

Penal Protection Contained in the Framework Law on Waste Management and Instructions for the Management of Electrical and Electronic Waste

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Abstract

This research explores the penal protections embedded within the legal framework for waste management, with a specific focus on the management of electrical and electronic waste (e-waste). The article aims to describe the legal and factual facts of acts constituting environmental crimes and their compatibility with the provisions of the Framework Law on Waste Management No. 16 of 2020 in Jordan. In addition to explaining the guidelines for the environmentally sound management of e-waste equipment from information technology. The paper also identifies the problems faced by Jordanian legislators in implementing the strategy for the sound management of electrical and electronic equipment wastes through a special system for the management of electrical and electronic wastes. Provisions on penal liability for damages should be added with the status of judicial officer of the Ministry of Environment to ensure that the law is enforced in a manner conducive to the rule of environmental law, and adding urgency to environmental issues, particularly those related to hazardous wastes, and dealing with them quickly. It aims to provide a comprehensive analysis of penal protection in waste management, with particular emphasis on electrical and electronic waste.

Keywords: Justice, waste management, environmental crime, environmental protection law, hazardous waste, environmental protection

Introduction

Waste management is an essential aspect of environmental protection and public health. It necessitates an effective legal framework to ensure compliance with

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waste disposal regulations. In Jordan, Information and communications technology (ICT) contributed to the growth of the Gross Domestic Product (GDP) by creating access to and use of ICT to reduce the digital divide and social exclusion and enhance everyone's participation in the information and knowledge society. In the social sphere, the effective use of ICT provides citizens with rapid access to more and better information over time. This has a positive impact on education, health and safety, and promotes a fairer and more democratic society (Alalfie, 2000). Accelerated GDP growth, productivity, and increased ICT resulted in the emergence of waste, including electrical and electronic. Thus, the progress produced by ICT has prompted the Jordanian Government to take measures aimed at ensuring the management of electrical and electronic waste (Al-Baz, 2005).

With the introduction of large quantities of electrical and electronic equipment into the territory of the Hashemite Kingdom of Jordan without the necessary controls, the waste of electrical and electronic equipment has become generated at high rates and has become a problem requiring urgent attention as a priority in order to monitor and mitigate the adverse effects on the environment and human health caused by their poor handling. Moreover, these remains have certain characteristics due to the presence of many toxic compounds in their composition (Al-Jundi, 1989). In order to address this situation, Jordanian legislation has established special instructions for the management of electrical and electronic waste. Guidelines have been developed to ensure environmentally sound management of ICT wastes. The development of policies leading to the proper management of electrical and electronic equipment waste is clearly the first step. With the need to seek solutions including the creation of the necessary infrastructure to ensure that electrical and electronic waste is not mismanaged.

Therefore, the problem of the research is the penal protection and criminalization provisions contained in the Framework Law on Waste Management No. 16 of 2020 the effectiveness of these provisions to achieve environmental protection, and the compatibility of the Framework Law on Waste Management with the principles of international environmental law. Through this study, we will answer several questions, the most important of which are: What is the penal protection in the Framework Law on Waste Management No. 16 of 2020? How compatible is the framework law on waste management with the principles of international environmental law? How interrelated and complementary is the Framework Waste Management Act and Environmental Protection Act No. 6 of 2017? Have the criminalization provisions of the Framework Law on Waste Management 2017 achieved the purpose of its legislation in protecting the environment?

This study is characterized by the fact that it does not focus on penalties in general, but rather analyses the criminalization texts that are unique to the Framework Law on Waste Management of the Environmental Protection Law. And attempts to make proposals for achieving the legislator's objective of waste management (hazardous and non-hazardous) through reuse or recycling, which in turn is reflected in the utilization of waste by reducing emissions, i.e., the result of minimizing carbon emissions, which will have positive effects, whether economic or social and environmental importance. Which in turn will be reflected in the achievement of sustainable development goals related to the environment and climate. This paper investigates the penal protections provided under the Framework Law on Waste Management and instructions for the Management of Electrical and Electronic Waste.

