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Journal of Environmental Management and Tourism is an open access, peer-reviewed interdisciplinary research journal, aimed to publish articles and original research papers that contribute to the development of both experimental and theoretical nature in the field of Environmental Management and Tourism Sciences. The Journal publishes original research and seeks to cover a wide range of topics regarding environmental management and engineering, environmental management and health, environmental chemistry, environmental protection technologies (water, air, soil), pollution reduction at source and waste minimization, energy and environment, modelling, simulation and optimization for environmental protection; environmental biotechnology, environmental education and sustainable development, environmental strategies and policies.

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Legal Regulation of Civil Liability for Environmental Damage: How Appropriate are Civil Liability Provisions with the Privacy of Environmental Damage?

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Abstract: The study analyzes the nature of civil liability resulting from environmental damage, because the risk of environmental pollution is one of the dangers that cannot be counted or predicted. Therefore, it is difficult to determine the legal basis on which it is based in the field of pollution. Traditional wrong-based liability rules do not respond to the tort-based environmental policy objectives in order to avoid environmental damage and ensure effective protection for those affected. This made the provisions of civil liability in the Jordanian Civil Law no longer commensurate with the specificity of environmental damage, especially since the situation requires compensation for damage to the environment itself and to the health and property of individuals. In addition, it is not hidden that there are shortcomings in the provisions of the Jordanian Environment Protection Law No. (6) of 2017. Its provisions included preventive and remedial measures for environmental pollution without considering the issue of compensation for environmental damage in a manner consistent with the nature and specificity of this damage. This requires the development of these rules in a way that commensurate with the nature of environmental damage.

Keywords: pollution; environmental damage; civil liability; compensation; civil law.

JEL Classification: K32; K19; K10; Q53; R11.

Introduction

The country aims at applying the best international criteria to enable and reinforce the law and human rights and freedoms (Abdel Hafiz 2007). Not to forget the importance of reinforcing the concept of environmental justice and rights and the related issues, whether ecological or organizational. Framing the legal acts to protect the environment and their importance through effective instructions, laws and systems which aims at achieving the desired objectives (Mehani 2021).

The issue of environmental pollution occupies a great importance in practical life, after it has become one of the most complex problems facing the international community. Its multiple sources, forms, and damage often affect the environment, people, and the vital interests of states. The danger of environmental pollution increases in view of its pervasive nature that transcends the geographical borders of countries around the world, and its effects on the environment in the entire international scope. This is the case in the transfer of toxic waste and the dumping of factory waste in regional rivers and seas. This led to an increase in countries' concerns about the impact of this waste on human resources and nature. Therefore, it was necessary for many researchers to shed light on such studies in order to seek legal solutions that might help prevent or reduce the spread of this global scourge.

From this point of view, civil liability for environmental damage began to occupy a privileged position in the face of issues related to the areas of the environment and its protection from pollution and compensation for it. As a whole, it emphasizes that it is a form of harm to others, resulting from illegal practices and actions committed by some. These environmental damages have a specificity that differs in terms of their content and nature from the rest of the damages that arise from other causes. In addition, the establishment of responsibility for this damage requires the availability of its elements, which have known deep conflicts about the basis of this responsibility and the difficulty of estimating compensation. It is known that the general provisions of civil liability in legal systems have become stable and work with them is easy. However, this is not the case in the field of liability for damages and the existence of the principle of liability per se for this modern field. Accordingly, we will review the civil liability that actually takes place within the framework of general rules, which have not been decided in particular to compensate environmental damages, we will also stress the need to adapt the rules of civil liability, both tortious and contractual, to respond to the special nature of this type of damage that cannot be known in advance because it is in a state of permanent and continuous change. Compensation for it is still arbitrary or through compensation established by economic laws.

1. Research Background

Among the most serious and difficult issues confronting modern industrial civilization are effectively discouraging environmental degradation and sufficiently remedying environmental injury. The environmental liability regime is a common regulatory mechanism used to help with this endeavor (Zhai 2022).

In practice, due to a lack of regulation, certain instances involving environmental destruction can only be resolved in the context of a dispute over environmental contamination responsibility. As a result, in the framework of codification, it is studied whether the damages generated by the act destructing the ecological may be included in the current civil system and if civil laws governing tort can remedy the loss of public environmental interest (Xua and Khanb 2023).

The importance of this study lies in the fact that no environmental legal system can be considered an adequate and satisfactory legal system unless it includes provisions regulating civil liability for environmental damage, and the nature and limits of that liability. Then it is possible to claim compensation for environmental damages in accordance with the provisions of this responsibility. Humankind is exposed to various damages that affect people and their private property, as well as the environment itself through harming the general elements of the environment that belong to all. This study showed the possibility of applying the rules of civil liability in the field of environmental pollution, and the ability of those affected by such practices harmful to the environment to claim compensation. The Jordanian Environmental Protection Law came to deal with various environmental issues. It did not adopt a special system for this civil responsibility. This makes the environmentally harmed person compelled in this case to refer to the general rules related to civil liability for the harmful act in an attempt to obtain what he wants, which is compensation for this damage.

