and Akil: 87, 2008).
- The exportation of hazardous waste is prohibited to countries where it is believed that it is incompatible with environment, such as developing countries (Caner and Akil: 87, 2008).
- The countries that produce the waste should support industries with the capacity to recycle the waste (Tenikler: p.64, 2007).
- The countries should follow the Basel convention’s and related regional agreements’ methods and procedures to their national legal activities regarding hazardous waste exporting processes (Tenikler: p.64, 2007).
- The countries should have organized agreements, such as Bamako Convention, to block transboundary movements of hazardous wastes (Tenikler: p.64, 2007).
- The countries should strengthen their national capacities to control and monitor hazardous waste movements (Tenikler: p.64, 2007).

According to Yanez et al., “Progressively tighter regulatory control measures have increased the costs of waste disposal in many countries. Exporting this waste to developing countries, which are regulated by less stringent measures and have lower public awareness of the issue, has been one way in which some companies have evaded these tighter regulations. Officially, fewer than 1,000 tonnes of waste a year are traded to developing countries” (Yanez et al.: p.905, 2002). It could be claimed that strict regulations cause the exportation of hazardous waste to developing and undeveloped countries, because in rich or developed countries there are too many regulations to control the removal of hazardous waste. However, the companies could export the waste to poor countries without any regulation, hence the strict measures are not the only resolution to prevent the exportation of hazardous waste to poor countries.

On the other hand, although the Basel Convention aims to prevent the exportation of hazardous waste to poor countries, “at least 250,000 metric tons of e-waste still illegally enters the five African countries” (Lubic: p.148, 2012). This shows that the Basel convention is not sufficient in controlling the exportation of hazardous waste.

Furthermore, Clapp claims that “the largest recipients and largest exporters were not parties to the Basel Convention, and thus were not bound by its rules, meant that the waste trade did not abate with the adoption of that convention” (Clapp: p.512, 1994), which is still an issue in the present period. Next, Clapp mentions that “with a weak Basel agreement which did not incorporate a ban on the trade with developing countries, many waste traders were able to bypass the regulations by re-labelling hazardous wastes as commodities to be recycled or as aid” (Clapp: p.512, 1994). In recent years, the Basel Convention has changed considerably, but this is possible

today because in rich countries there are a number of restrictions and regulations that are very difficult and expensive for the waste producer companies and factories. For this reason, even if the regulations look like a solution, they sometimes cause the exportation of hazardous waste instead of recycling and regulating the waste producing process to get rid of high costs.

On the other hand, although the USA has numerous regulations to control the exportation of hazardous waste, its law is ineffective. According to Belenky, “the failure of U.S. laws to hold U.S. generators of hazardous waste responsible for the harm caused by those hazardous wastes overseas strains U.S. credibility” (Belenky, 1999). Belenky claims that “the U.S. presently has the technology, the capital, and the capacity to treat, store, and dispose of all of its own hazardous waste. While it may be cheaper in the short run for domestic generators to export hazardous waste, the cost savings is really an externality, a cost of production foisted off onto other nations and the global commons” (Belenky, 1999). Even if the US has acts and regulations to take measures on the exportation of hazardous waste, it has lost its credibility in its claim of aiming to protect the environment against anything harmful, because profit is their only concern. Although there are many national and international regulations, US companies continue exporting hazardous waste to developing countries without providing these countries with any technology to help with recycling (Belenky, 1999). Furthermore, According to Belenky, the US does not ratify Basel to block waste exportation because it is the biggest waste producer and exporter (Belenky, 1999).

## Conclusion

Globally, the mass production and consumption frenzy causes many problems that cannot be easily controlled without any side effects. Hazardous waste is the main reason for this, because any production and consumption process always results in waste. Some of this waste is harmful to the environment and human health. The companies, countries, and people aim to remove these wastes, because of their detrimental effects, by exporting them. On the other hand, exporting these wastes is not the only remedy to prevent the harmful effects of hazardous waste because if one part of the world is damaged, this damage will be felt all over the world. As a result, exporting the wastes does not only affect the importer countries, but it also affects the exporter countries. This is why developed countries have to take measures to control the exportation of hazardous waste developing or undeveloped countries which do not have the technology to recycle it.

The Basel convention is the most significant international agreement in regards to preventing the exportation of hazardous waste. Although there are various regulations to control the exportation process, most of the waste producers do not comply with them due to selfish motives. For example, the US has problems with the convention because it produces the most amount of hazardous waste in the world. Moreover, although the US and other developed countries give off a positive portrayal of themselves by creating acts, rules and, regulations to prevent the exportation of hazardous waste, these measures are ineffective because the exportation to developing and undeveloped countries, without the right technology to recycle the waste, still exists. Therefore, the regulations cannot control the exportation of waste. However, even if they complied with these regulations, they would transport the industries that produce this hazardous waste to developing and undeveloped countries. Thus, they do not export the waste but, rather, they export the hazardous industries to developing and undeveloped countries, so then the waste is still exported to these countries.

In addition to this, the developing and undeveloped countries volunteer to import these wastes, because they use them to acquire valuable materials and technological tools, which is cheaper than buying newly made ones. As well as this, they sell these used wastes for good price. E-wastes are particularly valuable because these countries neither have the technology to produce these devices, nor enough money to buy newly made ones. As a result, even if developed countries comply with regulations to control the exportation of hazardous waste, the developing and undeveloped countries remain willing to purchase the waste, and so the measures to control exportation are ineffective.

Moreover, the regulations and restrictions are problematic in themselves because they make the removal of waste more expensive and costly. If the countries comply with strict regulations to control waste, the waste producers would rather avoid these regulations by exporting the waste because the process to removal is extortionate. It could be claimed that more national regulations for removal of waste causes more exportation to developing and undeveloped countries.

Consequently, it could be suggested that developed countries recycle the waste in their own national territories with local governments' facilities, without this costing the producers anything so that they do not have to export the waste themselves. Furthermore, developed countries have the best technology to recycle without any dangerous results, so they could save the environment by not exporting but importing the wastes to recycle.

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