Journal of Environmental Management and Tourism



Volume XIV Issue 7(71) Winter 2023 ISSN 2068 – 7729 Journal DOI https://doi.org/10.14505/jemt



Winter 2023 Volume XIV Issue 7(71)

Issue 7(71)		
Editor in Chief: Ramona Pîrvu, University of Craiova, Romania		
Co-Editor: Cristina Mihaela Barbu, Spiru Haret University, Romania		
Editorial Advisory Board:		
Omran Abdelnaser, University Sains Malaysia, Malaysia		
Huong Ha , Singapore University of Social Sciences, Singapore		
Harjeet Kaur, HELP University College, Malaysia		
Janusz Grabara, Czestochowa University of Technology, Poland		
Vicky Katsoni, Technological Educational Institute of Athens, Greece		
Sebastian Kot, Czestochowa University of Technology, The Institute of Logistics and International Management, Poland		
Andreea Marin-Pantelescu, Academy of Economic Studies Bucharest, Romania		
Piotr Misztal, The Jan Kochanowski University in Kielce, Faculty of Management and Administration, Poland		
Agnieszka Mrozik, Faculty of Biology and Environmental Protection, University of Silesia, Katowice, Poland		
Chuen-Chee Pek, Nottingham University Business School, Malaysia		
Roberta De Santis, LUISS University, Italy		
Fabio Gaetano Santeramo, University of Foggia, Italy		
Dan Selişteanu , University of Craiova, Romania		
Lesia Kucher, Lviv Polytechnic National University, Ukraine		
Lóránt Dénes Dávid , Eötvös Loránd University, Hungary		
Laura Ungureanu, Spiru Haret University, Romania		
Sergey Evgenievich Barykin, Peter the Great St. Petersburg Polytechnic University, Russian Federation		
Omar Abedalla Alananzeh, Faculty of Tourism and Hotel Management, Yarmouk University, Jordan		
Marco Martins, Polytechnic Institute of Tomar, Portugal		

Konstantinos Antoniadis, University of Macedonia Thessaloniki, Greece

ASERS Publishing http://www.asers.eu/asers-publishing ISSN 2068 – 7729 Journal DOI: https://doi.org/10.14505/jemt

Table of Contents:

1	Promising Directions of Increasing Energy Efficiency and Development of Green Energy in the Household Sector of Ukraine Olha PROKOPENKO, Oleksandr TELIZHENKO, Yevhen KOVALENKO, Svitlana LYTVYNENKO, Tetiana NYCH, Andriy KOVALSKY	2821
2	Implementation of Green Banking In the Largest Polish and Romanian Commercial Banks – An Analysis of Progress, Strengths and Weaknesses Błażej LEPCZYŃSKI, Małgorzata SIEMIONEK-RUSKAŃ, Mina FANEA-IVANOVICI	2835
3	Innovative and Marketing Features of Agri-Food Supply Chain Development IIona YASNOLOB, Nataliia DEMIANENKO, Oleg GORB, Yurii TIUTIUNNYK, Svitlana TIUTIUNNYK, Lyudmyla SHULGA, Tetiana DUGAR, Olena MAIBORODA, Svitlana PYSARENKO, Yuliia POMAZ	2844
4	Impact of the Perceived Quality of Traditional Villages' Cultural Landscapes on Tourists' Loyalty Huaheng SHEN, Nor Fadzila AZIZ, Menglan HUANG, Lingyun YU	2853
5	Influence of Digital Technologies on Transition to a Circular Economy in Tourism: Values and Barriers Samalgul NASSANBEKOVA, Gaukhar YESHENKULOVA, Nurkhat IBADILDIN	2871
6	Quality of Environmental Impact Assessment Reports for Lodge Developments in Protected Areas: The Okavango Delta Case, Botswana Leungo Boikanyo L. LEEPILE, Claudine ROOS, Francois Pieter RETIEF, Hans Jurie MOOLMAN, Reece Cronje ALBERTS, Dirk Petrus CILLIERS	2880
7	Mitigating Pollution at the Source and Textile Waste Minimization in Poland: Findings from In-House Research Dagmara SKURPEL	2894
8	Assessment and Forecast of Atmospheric Air Quality at the Regional Level. Example of Central Kazakhstan Raikhan BEISENOVA, Bektemir ZHUMASHEV, Rumiya TAZITDINOVA, Zhanar RAKHYMZHAN, Symbat TULEGENOVA, Zhanat ZHAZNAYEVA	2904
9	Sustainable Energy Systems and Green Hotel Practices in Hotels in Tamale Metropolis, Ghana Patricia Animah APPIAH, Raymond ADONGO, Abdul-Rafiw SAFO	2915
10	The Legal Framework Governing the Offence of Environmental Pollution in Jordan and the Sultanate of Oman Ashraf Mohamad GHARIBEH, Mohammed Rashid Ahmed Al MAKHMARI, Radwan Ahmad Al HAF, Mohammad Njim Ibrahim ELAYAT, Ahmad Hussein ALSHARQAWI	2935
11	Exploring Ecological Justice in the Regulatory Framework of Land Ownership, Utilization, Control, and Inventory in Indonesia Agung BASUKI, Lego KARJOKO, I Gusti Ayu Ketut Rahmi HANDAYANI	2944
12	Cultural Aspects of Waste Management in Poland and China Kalina Maria TACZKOWSKA, Maciej BORKOWSKI	2954
13	Task-Based Budgeting In Environmental Projects Planning: A Case Study of A Manufacturing Company In Poland Anna SIEMIONEK-LEPCZYŃSKA, Michał CHALASTRA	2968

Call for Papers Spring Issues 2024 Journal of Environmental Management and Tourism

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.

