

DOI: 10.5281/zenodo.20314787

# ENVIRONMENTAL TERRORISM AS A CRIME UNDER SAUDI LAW: A COMPARATIVE STUDY

Zaki Mohamed Channak<sup>1</sup> and Samer Mohammad Ahmad Al-Qudah<sup>2</sup>

1. Associate Professor, Faculty of Law, Sultan Prince University, KSA

zchannak@psu.edu.sa ORCID No <https://orcid.org/0009-0009-7872-4678>

2. Associate Professor, Faculty of Sharia and Law/Department of Law, Taif University, KSA

samergoza@tu.edu.sa ORCID No <https://orcid.org/0009-0004-8544-8601>

Received: 07/04/2026

Accepted: 08/05/2026

Corresponding Author: Zaki Mohamed Channak

(zchannak@psu.edu.sa)

## ABSTRACT

*This research aims to study environmental terrorism as one of the most serious emerging crimes threatening environmental and national security. It does so by analyzing its various forms, the elements upon which this crime is based, and reviewing the efforts of both the Kingdom of Saudi Arabia and the Arab Republic of Egypt in combating it. The research addresses the elements of the crime of environmental terrorism, which consist of a material element represented by the deliberate commission of an act causing serious pollution or widespread destruction of the environment; a moral element based on the terrorist intent to cause this harm; and a legal element based on the legal text criminalizing the act. A study of Saudi and Egyptian legislation reveals that the Egyptian system includes an explicit provision criminalizing environmental terrorism through its Counter-Terrorism Law 94/2015, which classifies "harming the environment" as a terrorist act when intended to disrupt public order or endanger public safety. This reflects a significant legislative development in addressing environmental threats of a terrorist nature. In Saudi Arabia, research has revealed an advanced legislative framework for environmental protection, encompassing environmental regulations, wildlife protection laws, and the safeguarding of public facilities. This framework also includes institutions such as the Special Forces for Environmental Security and the National Center for Environmental Compliance. However, the Saudi legal system currently lacks a separate provision criminalizing environmental terrorism as a distinct offense, although it addresses serious environmental violations through existing environmental regulations.*

---

**KEYWORDS:** Environmental Terrorism, Emerging Crimes, Environmental Security, National Security, Comparative Study.

---

## 1. INTRODUCTION

In recent decades, the world has witnessed a marked increase in the scale and diversity of environmental challenges, whether as a result of accelerating industrial activities or mismanagement of natural resources. However, the most dangerous of these challenges is the recent transformation of the environment into a theater for terrorist acts aimed at damaging natural resources or polluting essential environmental elements with the intent of undermining security and stability and achieving political, economic, or ideological gains. This development has led to the emergence of a new concept in the fields of criminal justice and security: "environmental terrorism," which is no longer merely an attack on the environment, but has become a direct threat to the security of states and their societies. Moreover, it has become a catalyst for global conflicts amid worsening environmental degradation—such as climate change, desertification, biodiversity loss, and water scarcity—particularly in regions characterized by social and economic fragility, political instability, and weak institutional frameworks (Albakjaji, M., Khammassi, S., & Alshanjityi, Y. 2025).

The danger of eco-terrorism stems from the fact that it goes beyond traditional environmental damage to cause widespread catastrophic effects, extending to public health, food security, and the national economy, and may even threaten social peace and human life itself. Furthermore, this type of crime is often committed using highly dangerous methods, such as the release of chemical or biological contaminants or the sabotage of critical infrastructure and water and energy systems, making it one of the most difficult crimes to detect and one with the most severe long-term consequences.

In the Arab world, national legislatures have begun to recognize the gravity of this emerging type of crime and have sought to enact complementary laws and regulations aimed at protecting the environment on the one hand and strengthening counterterrorism laws on the other. However, the degree of integration between environmental and criminal legal systems varies from one country to another, depending on the level of legislative development and the place of the environment within national security priorities. This highlights the importance of conducting a comparative study of several Arab legal systems to assess the extent to which their legislation addresses the concept of environmental terrorism and to identify the strengths and weaknesses of those systems.

This study aims to shed light on the crime of

environmental terrorism in both the Kingdom of Saudi Arabia and the Arab Republic of Egypt by analyzing each country's legal framework, examining criminalized behaviors and prescribed penalties, and assessing the clarity and scope of the legal definition of this crime. These two countries were selected because they represent different models in terms of the nature and recency of their legislation, and each has its own distinct approach to dealing with environmental crimes and terrorism in general.