Methodology

Given the wide range of legislation dealing with the main issue under consideration. This study will use an analytical strategy to consider all legislation related to the subject matter of this study to ascertain its content, effects, objectives and criticism by clarifying guidelines for the environmentally sound management of electrical and electronic equipment wastes resulting from information technology by identifying the problems faced by Jordanian legislators in the implementation of the strategy for the sound management of electrical and electronic equipment wastes and a special system for electrical and electronic equipment wastes, and the management of electrical and electronic wastes. It will indicate the mechanism for activating the prevention of dumping of electrical and electronic wastes in solid waste dumps as household wastes and treating them in a special manner commensurate with their seriousness and develop appropriate mechanisms for their screening, collecting, recycling, treating, disposing or exporting for treatment.

The problem of electrical and electronic waste is one of the most current environmental issues because it poses significant threats to human health. Apart from the material benefits of e-waste recovery, it is necessary to develop better strategies for their management and to apply more environmentally friendly standards. The demand for electrical and electronic devices is increasing, reflecting on human benefits in various fields, such as health, education, trade, and finance. In contrast to these benefits, the remnants of these devices can be described as a huge wave of electrical and electronic waste that threatens environmental safety and human health with the hazards of heavy metals and toxic vapors.

Analysis of the most prominent materials of the Framework Law on Waste Management

Over the past 100 years, Jordan has had no modern law in line with the global trend towards the use of waste as a major investment and economic energy, as well as the protection of the human right to live in a healthy environment in line with the recent United Nations resolution, which calls for the consideration of this right as a fundamental human right and must also be constituted. There was no law to comprehensively regulate waste files, sorting, and processing, or penalize those who neglect hygiene in public places.

The aim of this Act is to provide the basic legal requirements for the prevention and reduction of waste production, recycling, treatment, and extraction of secondary raw materials and energy production. As well as safe waste disposal for the protection of the environment, human health, and sustainable development. In the past, it has been limited to multiple laws dealing with health issues and punishing only those who dump waste from vehicles (Al-Billeh, 2022a; Al-Zubaidi, 2014).

The Ministry of Environment classifies solid waste of up to 2 million and seven hundred thousand tons annually into two types, part of which is dumped in the landfills allocated to it, and only 10% of which is recycled as food residues and animal dung, and the Ministry seeks to raise this proportion to relieve pressure on health dumps. The law classifies waste into hazardous and non-hazardous and divides it into types such as solid, household, medical, electronic, and construction waste and establishes a mechanism to deal with each of them individually (Al-Billeh, 2022b; Abdul Qawi, 2002). The productive commercial, service, and industrial sectors require more than 1,000 tons of waste per year to activate the waste management plan, which includes the screening and recycling mechanism, and to send it to the designated areas for processing under the control of responsibility and impose double penalties in case of violation. Noting that the number of waste producers exceeding 1,000 tons per year in the capital Amman is 280 companies and factories.

The Framework Law on Waste Management requires the Ministry of Environment to approve a national waste management plan and since sustainable development requirements require the production of a national waste management plan, which contributes to the promotion of investment and the creation of green jobs at all stages to reduce all contamination phenomena through the distribution of tasks and responsibilities and eliminate duplication in preparation and implementation. Thereby, rapidly responding to climate change and the realization of national commitments in this area and the application of modern principles in waste management. As the National Waste Management Plan for the years (2022-

2026) was launched and designed by the Environment Ministry and other involved governmental entities. The plan is designed to strengthen the implementation of the waste management hierarchy, achieve the concept of a circular economy, and define the responsibilities of the competent authorities (Al-Billeh, 2022c; Abdrabuh, 2003; Reiling, & Contini, 2022). It also created an investment environment suitable for the private sector, as well as laid the foundations for national planning for waste management and reduced the phenomenon of indiscriminate dumping. The plan includes ways of dealing with waste management, each Party's responsibilities, and all waste-related and safe disposal, treatment, and transportation methods as soon as possible. The law also requires commercial sector owners to develop a five-year plan for waste disposal, screening, handling, and recycling as much as possible. In addition to being obliged to appoint an environmental officer to oversee this plan (Al-Billeh, 2022d; Al-Hayagna, 2012; Corrias, 2023).