Authors are encouraged to submit high quality, original works that discuss the latest developments in environmental management research and application with the certain scope to share experiences and research findings and to stimulate more ideas and useful insights regarding current best-practices and future directions in Environmental Management.

Also, this journal is committed to a broad range of topics regarding Tourism and Travel Management, leisure and recreation studies and the emerging field of event management. It contains both theoretical and applied research papers and encourages obtaining results through collaboration between researchers and those working in the tourism industry.

The journal takes an interdisciplinary approach and includes planning and policy aspects of international, national and regional tourism as well as specific management studies. Case studies are welcomed when the authors indicate the wider applications of their insights or techniques, emphasizing the global perspective of the problem they address.

Journal of Environmental Management and Tourism is indexed in SCOPUS, RePEc, CEEOL, ProQuest, EBSCO and Cabell Directory databases.

Details regarding the publication in this journal are here: https://journals.aserspublishing.eu/jemt/about

Deadline for submission: 15st February 2024

Expected publication date: March 2024

Website: https://journals.aserspublishing.eu/jemt

E-mail: jemt@aserspublishing.eu



DOI: https://doi.org/10.14505/jemt.v14.7(71).10

The Legal Framework Governing the Offence of Environmental Pollution in Jordan and the Sultanate of Oman

Ashraf Mohamad GHARIBEH Sohar University, Oman amohamadgharibeh@su.edu.om

Mohammed Rashid Ahmed Al MAKHMARI Sohar University, Oman MMakhmari@su.edu.om

> Radwan Ahmad Al HAF Sohar University, Oman RAIHaf@su.edu.om

Mohammad Njim Ibrahim ELAYAT Arab Open University, Oman Mohammed.i@aou.edu.om

Ahmad Hussein ALSHARQAWI Modern Law Firm, Jordan Ahmad alshargawi29@hotmail.com

Article info: Received 02 July 2023; Received in revised form 27 July 2023; Accepted 06 November 2023; Published 08 December 2023. Copyright© 2023 The Author(s). Published by ASERS Publishing 2023. This is an open access article distributed under the terms of CC-BY 4.0 license.

Abstract: The focus of this study pertains to the legal regulations governing environmental pollution offences, as stipulated by the Environmental Protection Law No. 6 of 2017 and its subsequent revisions. Initially, the study examined the definitions of environmental pollution in accordance with the methodology employed by Jordanian lawmakers and international conferences. Subsequently, an analysis was conducted on the Environmental Protection Law No. 6 of 2017 and its subsequent amendments. This was followed by a determination of the fundamental components upon which the criminal offence is predicated. Additionally, a review of select cases that were brought before the Jordanian judiciary was undertaken. The environmental policy in Oman legislation underscores adopting a multifaceted approach, sometimes emphasizing obligatory measures and resorting to prohibitive or unrestricted policies. It is apparent that the responsibility for safeguarding the environment from pollution is not solely vested in the state but is a collective responsibility shared among individuals and society as a whole, as reinforced by the provisions of Article 6. This underscores the importance of environmental protection as an effective means to combat wrongdoing, thus the enactment of Law No. 26 for Environmental Protection and Pollution Control, which establishes specific legal principles to define criminal behaviour and prescribes penalties, adhering to the fundamental legal principle that "there is no crime and no punishment except by law."

Keywords: environmental protection law; environmental pollution; environmental pollution crime; Jordanian law; Oman law.

JEL Classification: K32; Q56; R11.

Introduction

Each historical period is characterised by a particular concern that emerges and captures the attention of intellectuals. Currently, a pressing concern is the matter of environmental pollution and its consequential impact on the environment, posing a threat to humanity. The environment is widely recognised as a crucial medium for the existence of living organisms, encompassing humans, animals, and plants. Human beings have endeavoured to exploit the natural resources of the environment and manipulate it to suit their needs, often exceeding the boundaries of sustainability. The current state of environmental degradation is a grave concern, as it poses

significant challenges to the restoration of the damaged ecosystems. The issue of global warming serves as a representative instance. The phenomenon of living amidst threats that pose a potential risk to the sustainability of our planet has become a pressing concern. The issue at hand pertains to a human predicament, particularly in light of the significant advancements in technology that humanity has achieved and the ensuing revolution. The industrial sector has played a significant role in the progress of humanity, albeit with some negative impacts on the environment (Al-Hasban 2011).