The problem of the study appears primarily in that environmental pollution is a new subject with complex specificity. This results in the difficulty of proving the existence of this pollution, the damage caused, and their attribution to a specific person or entity that can be responsible for compensating the resulting damages. It is often difficult to apply the general rules of civil liability contained in the Civil Code in full agreement to environmental damage. This requires working on developing these rules and provisions and adapting them to

make them commensurate with the nature of these harmful environmental practices and the damages arising from them.

This study seeks to answer the following questions: What is the legal concept of environmental pollution? What is the legal basis for civil liability for environmental damage? To what extent is it possible to adapt the general rules of civil liability in a manner commensurate with the nature of damages resulting from environmental pollution?

2. Methodology

This study adopted the descriptive, analytical and comparative approach. Through the descriptive approach, the position of the Jordanian legislation under study will be described by listing the different rules related to the conceptual framework of environmental pollution and explaining its characteristics and legal nature. As for the analytical approach, its purpose is to analyze those legal texts contained in the legislation related to the study to determine their effectiveness, and the extent of their shortcomings in clarifying the legal regulation of civil liability for environmental damage.

3. What is the Environment and Environmental Pollution?

To study the civil liability for environmental damage and its various aspects, it is necessary to define the legal meaning of the environment with the identification of its elements. It is also necessary to clarify what is meant by environmental pollution, which is the act that results in damage to the environment.

3.1 Definition of the Environment

The concept of the environment came within a broad concept and different connotations. Some of them look at the environment from a scientific point of view, while others look at it from a legal point of view. This made it difficult to put a comprehensive definition of it. The environment, in one of its definitions, is: "the biotic and abiotic factors that all actually affect the organism, directly and indirectly, at any period of its life history" (Hilal 2005; Al-Billeh and Abu Issa 2022). In another, more specific definition, the environment means "the framework in which a person lives, in which he obtains the necessities of his life such as food, clothing, medicine, and shelter, in which he practices his life with his fellow human beings" (Al-Mihanna 2018, Al-Billeh 2022a).

As for the legal efforts made in defining the term environment, many legal legislations have been keen to include a definition within the relevant laws. The Jordanian legislator defined it in Article (2) of Environment Law No. (6) of 2017 as: "the environment that includes living and non-living organisms, the materials they contain, and the surrounding air, water, soil, and interactions, any of them, and facilities established by man." In this definition, it is noted that the Jordanian legislation combined the definition between the two terms natural environment and industrial environment when it used the phrase (the facilities established by man).

The Egyptian legislator defined it in Law No. (4) of 1994 regarding environmental protection as: "the biosphere that includes living organisms, the materials it contains, the air and water that surrounds it, and the facilities established by man." It is noted in the previous text that the definition approved by the Jordanian legislature for the term environment has been in conformity with the text of the Egyptian legislator, as they agree on the definition of the environment completely and do not differ.

The Tunisian legislator also defined in Article (2) of the Environmental Protection Law No. (91) of 1998 the term environment as: "the physical world, including land, air, sea, ground and surface waters, valleys, lakes, marshes and the like, as well as natural spaces, landscapes and distinct sites.", the various kinds of animals and plants, and in general everything that includes the national soil. It appears from the text of the Tunisian legislation that it has adopted the broad concept of the environment, as it made its scope include everything related to life, including nature and biological life, in addition to the smallest details related to humans.

By looking at the previous definitions, we find that they may differ according to the legal systems that define them, but they agree within the general framework of the concept of the environment. In light of this, we can define the environment as: "the material medium in which man lives, including air, water, soil, space, living organisms, as well as facilities established by man to fulfill his demands and needs".

3.2 Environment Elements

The elements of the environment generally consist of two basic types of elements, which are (Al-Nawaisa 2020):

Living elements: They are multiple and different elements, the most important of which are humans, animals and plants, as they live with each other within an integrated ecosystem. Each element of it affects and influences the other elements. Man affects all of these elements if fixed proportions are available among their

components, because any deficiency or imbalance in one of them may cause a collapse of the entire ecosystem. It should be noted here that the population problem and the increasing numbers of people around the world have become the most prominent role in contributing to environmental pollution and lack of natural resources, as a result of the spread of hunger, diseases, poverty and pollution of various environmental sources.

Non-living elements: The most prominent of these elements are air, water, soil, and all the elements that form an environment of its own. These elements are the center of life. The air is breathed by man, the soil is cultivated and eaten from its production, water is drunk, and food comes from all the elements that God has subjected to man. There are also other non-living elements called industrial elements, which are elements invented by man and harnessed to serve him over time, such as tools, constructions, and equipment, to benefit from them in meeting his needs and requirements (Fahmy 2020; Al-Billeh 2022b).

3.3 Nature of Environmental Pollution

Pollution is one of the oldest problems that the environment suffers from. The emergence of this problem has increased as a result of the increasing activity of man in various fields of life. This excessive activity has led to an imbalance in the environment, a threat to the existence of many living organisms, and an infringement of every person's right to a clean, pollution-free environment. This called for combating this pollution and standing up to its expansion and development, as it is the key to any environmental protection law, and the starting point for determining harmful work, and specifying means to combat it (Al-Billeh 2022c).