In light of the entry into force of the provisions of the Framework Law on Waste Management 2020 The Ministry of the Environment is working to issue several regulations and instructions for the enforcement of the law in addition to holding a number of workshops funded by the American Agency in preparation for the application of the law and the introduction of several categories. Especially commercial sectors that produce more than 1,000 tons of waste annually with the principles of recycling and waste management and the obligations arising therefrom under the Act (Al-Billeh, 2022e; Fahmy, 2011).

The Ministry, in cooperation with USAID, began holding several training workshops targeting the hotel, mall, restaurant, and hypermarket sectors as a first stage in waste management, treatment, and recycling principles in accordance with the new law. Those workshops will target other sectors at later stages, such as the home sector. The Framework Law on Waste Management encourages source screening in the domestic sector. The Ministry's future plans include training workshops for housewives on waste sorting and appropriate disposal methods, especially solid waste (Al-Billeh & Abu Issa, 2023; AL-KHALAILEH et al. 2023).

Several regulations and instructions have been promulgated to give effect to the law's provisions, including:

- Environmental Waste Management Information and Control System No. 85 of 2020.
- Regulations No. 44 of 2022 on the management of non-hazardous solid waste.
- Hazardous Materials and Wastes Management Regulation No. 68 of 2020, as amended.

- Instructions for the implementation by the national mechanism of the principle of extended product responsibility to address the negative impacts of waste packaging materials for 2022.
- Electrical and electronic waste management instructions for 2021.
- Technical and environmental requirements for the establishment and operation of health waste dumps in the Kingdom for the year 2021.
- Technical and environmental requirements for the establishment and operation of waste transformation plants in the Kingdom for the year 2021.
- Safe closure and rehabilitation methodology for unregulated waste dumps.
- Requirements for the preparation of the municipal solid waste management plan at the provincial and local levels.

In addition to several other regulations and instructions that can be viewed through the Ministry's website, work is ongoing on issuing many regulations and instructions to ensure the implementation of the law and the waste management plan 2022-2026.

Principles underlying the Framework Law on Waste Management

The Framework Act distinguishes itself from the Environmental Protection Act No. 6 of 2017, article 7 of which stipulates that: the principles contained in international environmental law and international conventions shall be incorporated. This is a clear advance in Jordan's environmental legislation. It contained the basic principles of waste management, which are as follows:

- a- Principle of prevention: To adopt effective and appropriate procedures aimed at avoiding the production of wastes or reducing the quantity and damage of wastes generated to the lowest possible level, to reduce risks to public health and the environment and reduce environmental degradation.**

The notion of the principle of international cooperation has emerged clearly in terms of international environmental legalization with principle (24) of the 1972 Stockholm Declaration, when it stated: "International environmental protection and improvement issues must be addressed in a spirit of cooperation between all countries, large and small, on an equal footing. and that cooperation through bilateral or multilateral agreements or in other appropriate ways is indispensable for effectively reducing or preventing damage to the environment resulting from activities in all fields, within the framework of respect for the sovereignty and interests of all countries". That is, national authorities are responsible for procedures to ensure that pollution is not transboundary through the enforcement of

environmental legislation, particularly regarding waste (Al-Billeh & Al-Hammouri, 2023; Al-Billeh et al., 2023).

b- Precautionary principle: take preventive measures to avoid any threat or danger to the environment.

The principle of the preventive approach requires that countries should act carefully and with prior awareness when making decisions regarding activities that could have a negative impact on the environment. In other words, before the country grants any activity with environmental impact within its territory, it may affect its territory or beyond, it should be certain that such activities do not negatively affect the internal and transboundary environment at the same time. Thus, the principle of a preventive approach from several established international standards is linked to the stability of the international community's mind. The sovereign and non-absolute right of the country to act as it wishes within its territorial borders is based on the modern concept of sovereignty, which requires taking the necessary preventive action and measures to prevent or minimize pollution, an obligation that requires due diligence and is closely linked to the obligation to prevent and minimize environmental damage. Preventive measures were intended to take all necessary precautions and measures for the country to avoid harmful consequences of its conduct, which entailed a high risk of harm to the others (Al-Billeh & Abu Issa, 2022; Freitas, 2017). The principle of precaution is a new development to protect the environment and society from unknown threats. It is a principle that responds to fears of adverse effects resulting from the wider use of sophisticated technology and hazardous materials and is applied when the traditional principle of environmental protection is incapacitated, as the application of the precautionary principle does not require good knowledge of hazards, suffice it to be doubted, the country is obliged to take all necessary measures to prevent potential hazards (Al-Billeh et al., 2023; Al-Hammouri & Al-Billeh, 2023).

