



# BOFAXE

## TRASH OR TREASURE – PART I

### ON HOW E-WASTE TOXIFIES OUR LIVELIHOOD AND WHETHER INTERNATIONAL LAW PREVENT IT

— What do you think happens with your phone after its approximately two years of usage? It will probably be on its way abroad together with other electronic equipment. With due regard to the fast exchange of phones and other electronic devices, it does not come as a surprise that electronic waste (e-waste) marks one of the most pressing issues of current waste streams (Bogale, p. 230). With 53.6 million tons in 2019, e-waste even exceeds the weight of the Chinese Wall. Unlike household waste, which is usually handled by local institutions, e-waste ends up being shipped to i.e. African countries together with the responsibility to decide upon its recycling or disposal (Bogale, p. 228). Issues of adequate recycling and – most important – of its partly toxic components are thereby shifted to less developed countries like Nigeria or Botswana. This far-reaching globalization of waste streams calls for international legal solutions. Although international conventions started to address the topic of transboundary waste streams, it is argued that the legal framework must apply one step earlier and focus on the prevention of e-waste rather than just covering its movement. For this purpose, the international legal framework surrounding e-waste will be illuminated, followed by analyzing the role of the preventive principle and affected human rights regarding e-waste prevention.

#### The Issue with E-Waste

Comprising i.e. cell phones, batteries and computers, e-waste can be defined as an “electronic device, component or accessory nearing the end or at the end of its useful life” (Bogale, p. 230). With the electronic industry becoming the fastest growing sector and factors like quick innovation and planned obsolescence, the increasing amount of e-waste is easily explained (Gokhale, p. 163). What remains complex are solutions for its adequate management. The issue with e-waste does not only consist of its shipment abroad, by which industrialized countries benefit from loose regulation in the receiving country and thereby easily get rid of their garbage. This practice of dumping e-waste in less developed countries without adequate waste management systems or protective measures is also described as ‘toxic colonialism’. Besides valuable metals, e-waste contains toxic components including mercury and lead (Widmer, p. 438), to which workers, as well as nearby residents, are exposed to and which affect the ground water and air (Gokhale, p. 164). E-waste thus poses harm to human health and the local environment in those countries (Khan, p. 248).

#### International Framework on E-Waste

International law does not remain silent on the issue of hazardous waste movement. Its focus lies, however, on the regulation of waste shipments rather than on waste minimization itself. With its nearly universal ratification, the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes is directly applicable to e-wastes (Widmer, p. 438), explicitly mentioning them in its Annex VIII. By establishing a prior information and consent procedure, it reinforces the possibility for receiving countries to reject such shipments. However, as e-waste brings with it the lucrative business of recycling valuable metals, these hazardous shipments are not only received but – particularly by the informal sector – even welcomed, leading to a literal toxic relationship between exporting and importing countries (Widmer, p. 451). For this reason, the affection of the environment and human health by e-waste can be hindered more efficiently by focusing on the source of the problem rather than regulating its later consequences. Even a rejection of e-waste shipments by certain countries would only relocate the problem to other countries, risking their populations and environmental well-being for this profitable business.

Therefore, the key lies in the prevention and minimization of e-waste, directly addressing the production process in the originating country. But are prevention and minimization of e-waste reflected in current international regulations? Again, the first link to waste minimization can be found in the Basel Convention, declaring the prevention and minimization of waste as a goal of this agreement. Based on the objective of protecting human health and the environment, it demands an environmentally sound disposal of hazardous waste (Khan, p. 252) close to its origin (see Art. 4 (2) (b)), referring to reducing waste generation to a minimum (see Art. 4 (2) (a)). This direct link to waste prevention and minimization not only in the preamble but in the main text shows that the idea of prevention has found entry into an international agreement. The idea of generally restricting the trade with hazardous wastes has been translated into the Basel Ban Amendment, which prohibits the export of hazardous wastes from the EU, OECD and Liechtenstein to other countries and has entered into force in 2019.

# BOFAXE

## TRASH OR TREASURE – PART II

### ON HOW E-WASTE TOXIFIES OUR LIVELIHOOD AND WHETHER INTERNATIONAL LAW PREVENT IT

However, the most important lever to minimize waste is an adapted product design, flanked by clear regulations towards enterprises. In this regard, the 2019 Technical Guidelines to the Basel Convention distinguish between e-waste, which is prohibited from export due to its hazardous components, and used equipment, that can be repaired and refurbished. Together with the Basel Ban Amendment, it promotes the treatment of e-waste at its source and but suffers from the ineffective control mechanisms under the Basel regime (Wehlend, p. 401).