3.3.1 Definition of Environmental Pollution

Many legal legislations have been keen to provide a definition of the term environmental pollution. There have been many definitions that cannot be counted, so we will suffice to mention some of them. In Article (2) of the Jordanian Environment Law No. (6) of 2017, the Jordanian legislator defined it as: "Any negative change to any of the elements of the environment that goes beyond, directly or indirectly, the environmental standards and specifications approved by the Ministry, or causes this change, whether it occurs to a tangible or intangible degree, or leads to limiting the use of these elements, or reduces their economic value or aesthetic or social aspects, or lead to their partial or total elimination, or affect the practice of the natural life of living organisms, and everything that disturbs their natural balance".

The French legislator also defined pollution in Article (3) of the French Environmental Law as: "the direct or indirect introduction of any polluting substance into the surrounding medium, whether it is biological, chemical or physical."

The same applies to the Egyptian legislation, which defined the term environmental pollution under Article (7/1) of the Egyptian Environment Law No. (4) of 1994 as: "Every change in the characteristics of the environment that leads, directly or indirectly, to harm human health and affect the practice of his natural life, or to damage natural resources, living organisms, or biological biodiversity." Article (1/8) thereof also defines the term environmental degradation as: "The impact on the environment, which reduces its value, distorts its environmental nature, depletes its resources, or harms living organisms or antiquities."

Accordingly, the researchers believe that pollution can be defined as every change in the environment or one of its elements, by the action of living organisms that leads to harmful effects that are negatively reflected on the general health of man, natural resources or his property.

3.3.2 Types of Environmental Pollution

Environmental pollution is divided into three main types as follows (Balmarat and Haddum 2021):

Biological pollution: This type of pollution means that every pollution results from the activity of microorganisms during the fermentation of organic matter. These organisms multiply rapidly, consume oxygen and turn the place into a suffocating medium, or they lose their immunity cells and become infected with viruses and germs. It also results from sediments resulting from industrial, agricultural, or household activities, or from waste resulting from industries that process organic materials. This type is considered one of the oldest forms of environmental pollution known to man. It arises as a result of the presence of living organisms, visible or invisible, plant or animal, in the environmental medium (water, air, soil), fungi and viruses that spread in the air, causing diseases, and others. These beings appear in the form of dissolved substances or substances composed of atoms, or in the form of living bodies that evolve from one form to another in a constantly renewed cycle.

Chemical pollution: It means the excessive use of industrial chemicals to the extent that causes an imbalance in the compounds of the elements of the environment, which are the cause of many chronic diseases that affect the health of living organisms such as humans.

Radioactive contamination: It is the moving energy emanating from a nucleus in a state of instability, which has the ability to penetrate objects that stand in its way, causing an imbalance in its natural components, thus disrupting the biological and chemical processes as a result of the penetration of nuclear radiation to these bodies. This type of pollution results in the emission of radioactive waves in some industrial places and in the vicinity of nuclear reactors in amounts sufficient to damage some living tissues, in addition to the pollution of one of the components of the environment such as water, soil and air (Al-Hiti 2011).

4. Legal Basis of Civil Liability for Environmental Damage

Civil liability is generally defined as the debtor's obligation to compensate for the damage that resulted from his breach of a contractual or legal obligation that falls on him. Therefore, the harmful act is the one that establishes the legal bond between the responsible and the injured. It is the one that imposes an obligation to compensate for the damage it causes to others (Qaid 2015; Al-Billeh 2022d).

It is known that the general provisions of civil liability in legal systems have become stable and easy to use. However, this is not the case in the field of liability for damages and the principle of liability per se for this modern field. Accordingly, we will review in this section civil liability, which takes place within the framework of general rules, which have not been decided to compensate environmental damages in a particular way.

In another sense, on the one hand, it is the rules of tort liability as determined by the general principles, whether for unlawful work, or for guarding things, and on the other hand, the rules of contractual liability when the injured and the responsible are linked to a contractual relationship and the damage occurs on the occasion of the breach of the implementation of the contract.

4.1 Civil Tort Liability Arising from Environmental Damage

Civil liability in its tortious aspect is based in various statutory laws and as required by the traditional theory on the harmful act (tort), which is the basis for tort liability. The claimant for compensation must prove the harmful act, and prove the damage incurred. He must also prove the link between the harm and the harmful act, *i.e.* prove the existence of a causal relationship between them (Al-Nawaisa 2020; Al-Billeh and Abu Issa 2023).

4.1.1 Harmful Act Element (Tort)

The act giving rise to civil tort for environmental damage is the core of traditional civil liability within the scope of environmental damage along with the other two elements, namely, damage and causation. The legislative systems have differed views on the basis of liability for the harmful personal act. Some legislations built it on the basis of tort, as did the Egyptian legislator. Article (163) of the Egyptian Civil Code stipulates that: "Every error that causes damage to others requires the person who committed it to pay compensation." The same applies to the French legislator, as Article (1382) of the French Civil Code, which regulates civil liability for personal action, stipulates that: "Every act, whatever it may be, that causes damage to others, obliges the one through whose fault the damage occurred to compensate" (Al-Mathan and Al-Mahasnah 2006; AL-Hammouri *et al.* 2023). French jurisprudence estimates that Article (1382) of the Civil Code, in its generality, is applicable to environmental damage in general, and its role may even increase in the future (Martin 1992). It responds to the special provisions contained within new and numerous regulations that impose specific obligations with the aim of protecting the environment, such as those that fall on the shoulders of waste producers and holders. It also cites in this regard the strict expressions contained in Article 2 of Law No. (15-07) of 1975 related to the exclusion of waste. The law stipulates that: "Any person who produces or possesses waste, in conditions that may generate effects on the land, animals or plants, or lead to the deterioration of the site or farms or pollute the air or water, or generate noise or odors in a general way, causing damage to human health and the environment, is obligated, guaranteed or insured to exclude it in accordance with the provisions of the current law, in circumstances that would avoid such effects."