The subject of environmental conservation and the imperative to safeguard it, along with strategies to address the ramifications of the Infection, is a matter of great significance for both global accords and domestic laws. It has garnered considerable attention from legal experts across various fields, with numerous studies conducted by scholars from diverse backgrounds (Ahmed 2000).

In light of the emergence of this phenomenon and the gravity of environmental issues, nations have undertaken measures to mitigate deleterious practises and activities that compromise the environment. Consequently, international conventions on environmental sustainability have been convened, including the Stockholm Conference of 1972 and the third Rio, Brazil Conference of 1993. According to Soleimani (2016), it is imperative for nations to implement appropriate legal measures to safeguard and conserve the environment. In this regard, the Jordanian legislative body has enacted Environmental Protection Law No. 6 of 2017, along with its subsequent amendments, to mitigate detrimental practises and activities that pose a threat to the environment.

The legislative framework in Jordan establishes legal regulations to ensure the protection of the environment and combat any activities that disrupt the balance of the ecosystem. Additionally, it outlines measures to address the issue of ocean pollution. The crucial domain encompasses the aquatic, terrestrial, and aquatic components, and it also establishes legal mechanisms to oversee these activities. It is imperative to ensure that perpetrators of environmental violations are held accountable and subjected to appropriate penalties as stipulated in Environmental Protection Law No. 6 of 2017 and its subsequent amendments.

The present study was structured into four distinct sections. The initial section pertains to the fundamental notion of environmental pollution as a criminal offence. The subsequent section delves into the various components that constitute the crime. The third section is dedicated to the legal consequences that are associated with the commission of this offence. Finally, the fourth section provides a suitable conclusion to this study.

Methodology

In this research, an analytical approach will be employed to examine the legal articles relevant to the study. This will help us assess the strengths and weaknesses of different jurisprudential, legal, and judicial trends, as well as the degree to which they are applied. Our aim is to identify the content, implications, and objectives of these trends, and to offer constructive criticism and commentary. The study requires the utilization of multiple approaches due to its complex nature, bridging legislation, opinions, and jurisprudence trends.

1. What Constitutes an Environmental Pollution Crime?

The examination of environmental pollution as a criminal offence from a legal perspective necessitates the establishment of a clear definition of the term "environment." of analysis, pertains to the notion that pollution is not uniformly distributed across currencies. This presents a significant challenge in conducting an accurate assessment of the impact of pollution on a particular currency. Research endeavours involve ascertaining the precise connotation of the term "environment" in addition to the concept of pollution.

1.1 The Concept of the Environment

The Jordanian legislature has provided a definition of the environment in accordance with Environmental Protection Law No. 6 of 2017 and its subsequent amendments. The environment is described as a medium that encompasses both living and non-living organisms, as well as the materials that are present within it. Additionally, the environment includes the air, water, and soil that surround it, as well as the interactions that occur between any of these elements. Furthermore, the environment encompasses any facilities or activities that are established by humans within it.

According to the Jordanian definition, the environment is composed of two elements. (1) The natural element is a product of divine creation and is embodied in the various natural resources, including water, air, soil, plants, and animals, which are crucial for the sustenance of life. Preservation of these elements is imperative for the perpetuation of life. The industrial component pertains to the human-made tools and means created primarily to fulfil their needs and demands.

The present discourse pertains to the delineation of the environment in international conferences. The Stockholm-based Human Environment Conference of 1972 aimed to provide a comprehensive definition of the environment, which encompasses all elements that surround human beings, including those that are naturally occurring or those that are created by human activities. Regarding the Belgrade Conference held in 1975, it was declared that there exists a correlation within the realm of the natural world. Furthermore, the relationship between the biophysicist and the socio-political realm pertains to the genesis of humankind (Al-Khawaldah, M.H.A., Rshdan, A.A.M.H., Al Makhmari, M.R.A., ...Al Haf, R.A., Alsharqawi, A.H. 2022).

The term "environment" is a broad term that is not necessary to include in a comprehensive definition, and all we can say is that the environment has constituent elements. One is natural, and the other is artificial.

1.2 The Concept of Pollution.

In order to ascertain the legal parameters of environmental pollution in Jordan, it is necessary to first examine the definition of pollution and its various classifications. The issue of environmental pollution is a central focus of environmental studies, given its status as a primary concern and the most hazardous factor in environmental conservation. It has been widely recognised among scholars that pollution represents a significant challenge in this field. The sole entity that experiences adverse effects due to the surrounding ecological conditions.

According to the Environmental Protection Law No. 12 of 1995 in Jordan, pollution is defined in Article Two as any detrimental alteration to any component of the environment that surpasses the Ministry's approved environmental standards and specifications, either directly or indirectly, or that causes such an alteration. This alteration may occur to a tangible or intangible extent, and may result in the restriction of the use of these components, a decrease in their economic, aesthetic, or social value, or their partial or complete elimination. Additionally, pollution may impact the normal life of living organisms and disrupt their natural equilibrium.

In accordance with Article Two of the Environmental Protection Law No. 6 of 2017 and its subsequent amendments, pollution has been defined by the Jordanian legislator. The environmental components encompass both biotic and abiotic factors, including but not limited to the natural resources of water, air, and soil, as well as the diverse array of living organisms and their genetic origins that inhabit the environment.