This distinguishes the precautionary principle from the prevention principle. The precautionary principle does not imply a set of measures to prevent or minimize the effects of foreseeable damage but also to take additional measures to combat damages that have not been confirmed and realized, but that have some uncertainty and suspicion. It is a principle based on exceptional measures to remedy harm (AL-Hammouri et al., 2023; Longo & Lorubbio, 2023).

- c- Principle of extended liability. Producers and importers of materials and goods shall be held financially responsible for the environmental impacts of their products or the remnants of their products from the processing or final disposal of initial production activities in the selection of materials and in the design of products when adverse impacts arise, and a national mechanism has been adopted to address them under instructions issued to that end.**

The extended product liability system is one of the tools for achieving the principles of the circular economy. The extended product liability system aims to extend the product's responsibility for its commodity even after its sale and to bear the material burden and responsibility for the treatment and recycling of waste from the consumption of the commodity or service it provides in order to encourage the product in principle to reduce the waste from its commodity; thus, increasing its profitability (Isa et al., 2022; Al-Billeh & Al-Qheiw, 2023; Alkhseilat et al., 2022).

The product liability legislation usually extends to a locally manufactured or imported commodity, in which case the importer acts as the producer and is responsible for managing the waste from his commodity. For example, the agent of devices from a particular company must provide mobile recycling services in the event of total failure or end-of-life (Alshible et al., 2023; AL-KHAWAJAH et al., 2022; Al-Billeh, 2023).

- d- Polluter pays principle: The waste producer or holder bears the costs of prevention, recovery, and disposal, including subsequent follow-up and monitoring, and the product's financial responsibility for preventive and rehabilitative measures when they cause or are likely to cause damage to the environment.**

The first appearance of this principle at the international level was in 1972 of the Council's list of recommendations for the development of environmental policy guidelines, as enshrined in the Rio Declaration in principle XVI, which provides for "National authorities must endeavor to ensure that officials bear the consequences of polluting the environment." This principle is an economic principle that ensures the distribution of environmental protection costs. The polluter bears responsibility for environmental damage. It is a legal principle consistent with the notion of justice and equity. It also enshrines the policy of punishment by imposing financial and penal penalties on the polluter.

- e- Proximity principle: Treatment or disposal of wastes at the nearest location or establishment taking into account economic and environmental efficiency.**

The precautionary principle emerged on the occasion of the Rio Declaration of 1992 in principle XV, which is based on the prevention of environmental problems prior to their occurrence. The reason for its operationalization is the seriousness of addressing irreversible environmental damage such as radiation damage. This is through proactive action to protect the environment and not wait until the damage is done. This principle is based on:

Environmental damage may occur as a result of a particular activity, the risk of hazardous or untreatable damage, the uncertainty about the safety of the activity or products on the environment, and the search for possible alternatives to environmentally harmful activity or product (ALMANASRA et al., 2022; Al-Khawajah et al., 2023; Fox & Yamagata, 2022).

If a comparison and analysis of waste framework law are made, we note that most of the principles of international environmental law based on international conventions are included. Jordan has ratified most of these international conventions other than environmental protection law, which does not contain these principles. It is worth mentioning the principles enshrined in international law. These principles are the principle of sustainable development, the principle of precaution, the polluter pays principle, the principle of common but differentiated responsibilities, and the principle of environmental impact assessment. All these principles will realize the principle of sustainable development, which is most important because this principle was formulated by the Brundtland Commission in 1987 following the United Nations General Assembly resolution. Sustainable development, according to the World Commission on Environment and Development, means development that meets the needs of the present generation without sacrificing or damaging future generations' ability to meet their needs. In addition, this principle was formulated in the Rio Declaration in principle III, which recognizes the need to realize the right to development in a manner that ensures the needs of present and future generations. Taking environmental considerations into account in the formulation of economic policies and development programs, rationalizing the use of non-renewable natural resources, seeking environmentally friendly alternatives, especially energy sources, and optimizing waste management and making it a source of wealth by recycling.