According to the aforementioned laws, whether Egyptian or French law, the harmful act that occurred to the environment must be described as tort. In order for compensation to be sought for damage to the environment, there must be some tort on the part of the polluter. The tort was not defined comprehensively and specifically in most of the legislations that adopted it as a basis for establishing civil liability. These legislations were reconciled by not mentioning a specific definition, because this term covers countless numbers of human behavior (Al-Rashidi 2012; Al-Khawajah *et al.* 2022).

The environmental tort is not different from the tort in general, as it is the behavior that emanates from the polluter, or his refusal to do an action, and the awareness of the perpetrator of the act harmful to the environment of the deviation he has committed. This deviant behavior of a person in the field of environmental damage is

represented by his actions that cause harm to others or damage the environment around him. For example, a person may place highly toxic substances in the water springs frequented by other people's animals with the intention of harming them, or a person may break the sewage streams to make the sewage run down the roads, forming puddles of water resulting in harassment of the population represented by the emission of unpleasant odors (Al-Rashidi 2012; Alkhseilat *et al.* 2022).

There is no importance here for the capacity of the person who committed the harmful act, as he may be a natural person or a legal person. Claims may be filed against the polluting companies and institutions that produce materials that have a direct impact on human health or the environment around. The harmful act may be issued by persons of public law (such as the state), whereby the state may carry out acts that harm another neighboring country (Abdelrahman 2014).

As for the Jordanian legislation, it did not establish liability for a harmful act on the basis of tort, but rather made the basis of civil liability the harmful act. Article (256) of the Jordanian Civil Code stipulates that: "Every damage to a third party obligates the perpetrator, even if he is not discerning, to be liable for it." This does not mean that the Jordanian legislator did not stipulate the description of tort in the act that causes the damage, because whenever a person acts unjustly, it is considered a fault. Also, whoever causes damage to others that is not permitted by law is considered at fault. Accordingly, whoever commits a harmful act that results in environmental damage is undoubtedly at fault (Al Shara'a 2014).

The tort occurs in two ways, either by direct or by causing. Article (257) of the Jordanian Civil Code stipulates that: "1- Damage is made directly or caused 2- If it is direct, the guarantee is necessary with no condition, and if it occurs by causing, then it is required that the act be infringement, or intentional, or that the act leads to damage." The Jordanian legislator made the liability of the direct based on merely causing damage to others or to the elements of the environment. Direct is the case in which the act of the polluter has caused the environmental damage directly. As for causing environmental damage, it means the case in which the polluter does an action that leads to environmental damage. The illegality of the act is not added except by adding another, which is intentional or transgression. Intentional is that the causer has caused damage to others with the intention behind this action to cause damage and harm to others, such as one of the factories deliberately discharging wastewater into the watercourse that flows into the river. As for transgression, it is doing something that is not permissible to do, such as one of the companies drilling for oil in the sea without taking the necessary precautions, during the exploration, part of the oil leaked into the sea water. This led to significant pollution and damage to this water (Al-Nasser 2010).

4.1.2 Tort Element

Environmental damage is the core of civil liability for environmental damage. This responsibility cannot be established if this element is absent, given that it is considered the first spark that emanates from thinking about holding those responsible accountable. The availability of the first pillar represented in the act that generates responsibility (tort) is not sufficient alone to claim recourse against the perpetrator for compensation. Rather, the harmful act must result in damage in order for civil liability to be established (Al-Mathan and Al-Mahasnah 2006).

Damage is generally defined as the harm that befalls a person as a result of a violation of one of his rights or a legitimate interest he has, whether that right or that interest relates to the safety of his body, affection, money, freedom, honor, status, and other things that require compensation (Al-Nasser 2010). This definition constitutes the general framework for the concept of damage. However, environmental damage remains of a special nature, as this specificity of environmental damage requires that its concept be explained in a more precise and detailed manner.

Despite the importance of the element of damage, which represents the essence of civil liability, there is no specific definition for it in the texts of civil law, as the matter was left to jurisprudence to take over this task (Al-Ta'i 2013). Some have defined it as: "Any impact on the living or non-living components of the environment and ecosystems, including damage to marine, terrestrial, or atmospheric life" (Al-Hasnawi 2012). Another definition was given as: "current or future damage to an element of the environment, the consequence of a person's activity, or the act of nature, which is represented in disturbing the environmental balance, whether it comes from within the polluted environment or comes to it" (Al-Asir 2014).