The fundamental components necessary for the manifestation of pollution are as follows: Article 2 explicitly refers to an alteration in the surroundings. The second point is that human activities are responsible for the change, as instances of pollution can lead to legal consequences if the responsible parties are deemed to have committed a crime. Human activity is responsible for pollution, whereas pollution resulting from natural causes is not a contributing factor. Certainly, I will include the definition. The incidence of environmental damage is a matter of concern, as it results in adverse effects on the health of the general public, flora, fauna, and various environmental components such as air, water, and land.

The 1982 United Nations Convention on the Law of the Sea established a definition for marine pollution as the act of introducing substances or energy into the marine environment, including estuaries, by human activities, either directly or indirectly, which may cause harmful effects such as damage to living matter and life. The marine environment poses a significant threat to human health and safety, as well as to legitimate activities such as fishing. Additionally, the quality of seawater is deteriorating, further exacerbating these risks. For both practical and leisure purposes. (Ouinas 2007).

1.3 Types of Environmental Pollution

The categorization of pollution is based on various criteria, such as the type of pollutant, the nature of the pollution event, the source of pollution, and the resultant impacts. (El-Refaie, A.M., Alshargawi, A.H. 2022).

A. The Categorization of Pollution Based on Its Origin: (1) Natural pollution refers to the environmental degradation that arises from natural phenomena, such as volcanic eruptions and earthquakes, which can have detrimental effects on human livelihoods. Unlike anthropogenic pollution, natural pollution is not subject to legal protection. Industrial pollution refers to the contamination of the environment resulting from human activities related to industry. The category of pollution that falls under the ambit of legal safeguard is the one being referred to

B. The Categorization of Pollution Based on Geographical Extent: Pollution is categorised into two types based on its geographical extent: limited pollution and unlimited pollution. (1) Limited pollution refers to the type of pollution that does not surpass the territorial boundaries of its origin, thereby confining its effects within the said borders. Unlimited pollution refers to the presence of organic sources of pollution within a region that falls under the jurisdiction of a particular nation, even if such sources are only partially present. Additionally, if any antiquities

are discovered within a region that falls under the jurisdiction of another country, it also falls under the purview of unlimited pollution.

- **C.** One category of pollution is deemed reasonable due to its limited impact on the environment and lack of disruption to the ecological equilibrium. The category of pollution referred to as "dangerous" occurs when the amount and composition of pollutants surpass the established environmental threshold, thereby posing a risk to the natural, industrial, and human components of the environment. This disturbance to the environmental equilibrium is prevalent in industrialised nations. Destructive pollution is widely regarded as the most perilous form of pollution due to its ability to surpass the threshold of environmental security and reach lethal levels. It has the capacity to devastate ecosystems and disrupt the delicate balance of the environment. This encompasses the detrimental impact on both the natural environment and human population resulting from incidents such as oil spills and the deployment of nuclear armaments.
- **D.** The categorization of pollution based on the environment in which it takes place. Pollution can be classified into two categories based on the environment in which it occurs, namely air pollution and water pollution. In addition, soil pollution encompasses various forms of pollution. (Abdellaoui 2004).

2. The Elements of Environmental Pollution Crime.

The Jordanian legislative body has demonstrated a significant commitment to environmental preservation and protection (ALKSEILAT; ABU ISSA; AL-REFOU 2020). This is evidenced by the enactment of laws aimed at safeguarding the environment and preventing pollution, which poses a threat to all components of the ecosystem, including humans, animals, and plants. The Environmental Protection Law No. (6) of 2017, along with its subsequent amendments, serves as a crucial legislative tool for environmental protection. Article Two of the Environmental Protection Law No. 6 of 2017, as amended, outlines the definition of environmental crimes as any action that causes harm to the components of the environment, as well as any breach of the terms, conditions, regulations, instructions, and specifications that have been established. This definition has been established by the Jordanian legislator. Regulations and determinations of a technical nature have been promulgated for this objective.

In the Sultanate of Oman environmental crimes, like any other crimes, require the presence of both material and moral elements. The material element is manifested in the behaviour within the environment, such as the criminal outcome, and establishes a causal link between that outcome and the action or conduct of the perpetrator. The perpetrator's activity needs to be the cause of the criminal outcome. Additionally, the moral element, represented by the criminal intent, is required in intentional crimes that contravene environmental protection regulations and result in harm. It should be noted that liability can also be attributed to negligence when harm occurs unintentionally without the perpetrator intending to cause the criminal outcome.