#### The Advanced Regional Regulation

At the regional level, the EU as a big exporting region conducted an ambitious framework concerning waste treatment, establishing a hierarchy between different measures with a priority on prevention (see Art. 4 of the Waste Framework Directive 2008/98/EC). The Directive on Waste Electrical and Electronic Equipment (WEEE Directive) by the European Parliament enhanced this goal of waste prevention by establishing binding rules for an adapted product design, “facilitating re-use, dismantling and recovery of WEEE, its components and materials” (see Art. 4 WEEE Directive) and targets for a separate collection of different types of waste (see Art. 5 (1) WEEE Directive). Together with the Directive on the Restriction of the Use of Certain Hazardous Substances in Electric and Electronic Equipment (RoHS Directive), ensuring the prevention of these substances in electronic products (see Art. 4 RoHS Directive) by obliging the manufacturers (see Art. 7 RoHS Directive) to meet these requirements, the EU provides concrete measures for the prevention and minimization of e-waste, addressing the whole product life cycle.

Similarly, the Bamako Convention establishes the goal of dangerous waste minimization (see preamble) and imposes unlimited liability on hazardous waste generators (see Art. 4 (3) (b) Bamako Convention) in African states. In addition, it demands the adoption of preventive and precautionary measures (see Art. 4 (3) (f)) regarding the release of toxic substances, including clean production methods such as design and re-use (see Art. 4 (3) (g)). Both regional regimes, therefore, offer binding rules concerning e-waste prevention. Problems related to the significant leeway for member states and non-compliance resulting from lacking quantitative targets (Wiprächtiger, p. 1) and conflicting interests of manufacturers (Bartl, p. 13), which rather benefit from selling new products.

#### A Priority for Waste Prevention?

Apart from hard law agreements, the principle of prevention is incorporated in many soft law documents and can now be considered universally accepted (Duvic-Paoli, p. 63). Does the preventive principle entail binding obligations of e-waste prevention? The waste hierarchy on the European level with a priority on e-waste prevention can serve as a leading example for international law. A development on the international level towards such a hierarchy for waste management in general can already be traced in the Cartagena Declaration on the Prevention, Minimization and Recovery of Hazardous Wastes and Other Wasters, in which the parties to the Basel Convention committed themselves to the promotion of waste prevention and minimization, which is seconded by the General Assembly Resolution A/RES/70/1, recognizing that effects on human health and the environment by hazardous substances can be avoided best by reducing and recycling waste. However, concrete binding rules are still necessary to effectively stop the negative consequences of e-waste.

The negative consequences of e-waste also call for a closer look at human rights. Since the workers' and nearby residents' health is threatened by the pollution from e-waste processing and dumping, their rights to health and to physical safety derived from the right to an adequate standard of living are affected. A violation of these rights in similar cases, such as by hazardous waste plants (see the case of Giacomelli v. Italy, para. 97) was recognized by the European Court of Human Rights (see also López Ostra v. Spain, para. 58). Additionally, the leaching of toxic substances into the ground water impairs the water quality, which is protected by the right to water according to General Comment No. 15, para. 12 (b). The obligation of states to protect water sources and safeguard drinking water thus depends on adequate waste management systems and can be achieved most effectively by preventing hazardous e-waste. Finally, the toxic releases from e-waste landfills directly affect the right to a healthy environment by contaminating the local environment of these landfills (Khan, p. 259).



# BOFAXE

## TRASH OR TREASURE – PART III

### ON HOW E-WASTE TOXIFIES OUR LIVELIHOOD AND WHETHER INTERNATIONAL LAW PREVENT IT

This broad affection of human rights by toxic e-waste can only be minimized by a holistic approach with a focus on prevention rather than small-scale measures in the respective parts. However, responsible for protecting these rights are foremost the importing countries, which are in charge of establishing safer working conditions and safeguards against toxic landfills. A direct liability of exporting countries under human rights law can hardly be attributed to them due to the very limited extraterritorial applicability of human rights. These e-waste generating countries could only be responsible for protecting the workers' and residents' rights if they violate clear environmental standards, demanding waste prevention and minimization. Such a transboundary responsibility is embedded in the model of an extended producer liability, already incorporated in European law, but still missing at the global level. Uniform standards for waste prevention would facilitate the derivation of concrete obligations concerning e-waste prevention from the human rights regime.

#### Conclusion

Combining the key messages of the preventive principle, the affected human rights and its development in hard law agreements, it follows that the international waste framework is developing towards a priority on waste prevention and minimization concerning hazardous wastes. This priority though is still not reflected in binding rules of e-waste prevention. Nonetheless, the prevention of e-waste generation – although lacking clear obligations – has found entry into the international framework of waste management and it now needs to be shaped by developing concrete measures for an effective application.