It is noted that most of the legislations did not include a definition that defines the concept of environmental damage, including the Jordanian legislation, which did not include a clear and explicit legal provision in which it explains what is meant by environmental damage in the Environmental Protection Law, although it has included some expressions that could be descriptions of environmental damage. It also included a definition of the term environmental degradation in its second article. It defined it as affecting the environment in a

way that reduces its value, distorts its nature, depletes its resources, or harms living organisms or antiquities (Al-Sarayrah 2015). According to the linguistic meaning of this definition, environmental degradation is less severe than environmental pollution itself, but it leads to it, because the latter does not occur suddenly, but requires a period of time for its occurrence.

The Logan Convention defines it as: "loss and harm resulting from environmental spoilage or degradation." The modern European Directive of 2004 dealt with it in paragraph (1/2) of it as: "measurable adverse change in natural resources that may occur directly or indirectly."

It is worth noting that any definition introduced to define the concept of environmental damage must take into account that the environment is divided into two types of resources. The first is the general and shared resources that everyone benefits from, such as the air in the atmosphere, the waters of the seas and oceans, forests and public pastures, while the second is represented in the private resources of individuals such as agricultural lands, canal waters, animals and other private properties that are included in the concept of the environment. The environment in its artistic sense belongs to everyone and does not belong to a particular person. This damage is not personal, in other words it can be said that it is, at first sight, irreparable harm; on the pretext that it does not affect individuals directly, and that the condition of interest must be met by the one who files the lawsuit to claim compensation. However, there remains the possibility of compensation for this type of environmental damage that affects the environment itself, although there is some difficulty in this field. As for the environmental damage that befalls a person's private property, it is a harm that affects a private interest. It is only a personal damage, given that this harm has befallen the injured person, whether financially or physically, so he has a personal and direct interest in filing a lawsuit to claim compensation.

Accordingly, we can define environmental damage as: "the harm or negative impact on the environment, including its living or non-living elements, resulting from an illegal activity, or a legitimate activity that carries a danger to people and other living organisms."

Environmental damage can be of two types, the first type: material environmental damage, and the second type: moral environmental damage. We will discuss both types as follows:

Physical environmental damage: It is generally meant as damage to a person's body or money, or a loss of his financial rights or legitimate interest. As for the physical environmental damage in particular, it is the damage resulting from environmental pollution, which harms human health and the consequent treatment expenses incurred by the injured party, such as a person suffering from cancer as a result of inhaling toxic gases emitted from a factory, or it may cause damage to his property and land, leading to a decrease in its economic value, or a decrease in its agricultural product (Al-Sarayrah 2015).

Moral environmental damage: It means everything that hurts a person's feelings or emotions, causing him pain or sadness. Moral harm is unlike material harm. It is an intangible harm that does not encroach on a person's financial integrity, while affecting a person's right to his freedom, honor, reputation, social or financial status (Sultan 2015). This is what Article (267/1) of the Jordanian Civil Code addressed, saying: "The right of guarantee covers moral damage as well. Any trespass against a third party in his freedom, honor, reputation, or social or financial status makes the trespasser liable for the guarantee." The Jordanian Court of Cassation also decided in one of its decisions, "The jurisprudence established that the perpetrator of the crime is liable for the value of the damage inflicted on the victim, whether the damage is material or moral."

As for the moral damages in the field of harmful environmental activities, it may be represented in the deprivation of the joys of life. For example, it may be represented in the loss of the joys of the picturesque marine environment, as a result of the dumping of oil residues carried by a ship in the territorial waters, or in the loss of a person the joy of sitting in his garden because of the toxic waste left by a factory, which led to the destruction of that person's garden, which was planted with flowers and fruit trees (Al-Nawaisa 2020).

It is worth noting that compensation for moral damages was the subject of controversy. Some have argued that this type of damage may be difficult to determine the moral damage that requires responsibility and compensation, as it differs from other damages in terms of its impact, time of occurrence and source, in addition to the things that are subject to moral harm, such as honor, reputation, and affection, do not have specific prices. How can it be compensated? However, there is another trend that considers the necessity of compensating for moral damages similar to material damages, because the intent is not to compensate for the damage, but rather it is a kind of condolence for the person as a result of what he has suffered. In addition, leaving the victim of sensory damage without compensation will cause him great injustice. The Jordanian legislator did well in the civil law when he required compensation for moral as well as material damage.

In applying the above to moral environmental damages, is it possible to envisage a claim for moral damage resulting from activities harmful to the environment? To answer this question, it is necessary to refer to

the judicial rulings issued by the Jordanian courts. They show that the Jordanian judiciary has recognized the principle of compensation for moral damage in general. However, it did not specifically address the issue of compensation for moral damage caused by environmental activism (Manasir 2020).

This is in contradiction to what has been established in Western jurisprudence and judiciary, which emphasized the comprehensiveness of compensation for environmental moral damages. In this we mention the example of the claims made by the United States of America against the German government to compensate for the damages that resulted from the sinking of the passenger ship "Lusitania" by a German submarine. The court affirmed that moral damages are real and certain rather than emotional and vague damages (Manaseer, 2020). In a recent ruling, the Salalah Court of First Instance ruled in its Decision No. (80/2014) issued Dec.23, 20214 to compensate the plaintiff for the material and moral damage incurred by the aggrieved party as a result of the death of his cows due to eating rotten fish that the factory owner threw behind his factories.