Criminalization Privacy in Waste Management Framework Law

There is complementarity between environmental law and the Framework Law on Waste Management and the Law on Environmental Protection defines

environmental crime (any act that negatively affects the elements of the environment and any violation of the requirements and conditions set out in regulations, instructions, specifications, technical rules and decisions to that end) (Omar, 2023).

The Jordanian legislator in Article 3 of the Penal Code stipulates that: is no offense except by law and no punishment or measure not provided for by law at the time of the commission of the offense. The offense shall be deemed complete if the acts carried out are carried out without regard to the time of the outcome). The legitimate element of the offense is the unlawful nature of the activity or act. The reference for determining the lawfulness or wrongfulness of the act or activity is the legal provision, and thus an offence can only be committed by the existence of the legal element.

The principle of legality includes two things:

- The principle of the legality of crimes, i.e., no crime except by text.
- The principle of the lawfulness of the penalty, i.e., no penalty except by text.

If the texts of the articles on environmental offenses contained in the Framework Law on Waste Management contained in articles (27-28-29) are analyzed, the offenses and violations shall be defined as follows:

- The offense of collecting, processing, storing, transporting, or disposing of waste without obtaining the necessary licenses and permits in accordance with the provisions of the framework law or any other legislation: The law distinguishes between legal and natural persons in terms of the penalties prescribed in the text of the law. It doubles the penalty for legal persons and imposes the penalty of imprisonment on the natural person in addition to the financial fine. The law authorizes the imposition of both penalties (in the case of the natural person) in addition to removing the offense and correcting conditions within the period specified by the relevant authority.
- The offense of throwing or subtracting hazardous, explosive, flammable, toxic, or prepared wastes without obtaining the necessary licenses and permits in accordance with the provisions of the law. In addition, the law makes a difference between legal and natural persons in terms of the penalties provided for each. The law imposes a fine of not less than 10,000 and not more than 20,000 in the case if the perpetrator of the crime is a legal person, and a fine of not less than 1,000 and not more than 5,000 in the case of the natural person or a term of imprisonment of not less than 1,000 dinars and not more than one year. The penalty could be doubled (imprisonment and fine) in order to further deter public and private deterrence to ensure

compliance with the provisions of the law, with the obligation of the perpetrator to remove the offense and correct the conditions within the period specified by the relevant authority.

- The offense of disrupting or preventing the application of the provisions of the Framework Law on Waste Management: Imposition of the law with a view to ensuring its enforcement by the mandate holders (Environmental Inspectors (Ministry of Environment) or Royal Department for Environmental Protection or Public Security). A penalty of not less than three months and not more than one year in the event of any person disrupting or preventing the provisions of this Law and in the case of any more severe punishment in any other text applying the heaviest penalty and doing well to ensure the enforcement of the law and the application of the rule of environmental law.
- Violation of offences: Any of the following is punishable by law in public places: Waste, dirty water, effluent, ruined machinery, timber, tree trim residues, herbs, dust, mud or construction residues on the streets, on sidewalks, or elsewhere, to the detriment of public health and harm to others. The law has doubled the fine if repeated.
- The law imposes penalties on reckless people who indiscriminately dump waste on public streets, parks, flood streams, tourist, archaeological or religious zones, water sources, dams, or public places a minimum of 50 dinars and up to 1,000 dinars issued by the Royal Department of Environmental Protection cadres in particular and public security in general and everyone who has the status of a judicial officer. The penalty shall be doubled if any of the Acts contained in this Act are repeated.
- The offense of dumping waste in natural reserves and national parks. In order to protect biodiversity, the law imposes a penalty of not less than one week's imprisonment and not more than one month's imprisonment or a fine of not less than 100 dinars and not more than 1,000 dinars with the possibility of sentencing any person who dumps waste in natural reserves and national parks with both penalties.
- Note that the law doubled the penalty in case of repetition and imposition of a financial penalty in addition to imprisonment and this aggravation of the penalty to ensure law enforcement and greater protection of the environment from the risk of waste if not managed in the manner prescribed by the law.
- Since the penalties are not for the purpose of levy or punishment per se and are a means of deterrence, they have been codified to reduce the

phenomenon of indiscriminate dumping of waste, which has become burning and increases pollution.