2.1. The Legal Pillar

The legal foundation for classifying an action as a criminal offence and ascertaining its corresponding punishment. The concept comprises of three fundamental components: Firstly, the presence of a legal provision that renders the act a criminal offence. Secondly, the existence of a written statement outlining the punishment or preventive measures for the said offence. Lastly, the act in question must not fall under any of the legal justifications specified by the law (Muqadas, 2019). The legal framework pertaining to this matter is embodied in Articles 6, 7, 8, 9, and 10 of the Environmental Protection Law No. 6 of 2017. Article 6 specifically outlines the prohibition or restriction of hazardous materials in the Kingdom for environmental reasons, as determined by a regulation issued. In the event that hazardous materials that are prohibited or restricted from entry, import, storage, circulation, or use are introduced into the Kingdom in accordance with the provisions outlined in Paragraph (a) of this Article, the Ministry, in collaboration with pertinent authorities, shall repatriate the hazardous materials to their origin at the expense of the offending party. Additionally, the Ministry shall assume responsibility for any fines, expenses, or losses incurred, without prejudice to any penalties specified in this legislation or any other legal provisions, as well as any other compensation or penalties arising from the incident.

As per the regulations outlined in Article 7, it is strictly forbidden to introduce any form of hazardous waste into the Kingdom's jurisdiction. This includes but is not limited to the act of importing, storing, handling, utilising, disposing of, or discarding such waste. The classification of hazardous waste is determined in accordance with a dedicated system established for this specific purpose. The entity in question is liable for any fines, expenses, and losses that it may have caused, in addition to any penalties outlined in this law or other relevant legislation, as well as any other forms of compensation or penalties that may arise from the incident. Furthermore, as per Article 8, it is strictly forbidden to engage in the collection, transportation, sorting, treatment, incineration,

exhumation, tampering with, disposal, or any other means of disposing of waste, debris, solid or liquid waste in contravention of the conditions, procedures, and sites sanctioned by the Ministry.

As per the regulations outlined in Article 9, it is strictly forbidden to discard any materials, devices, or equipment in water sources, water basins, or marine environments, or within their safe limits. This prohibition extends to any materials that may cause pollution or environmental damage to these sources due to their physical, chemical, or biological properties, or any other cause that may result in a change to their natural properties, temperature, or harm to live organisms. In addition, it is impermissible to dispose of any wastewater that arises from industrial or household activities, or to release, pour, or accumulate it in contravention of the criteria and benchmarks established by the Ministry, or in locations other than those designated by the Ministry in collaboration with the pertinent agencies. Article 10 stipulates that the utilisation of machines, engines, vehicles, or any other sources must not surpass the permissible thresholds for noise and vibration as outlined in the authorised technical specifications, rules, and instructions designated for this objective.

2.2. Actus Rea

The term denotes illicit conduct, comprising three essential components: the unlawful actions, the resulting criminal consequences, and the causal nexus between them. Furthermore, the aforementioned outcome was attributed to the unlawful conduct, thereby establishing a causal relationship (Muhammad 2019).

Criminal behaviour refers to any physical action or series of actions executed by an offender that results in harm to protected interests or places them at risk. The act of polluting the environment involves the introduction of substances, which constitutes a criminal behaviour. Within a specific ecological context, pollution is attained through the introduction, disposal, or seepage of various substances.

Criminal Consequence: The commission of a criminal act may result in a tangible outcome that serves to fulfil the material objective of the offence. In the context of environmental pollution, the legislator has the authority to establish that the commission of an unlawful act is contingent upon the occurrence of a specific criminal conduct.

The causal relationship pertaining to the commission of environmental pollution offences: Causal relationship is the third component that is incorporated into criminal behaviour and its outcome. Criminality For the crime of environmental pollution to be established and the material dependence of the crime to be fully realised, it is necessary to establish a causal link between the criminal conduct and the resulting harm. The commission of said behaviour may result in criminal consequences, as there exists no causal link between the nouns of pure conduct, or verbal pronouns, and said consequences as per legal standards. The occurrence of a result is necessary.

2.3. Mens Rea

Article 63 of the Penal Code in Jordan provides a definition of criminal intent as "the volition to commit an act that is considered a crime according to the legal framework." The establishment of criminal intent requires that the perpetrator consciously and deliberately directs their will towards committing the crime in accordance with the legal specifications. This entails a directed will towards fulfilling all the elements, circumstances, and conditions of the crime, with the perpetrator possessing knowledge of these matters (COMITI 2000).

Merely committing a material act that is punishable by law is not adequate to constitute a crime; rather, it must be accompanied by an element of intent. The Mens Rea is a legal term that refers to the mental state or intention of the offender in relation to the material action. It pertains to the will of the offender and the relationship between the material action and the active one. The Mens Rea, or the mental element of a crime, refers to the culpable mental state of the offender who committed the offence with the requisite intent. The Hungarian government enacted legislation that aimed to suppress criminal activity and provided justification for such measures.

The legal framework pertaining to environmental matters may incorporate the concepts of jealousy or ambiguity. Introducing a novel initiative may pose challenges for the general populace to take notice of it. Consequently, criminal culpability may be absolved if the perpetrator can demonstrate that their actions were based on a misapprehension of the law rather than an intentional violation thereof. It is advisable to take measures to prevent such occurrences, and it is imperative to differentiate between individuals who are not affiliated with the facility, those who operate it, those who manage it, and those who are employed by it. The speaker asserts that the addressee's communication is exempt from the principles of ambiguity and generation in legal interpretation, as the speaker is the intended recipient of said communication. It is presumed that individuals possess knowledge of the law (Al-Dlabeeh, A., Alsharqawi, A.H., Al Kloub, R., Karabsheh, A.-K.O. 2022.).