The question that arises is whether the damage is material or moral arising from harmful environmental practices. Are there specific descriptions and conditions for this environmental damage? This will be explained as follows:

For environmental damage to be compensable, certain conditions must be met. It does not differ from the terms of damage in general. Which we will explain in detail as follows:

Environmental damage to be assured: In order for the environmental damage to be compensable, it must be assured. The assured harm is the harm that occurred immediately. For example, the death of a person due to inhalation of toxic gases, or the harm that will occur in the future, such as a worker suffering an injury that is certain to lead to death or inability to work in whole or in part in the future. In fact, this issue raises a problem with regard to the nature of environmental damage, as it is possible that these damages may not appear as soon as they occur, but may take a long period of time, as is the case with air pollution from fumes, or marine pollution with oil derivatives such as petroleum (Othman 2008).

Environmental damage to be direct: It is required for the environmental damage to be a direct result of the harmful act committed by the polluter. For example, the leakage of toxic gases from a factory adjacent to a house led to the inhalation of these gases by one of the household members, this person suffered from shortness of breath or continuous vomiting, so this damage is considered immediate and direct. The injured person has nothing but to prove what he claims, because the tort is presumed on the part of the defendant. As for the indirect damages, we find that the Jordanian legislator required in Article (266) of the Jordanian Civil Code compensation for direct damage only. This is the general trend prevailing in the majority of legislations because of the interruption of the causal relationship between the alleged act and the indirect damage resulting from it (Othman 2008).

In the field of environmental damage, we did not find a provision in the Jordanian Environmental Protection Law requiring compensation for indirect environmental damage. Therefore, the researcher sees the implementation of general rules and sufficiency in compensation for direct damages only. This is sound because estimating indirect damage is not easy either in terms of identifying it or evaluating its effects on the affected person (Al-Rashidi 2012).

Environmental damage befalls an acquired right or a legitimate interest of the aggrieved: One of the conditions for the damage to be compensable is that it falls on a legally acquired right or a legitimate interest, *i.e.* an interest that is not contrary to public order and morals. The Jordanian Court of Cassation ruled in its Decision No. (1018) of 1990 that: "The assessment of compensation for damage to fruit trees based on the percentage of product decline due to dust covering the leaves of trees is a correct estimate. The award of compensation on this basis does not violate the law. The p has violated the acquired right of the respondent. The flying dust from the Jordan Cement Company led to a decrease in the production of the land owned by the respondent, which necessitated compensation."

Environmental damage to be personal: This condition denotes that the claimant for compensation must be the injured person because it is in the nature of matters that a person demands his rights and not the rights of others from the injured. This is only an application of the rule (no lawsuit without interest). Only the aggrieved person is entitled to claim compensation for the damage, or his general successor (such as being his heir), or his representative (such as an agent). Otherwise, no one else can claim compensation and file a liability claims for him. As for the extent to which this condition applies to environmental damages, as it was previously shown that they may affect the general elements of the environment that belong to everyone and not to a specific individual, such as pollution of rivers and seas. Here, it may be difficult to claim compensation for these damages, on the pretext that whoever is claiming compensation does not have a personal and direct interest. Nor does he have the capacity to file a lawsuit and move the liability towards the polluter. This contrasts with the environmental

damage that affects individuals and their private property. There is no problem with this condition because it is considered personal damage that occurred to the aggrieved person in his money or body. The aggrieved party has the capacity to file a lawsuit and move the responsibility towards the polluter (Hashmawi 2021).

4.1.3 Causal Relationship

In order for civil liability to be established for the harmful act in general, the mere issuance of the tort (the harmful act) from the harmed person is not sufficient. Rather, it is required that there be a direct relationship between the harmful act and the damage that befell others. That is, the harmful act must be the direct cause of the damage, otherwise liability is not established. The causation must also be established and direct between the harmful act and the damage.

The causal relationship is the main axis on which the rules of civil liability are based. These rules require the injured person to prove the existence of a link between the harmful act and the damage he suffered. If the injured person is unable to prove this link, then it is impossible for him to obtain the required compensation (Muhammad 2020).

As for the causal link within the scope of civil liability for environmental damage, the element of causation is the existence of a direct link between the harmful act committed by the polluter and the environmental damage inflicted on others, so that proof of this element falls on the injured party according to the general rules of civil liability. However, proving this element is not without difficulty. Most of these damages are generated from several different sources and are described as resulting from frequent and gradual pollution, which may make it difficult to accurately identify the main source causing the pollution. For example, if a factory dumps toxic substances into a nearby river, this will harm everyone who uses or drinks from the river. The difficulty also arises in how to estimate the damage, whether it was before or after the dumping of toxic substances, especially if we know that the river has been previously polluted by someone else. Here we have several causes and sources of pollution, which one is the productive cause, and which one is the accidental cause? This is something that the researcher sees as not easy to know and appreciate (Al-Rashidi 2012; Alshible *et al.* 2023).