Criminalization Privacy Relationship in Waste Management Framework Law with Environmental Protection Law

The Environmental Protection Act No. 6 of 2017 and the Waste Management Framework Act No. 16 of 2020 are closely linked to each other's complementary laws. But there are several crimes in the two laws. As framework law distinguishes from environmental law, most principles of international environmental law are included. Meanwhile, the fact that environmental law does not explicitly incorporate these principles except for the principle of environmental impact assessment, and many of the shortcomings that were considered to be negatives of the Environmental Protection Act were not addressed by the Framework Act which are:

- Legislator's failure to deal with provisions on environmental damage and civil liability (without rules on civil liability).
- The failure to grant judicial officer status to Ministry of Environment employees the Environmental Protection Act did not grant the status of judicial officer to the Ministry's staff.
- De-urgency of environmental issues.
- Failure to introduce an environmental incentive system.
- Conflict between the provisions of environmental law and other legislation.
- Lack of a competent environmental jurisdiction (specialized environmental court).

There are a number of advantages that exist in the Environmental Protection Act and have not been incorporated into the Waste Management Framework Act as required by the legislator:

First: Statute of limitations on environmental offences: There is no statute of limitations for environmental offenses considered criminal offense. Article 17, paragraph (a), stipulates that: "The statute of limitations shall not apply to offenses committed contrary to the provisions of this Act and the criminal penalty prescribed therein." This is contrary to the Code of Criminal Procedure and its amendments, which set the statute of limitations at 10 years for offences under Article 338.

Second: Equality of punishment: In order to reduce environmental offences, the legislator of the Environmental Protection Act, article 27, paragraph (b) "The same penalty shall be imposed on the original offender by the accomplice, interventionist or instigator for any of the offences provided for in this Act."

Third: Punishment for initiation: The Environmental Protection Act provides for a penalty for attempted offences and violations contrary to the provisions of the Penal Code, in accordance with articles 70 and 71.

Fourth: Aggravating the punishment of those who help to evade responsibility: The legislator has increased the punishment of a person who assists or complicates with the aim of evading liability in the event of a violation of the provisions of the Protection Act. Article 17 (d) stipulates:

(d) Any person who commits any violation of the provisions of this Act and the regulations and instructions issued thereunder with a view to evading responsibility or complicity in the evasion of responsibility shall be liable to the penalties prescribed for the establishment under this Act.

Conclusion

Waste, including electronic and electrical waste, is a complex mixture of hazardous and non-hazardous substances and, in this case, electrical and electronic equipment residues must be considered a special category of waste to allow a distinction between hazardous wastes and common household wastes to avoid risks or difficulties in the early stages of management or pre-processing phases. At different processing stages, electrical and electronic equipment residues can be managed as hazardous waste to ensure environmental protection and human health and comply with international standards and best practices. In fact, globally used, locally accredited and proven therapeutic methods must be used to preserve the elements of the environment and take advantage of the guidance issued by the relevant accredited authorities, as well as encourage the provision of a comprehensive treatment system for all types of electrical and electronic waste at the local level and work towards the adoption of specific storage and treatment centers for electrical and electronic waste in accordance with the approved global standards. It is, therefore, necessary to add provisions on penal liability for damage, granting the status of a judicial officer to the Ministry of the Environment to ensure that the law is enforced in a manner conducive to the rule of environmental law, and adding urgency to environmental issues, particularly those relating to hazardous wastes, and dealing with them expeditiously.

Finally, the positive provisions of the Environmental Protection Act must be considered by criminalizing (anyone who helps an establishment to evade responsibility and attempt), and equal punishment for each partner, intervener, or instigator of any of the offences provided for in the Waste Management Framework Act. Collaborative efforts at the national and international levels are imperative to address the challenges associated with e-waste and to safeguard the environment and public health.

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