3. The Penalties of the Crime in Jordan

The Environmental Protection Law No. 6 of 2017 and its subsequent amendments have established penalties for environmental crimes in articles 17-27. According to article 18, facilities that have obtained environmental approval are subject to fines ranging from five hundred to one thousand dinars if they violate the conditions, specifications, and technical rules that are applicable to their respective activities. In the event that an establishment fails to obtain environmental approval and violates the conditions, specifications, and technical rules designated for its activity, it shall be subject to a penalty ranging from one thousand dinars to three thousand dinars. Individuals who breach the conditions of the environmental permit will be subject to a penalty ranging from a minimum of three thousand dinars to a maximum of five thousand dinars. Engaging in high-risk environmental activities without obtaining the necessary environmental licence, as stipulated by this law and its accompanying regulations, may result in a penalty ranging from twenty thousand to one hundred thousand dinars, as well as the closure of the facility until the issue is rectified. According to the environmental permit regulations, individuals who fail to comply with the terms of the permit or neglect to renew it will be subject to a monetary penalty ranging from one thousand dinars to three thousand dinars. According to the regulation, individuals who engage in any activity without acquiring an environmental permit shall be subject to a monetary penalty ranging from five hundred to one thousand dinars. Additionally, the facility in question will be required to cease operations until the issue is resolved.

The aforementioned legal provision, which is Article 19/C of the Environmental Protection Law No. 6 of 2017 and its amendments, stipulates that individuals who contravene the regulations outlined in Article 8 of the aforementioned law shall be subject to punitive measures. These measures may include imprisonment for a minimum of six months and a maximum of one year, a fine ranging from five hundred dinars to two thousand dinars, or both penalties. Furthermore, the court is authorised to seize any materials, tools, or machinery used in the commission of the violation, in accordance with the provisions of this law. In the event that any of the aforementioned materials or tools serve as a mode of transportation, the court may opt to grant their release in exchange for a supplementary fine amounting to fifty percent of the total value of the fines and compensations imposed in the case.

According to Article 20 of the Environmental Protection Law, No. 6 of 2017 and its subsequent amendments, individuals who unintentionally contribute to water pollution may face legal consequences. Such individuals may be subject to a minimum of six months and a maximum of two years of imprisonment, or a fine ranging from one thousand to five thousand dinars.

According to the law, an individual who deliberately contaminates any water source in a non-serious manner shall be subject to a minimum of five years and a maximum of ten years of imprisonment, as well as a fine ranging from twenty thousand dinars to fifty thousand dinars.

According to the law, individuals who deliberately cause significant pollution to a water source, resulting in the prevention of pollution removal or negative impact on its components, will be subject to a penalty of temporary hard labour for a minimum of five years and a maximum of fifteen years. Additionally, a fine ranging from one hundred thousand dinars to one million dinars will be imposed. (Manasra, M.W., Mamari, S.A., Gharibeh, A. Younes, A.S., Alsharqawi, A.H. 2022.)

According to Article 21 of the Environmental Protection Law No. 6 of 2017 and its subsequent amendments, the act of discarding, releasing, spilling, or discharging any substance that poses a significant threat to the marine ecosystem is considered a punishable offence.

According to Article 22 of the Environmental Protection Law No. 6 of 2017 and its subsequent amendments, the act of disposing, releasing, spilling, or discharging any hazardous substance into the natural reserve, its surrounding areas, or the area under special protection is considered a criminal offence.

According to Article 25 of the Environmental Protection Law No. 6 of 2017 and its subsequent amendments, the following actions are considered criminal offences: the removal of coral and shells from their natural habitat in the sea, the act of fishing for marine life, engaging in the trade of any of these items, and causing harm or damage to them.

According to the ruling of Judgement No. 1706 of 2021 by the South Amman Magistrates court, it has been determined that the defendant has been charged with the act of burning asphalt, which resulted in the release of harmful environmental pollutants. It has been established that this particular crime, similar to other criminal offences, necessitates the presence of certain elements.

The initial aspect to consider is the legal foundation. The legal foundation for classifying an action as a criminal offence and ascertaining its corresponding punishment. The legal criminalization of an act is contingent

upon three factors: the presence of a textual provision within the law, which outlines the act as a criminal offence; the existence of a corresponding provision that defines the penalty or precautionary measures for the offence; and the absence of any justification for the act as stipulated by the law. The legal foundation in question is embodied by the verbiage of article (8) within the Environmental Protection Law No. (6) of 2017.

The second element of criminal liability is Actus Rea, which refers to the criminal conduct that comprises three essential components: the criminal behaviour, the criminal outcome, and the causal connection between them. Moreover, it posed a threat to the ecosystem. Regarding the criminal ramifications, environmental crimes are characterised by the detrimental alteration of environmental components and elements, commonly referred to as environmental pollution. This outcome is attributed to criminal conduct, thereby establishing a causal relationship between the behaviour and its effects.