One of the difficulties that may face the issue of proving the causal relationship in the field of environmental damage is that the plaintiff is usually tasked with proving the damage and supporting his claim with accurate scientific evidence proving that. For example, if the plaintiff was harmed by toxic substances emitted by a factory adjacent to his home, he must prove that the percentage of emissions exceeded the specified standards for air quality and purity. The trial judge is known to have discretion in assessing the probative strength of evidence presented. However, in the field of environmental damages, this scope may become narrow, because the judge is not a scientific expert in these issues, and pollution issues have a purely scientific nature. When the judge considers a lawsuit filed against a large industrial establishment, he views it as the strong party and awards it compensation for the damages claimed by the plaintiff, despite these factories' compliance with environmental protection laws (Abdelrahman 2014).

4.2 Contractual Civil Liability for Environmental Damage

In addition to what is provided by the tort civil liability in terms of legal provisions and rules that those affected by environmental pollution can resort to, there is the possibility of resorting to the provisions of contractual liability. This is achieved when a contractual relationship is established between the affected party and the person liable for the damage.

Contractual liability is based on the availability of its basic pillars, which are tort, damage, and causal relationship. As for the damage, it must be direct, in the sense that it is the result of non-implementation or delay. If the debtor's obligation is to exercise care, then the creditor must prove the creditor's fault. But if his commitment is to achieve a result, then the tort is established once the commitment is breached. Finally, the causal relationship must be present.

However, in the field of environmental damage, although those affected by environmental pollution can file a contractual liability lawsuit, we acknowledge that such lawsuits are very few, because these disputes are still recent. In addition to the fact that most of these disputes are often settled through reconciliation between the parties, to the extent that they may be considered in many cases an economic burden for industrial projects rather than compensation for damages.

Contractual liability for environmental damage can be established by two main mechanisms. The first is the mechanism of guaranteeing the hidden defects of the thing sold. The provisions of the second mechanism, which is the obligation to inform and advise, can apply to it, which the French legislator adopted to confront this type of damage (Qaid 2015).

4.2.1 Hidden Defects Guarantee

A hidden defect is generally defined as any blemish on something that is unusual in its normal condition. By looking at the texts of the Jordanian Civil Code, we find that it stipulated the concept of a hidden defect indirectly when it stipulated the conditions for the old defect in Article (4/513) by saying: "The old defect is required to be hidden, the hidden is the one that is not known by seeing the appearance of the thing sold or it is not evident to the ordinary person, nor is it revealed by anyone other than an expert, or it does not appear except by experience."

The guarantee of hidden defects, according to the same law, also included the sale contract and every contract transferring ownership or usufruct. Because whoever transfers ownership to another person or a usufruct right must transfer beneficial possession that enables the buyer to benefit from the thing according to the purpose for which it was prepared (Yusifi and Al-Zein 2006; Almanasra *et al.* 2022). This is the same as stipulated by the French legislator in Article (1641) of the French Civil Code, stating that the seller is bound by the guarantee because of the hidden defects found in the thing sold, which would render it unfit for the use for which it was intended, or which greatly diminishes this use, so that the buyer would not have earned it or paid a lower price, had he known it.

On the basis that we are discussing the damages of environmental pollution, we can say that the aggrieved party has the right to justify his claim accordingly. The best example to mention in this regard is what the French judiciary went to in applying the text of Article (1641) civil to the case of harmful waste. The French judiciary tended to acknowledge that the waste producer cannot be ignorant of the hidden defects that the simple professional is supposed to be aware of. Thus, his contractual liability for all damages that befall the buyer to his person or money, or the consequences of his liability against third parties, is established. Concealment of the defect is achieved in this case if the waste was stored in a hidden manner or buried in the ground without a visible mark.

4.2.2 Commitment to Advice and Information

Modern legal jurisprudence has settled on the need for a commitment to inform and advise for the majority of agreements that involve dangerous things. This leads us to exposure to some agreements that lead to environmental damage and pollution. The agreements that relate to the treatment and transportation of waste are the responsibility of whoever entrusts another contractor with the treatment or transportation of these wastes. Contractual liability in this case occurs whenever the first contractor breaches this obligation, resulting in damages to the carrier or others. For example, the first contractor refrains from the obligation to inform and advise in order to draw the attention of the other contractor (the carrier) to the risks that may arise from the nature of the waste and the extent of its danger in order to take the necessary precautions to avoid the occurrence of damages. It is also his responsibility to advise due to his knowledge of ways to store and destroy these wastes in safe conditions (Yusefi and El-Zein 2006).

Conclusion

The study dealt with the legal system of civil liability for environmental damage, with the aim of establishing responsibility for everyone who caused damage to the environment and obligating them to pay compensation as a penalty for an act that violates the law. It is done either by the rules of liability for illegal action that are based on tort as an essential element of its existence or based on contractual liability for these environmental damages. This is when it is possible to attribute to one of the contracting parties a breach of the contractual obligation that was behind the occurrence of this damage.

In fact, it is necessary to reformulate and accommodate new rules commensurate with the magnitude of the devastating damage to the environment. The traditional legal rules of civil liability can no longer contain this type of damage. The reason for this is the difficulty of proving the elements of civil liability in the field of environmental pollution, whether from a harmful act or damage, or the causative relationship between them, in addition to the difficulty of determining who has the capacity to file a lawsuit for liability for damages of environmental pollution.