The concept of Mens Rea is defined by the Jordanian legislator in Article 63 of the Penal Code as the intention to commit a crime as prescribed by law. The establishment of criminal intent necessitates that the perpetrator consciously directs their volition towards committing the crime in accordance with the legal specifications. This entails the volition being directed towards fulfilling all the requisite pillars, elements, circumstances, and conditions of the crime, with the perpetrator possessing knowledge of all these aspects.

Based on the evidence presented in the case, it is evident that the defendant knowingly engaged in the act of burning plastic to extract copper, resulting in the emission of environmental pollutants in the surrounding area. Despite being aware of the legal provisions prohibiting such actions, the defendant willfully directed the execution of this activity. The facts of the case, as well as the evidence presented by the investigating authorities, support this conclusion. The contextual factors and the unequivocal admission of guilt by the accused in relation to the alleged offence, underscore the imperative to find him guilty and impose the appropriate statutory sanction.

Consequently, and in light of the aforementioned, the court renders a verdict: Pursuant to the stipulations of Article [177] of the Code of Criminal Procedure, the defendant is found guilty of breaching Article (8) of the Environmental Protection Law, which pertains to the discharge of environmental contaminants, in contravention of Articles [8 and 19/c] of the Environmental Protection Law. Pursuant to the stipulations outlined in Article (19/C) of the aforementioned legislation, the individual in question was subjected to a monetary penalty of 500 dinars, in addition to associated charges.

4. The Penalties of the Crime in Sultanate of Oman

The Oman legislator has stipulated in Article 31 of the Environmental Protection and Pollution Control Law the penalties for violating the specific regulations aimed at safeguarding the environment outlined in Articles 7, 9, 11, 12, 13, 15, 16, and 19. This law imposes sanctions on those who contravene or fail to comply with the legal provisions or violate the prohibitions set by the law, whether absolute or relative. The penalty for such violations is a fine, which shall not be less than 100 Jordanian Dinars and not exceeding 1,777 Jordanian Dinars. It's important to note that the fine increases by 27% daily starting from the fourth day after notifying the violator of the offense's discovery.

The legislator also emphasizes that the penalty will be more severe if the violation persists for more than a month, urging the offender to either cease the unlawful activity or remove the violation.

The legislature has introduced various prohibitions and penalties in the Environmental Protection and Pollution Control Law. For example, in Article 7, it is prohibited to use the Omani environment for the disposal of environmental pollutants in any form or quantity that may lead to pollution. The legislature has also stipulated penalties for violations of these prohibitions, as outlined in Article 30, regarding the disposal of pollutants in natural environmental systems without the necessary permits.

Furthermore, the law includes provisions such as Article 9, which prohibits establishing a source or work area without obtaining an environmental permit to ensure compliance with pollution criteria and discharge specifications, as determined by the minister. Article 11 addresses actions leading to environmental pollution exceeding environmental safety standards, while Article 12 prohibits the discharge of environmental pollutants at the final points of discharge within the source area or work area under specified conditions.

In exceptional cases involving emergency situations due to equipment malfunctions at the source or work area, Article 32 requires immediate notification to the Ministry. Additionally, Article 13 obligates property owners to promptly report any non-compliance with the law's provisions, as well as any incidents resulting in environmental pollution or violations.

Moreover, the legislator has mandated, in Article 14, the establishment of a safety zone for the site chosen for establishing the source or work area to ensure that pollution limits are not exceeded. The pollution should not exceed the permitted limits according to regulations and decisions.

Article 15 requires the adoption of precautionary measures specified by regulations and laws before undertaking construction or the transportation of materials that may produce environmental pollutants. Finally, in Article 16, the legislator obliges the owner of any source or work area with the potential for causing environmental damage to provide an environmental impact study demonstrating that the benefits of granting licenses for activities causing environmental harm outweigh the potential risks.

Additionally, Article 19 prohibits the trading, handling, or disposal of hazardous materials and wastes in the Omani environment without permission from the Ministry.

Conclusion

The present study focuses on the legal framework governing the offence of environmental pollution in Jordan, as stipulated by the Environmental Protection Law No. 6 of 2017 and its subsequent amendments. Environmental pollution is recognised as a significant issue that requires urgent attention. The remarkable advancements that have been made in recent times have posed a significant threat to the security and safety of mankind. The impact of human behaviour on the environment has been widely acknowledged, particularly in relation to the legal entities responsible for implementing measures to reduce pollution. Our study is specifically focused on this aspect, which is a contemporary topic and falls within the scope of environmental protection.

Based on the aforementioned research, the following findings were obtained:

Defining the environment is a complex task, as there is no universally accepted definition. However, it is commonly agreed upon that the environment is comprised of two distinct elements: natural and artificial.

The Jordanian legislative body recognises the dual culpability of both legal entities and individuals for environmental pollution. Holding a legal entity partially responsible does not exonerate individuals. As per the provisions outlined in Articles 15-17 of the Environmental Protection Law, No. 6 of 2017 and its subsequent amendments, individuals who hold responsibility for the management of natural resources may be held accountable for criminal offences committed in this regard. The legal representative, as well as the facility manager or the manager acting in an official capacity, may be subject to punishment as either a principal or accomplice in a crime. Additionally, they may be held responsible for any presumed involvement in the crimes committed. The responsibility for the crime, whether committed intentionally or negligently, ultimately rests with the leader and not the follower. Demonstration of a strong dedication to overseeing and managing individuals under one's authority.

The Sultanate of Oman has demonstrated a commitment to environmental protection and pollution control as part of its constitutional duty to achieve environmental security. To this end, it has enacted various laws, ministerial decisions, and regulations to ensure compliance.

Oman's legislative framework for environmental protection encompasses a combination of obligatory and prohibitive measures aimed at mitigating environmental damage while sustaining developmental progress.

The legislative efforts in Oman encompass a diverse range of penalties, including fines, imprisonment, and activity suspension, designed to establish both general and specific deterrence against environmental violations.

The Omani legislative approach strives to strike a balance between the roles of administrative authorities and individual responsibility in protecting the Omani environment. It does so by granting administrative permits while addressing the issue of environmental pollution, which arises from economic development. The legislative policy generally seeks to regulate rather than entirely prohibit industrial progress, thus preventing the exacerbation of pollution problems and minimizing their impact.

Acknowledgments

The authors would like to thank Sohar University in Oman, Arab Open University in Oman, and Modern Law Firm in Jordan for their support of this research.

Credit Authorship Contribution Statement

Ashraf Mohamad Gharibeh, his contribution in Methodology, Writing – original draft; Writing – review and editing; Data curation, and Supervision.

Mohammed Rashid Ahmed Al Makhmari, his contribution to methodology, writing, review and editing, data curation, and supervision.

Radwan Ahmad Al Haf, his contribution in Methodology, Writing – original draft; Writing – review and editing, and investigation.

Mohammad Njim Ibrahim Elayat, his contribution in Methodology, Writing – original draft; Writing – review and editing; and Data curation.

Ahmad Hussein Alsharqawi, his contribution in Methodology, Writing – original draft; Writing – review and editing.

Declaration of Competing Interest

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.

References

- [1] Abdellaoui D. 2004. Al Himaya Al Jinayiya li Al Biya. (Criminal Protection of the Environment), Master Thesis, Faculty of Law and Political Science, University of Abu Bekr Belkaid, 2004.
- [2] Ahmed, J. Al-Din M. 2000. The role of tax legislation in protecting the environment. Egypt: Unpublished.
- [3] Al-Dlabeeh, A., Alsharqawi, A.H., Al Kloub, R., Karabsheh, A.-K.O. 2022. The Role of International Criminal Law in Violations of the Environment during Armed Conflict. *Journal of Environmental Management and Tourism*, 13(3): 643–648.
- [4] Al-Hasban, E. A. 2011. The Constitutional System of the Right to the Environment in Constitutional Systems, An Analytical Comparative Constitutional Study Studies, Sharia and Law Sciences, 38 (1).
- [5] Al-Khawaldah, M.H.A. *et al.* 2022. Penal Liability for the Oil Leak Incident Heavy Fuel in the Jordanian Port of Aqaba and Its Impact on the Environment *Journal of Environmental Management and Tourism*, 14(3): 754 758
- [6] El-Refaie, A.M., Alsharqawi, A.H. 2022. Legislative Confrontation of the Crime of Environmental Pollution in Jordan Pakistan. *Journal of Criminology*, 14(1): 29–42
- [7] Manasra, M.W., Mamari, S.A., Gharibeh, A. Younes, A.S., Alsharqawi, A.H. 2022. Tort Liability for Environmental Pollution. *Journal of Environmental Management and Tourism*, 13(5): 1294–1299.
- [8] Muhammad Subhi Najm. 2019. 'Usul Almuhakamat Aljaza'iyya (Algerian Criminal Procedure), Dar Al-Thagafah, Amman.
- [9] Muqadas A. 2019. Al Himaya Al Jinayiya li Al Biya Fi Al Tashri' Al Jazay'iri (Criminal protection of the Environment in Algerian Legislation An Analytical Study in the Light of the Algerian Penal Code and Environmental Legislation), A research published in Djillali Liabes University.
- [10] Ouinas Y. 2007. Al'Aliyat Al Qanunia li Himayat Al Biya fi Al Jazayir (Legal Instruments for the Protection of the Environment in Algeria), PhD thesis in Public Law, University of Abu Bekr Belkaid.
- [11] Soleimani M. 2016. Al Biya fi 'Itar Al Tanmia Al Mustadama bayn Al Aliat Al Duwalia was fi Al Qanun Al Duwali (the Environment in Terms Sustainable Development, the International Legal Mechanism, and the International Law), Master Thesis, Faculty of Law, Abderrahmane University of Béjaïa 2016.
- [12] COMITI, Prévention et réparation du dommage écologique, thèse, Lille (2, 2000, 743) pp. spéc. Vol. (1)
- [13] Jordanian Environmental Protection Law No. 6 of 2017 and its amendments.