Therefore, the plaintiff, according to laws and regulations, is required to have an interest protected by law. He shall have this capacity when the environmental pollution harms his physical safety or his money and private property. As for the environment, it does not belong to a specific person. The issue becomes thorny as to who has the capacity to initiate a civil liability lawsuit against those who commit harmful environmental practices. It should also be noted that the issue of estimating compensation for environmental damage is not an easy matter, as most

of the environmental damage is indirect and appears over a long period of time. This confirms the inadequacy of applying the general rules of civil liability for environmental pollution.

The Jordanian legislator must address the issue of civil liability, in both its tort and contractual parts, for environmental damage within the Jordanian Environmental Protection Law, given the special nature of environmental pollution. In this regard, we also suggest the need to enact a legal text within the law that activates the role of compensation funds in the event that the person responsible for the pollution is not identified. These funds are directed to cover the environmental damages that affect public environmental elements that belong to everyone and that may not be covered by the insurance system in general, or the environmental damages resulting from sudden accidents or force majeure that cannot be attributed to any person. This is for the purpose of protecting the environment and providing effective protection for those affected by environmental damage.

Finally, the Jordanian legislator must develop the rules of civil liability to respond to the special nature of environmental damage without adherence to or being satisfied with the traditional rules of liability. We also hope to increase the role of the media in raising awareness of the dangers of pollution to the safety and health of humans and nature, and the right of individuals to live in a clean environment. This is considered the basic and essential block in building the concept of civil liability for environmental damage in Jordan.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

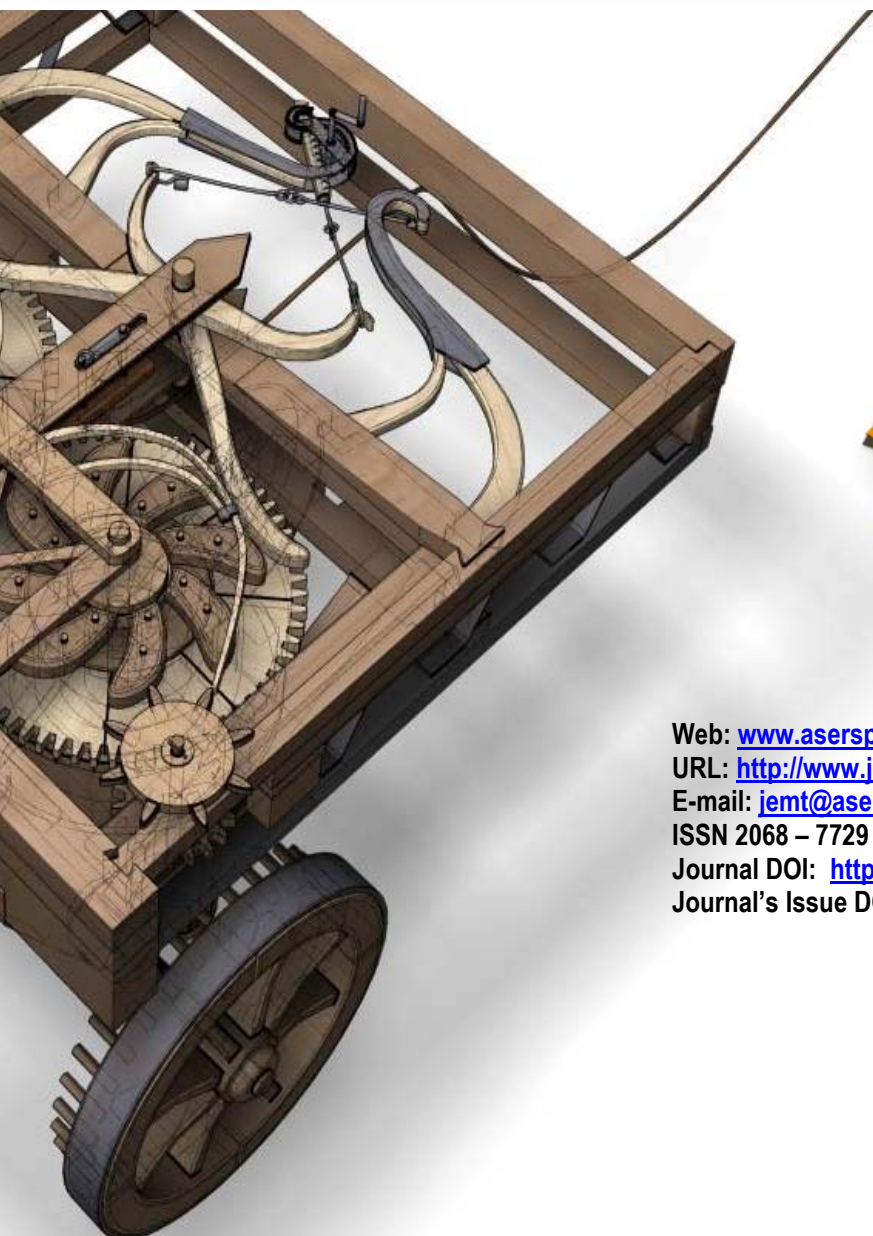
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