The significance of this research lies in its contribution to building a broader scientific understanding of the concept of eco-terrorism, in revealing the extent to which national legislation is prepared to address these threats, and in highlighting the need to develop more specific and stringent legal provisions to ensure the protection of the environment as an integral part of national and public security. By comparing the two legal systems, this research seeks to develop a comprehensive legislative framework that can contribute to strengthening legal efforts to combat eco-terrorism at the regional level.

Accordingly, this study will address the definition of the crime of environmental terrorism, its forms, and the elements constituting this crime, as well as clarify the legal provisions criminalizing it in each legal system, in addition to analyzing the adequacy of these legal frameworks in combating this type of crime by highlighting the efforts made in each legal system to combat such crimes, leading to an assessment of the effectiveness of those systems and the proposal of recommendations to develop the legal framework for addressing this serious crime.

### 1.1. Research Problem

The research problem lies in the fact that the crime of eco-terrorism has emerged as a new type of crime that combines the gravity of terrorist acts with the consequences of environmental crimes, given the direct threat it poses to environmental security, national security, public health, and natural resources. Despite the legislative developments in the Kingdom of Saudi Arabia regarding environmental protection and counterterrorism, Saudi legislation does not contain an explicit provision criminalizing environmental terrorism as a distinct offense, unlike Egyptian legislation, which clearly addresses this type of crime within the Counterterrorism Law. This raises a legal issue regarding the adequacy of current Saudi legal provisions to address acts targeting the environment with terrorist intent, and the need for specific

legislative intervention to fill this legal gap.

A key question regarding the research problem is:

To what extent are current Saudi legal provisions capable of addressing the crime of environmental terrorism in the absence of a separate legal provision criminalizing it, compared to Egyptian legislation? Is Egyptian law a model worth emulating?

The following questions stem from this one:

1. What is the concept of environmental terrorism and its legal basis?
2. What are the causes and forms of environmental terrorism?
3. What are the legal elements required for the crime to be established?
4. How has the Egyptian legislature regulated environmental terrorism?
5. How does the Saudi legal system address environmental crimes of a terrorist nature?
6. What are the legislative shortcomings in the Saudi legal system?
7. What solutions are proposed to address these shortcomings?

### **1.2. Research Objectives**

This study aims to achieve the following objectives:

1. To define the concept of environmental terrorism and identify its legal framework.
2. To analyze the causes and forms of environmental terrorism.
3. To examine the legal elements of the crime of environmental terrorism.
4. To analyze the Saudi legal system's stance on environmental terrorism.
5. To study the position of Egyptian law regarding environmental terrorism.
6. To conduct a legal comparison between the two legal systems.
7. To present legislative proposals to address the shortcomings of the Saudi legal system.

### **1.3. Research Methodology**

The researchers adopted an analytical and comparative approach, examining and analyzing the legal texts of both Egyptian and Saudi legislation to determine the extent to which they regulate the crime of environmental terrorism and their ability to address this crime in practice.

### **1.4. The Impact of Environmental Terrorism on Sustainable Development**

Environmental terrorism is a dangerous phenomenon that threatens the path of sustainable development, as it targets natural resources and the

ecological infrastructure directly or indirectly – whether through the deliberate destruction of forests, water pollution, the sabotage of agricultural land, attacks on oil facilities, or the use of chemical and biological agents that harm the ecosystem.

Environmental terrorism is a dangerous phenomenon that threatens the most critical elements of sustainable development, as it directly or indirectly targets natural resources and the ecological system – whether through the deliberate destruction of forests, water pollution, the degradation of agricultural land, attacks on oil facilities, or the use of chemical and biological agents that harm the ecosystem (Albakjaji M, 2025).

Economically, eco-terrorism causes significant economic losses due to the destruction of natural resources and infrastructure, which increases the costs of repair and environmental remediation and affects investment and economic development. On the social front, environmental terrorism impacts people's lives and health, as it leads to the spread of pollution-related diseases, increases rates of displacement and environmental migration, and affects food and water security. Furthermore, cybercrime leads to ecological imbalance, loss of biodiversity, degradation of agricultural land, and air and water pollution – all of which are essential to achieving environmental sustainability. It also has an impact on food security; by targeting agricultural land or water sources, it leads to a decline in agricultural production, thereby threatening the achievement of one of the Sustainable Development Goals related to ending hunger. Moreover, if sustainable development is based on the principle of meeting the needs of the present without compromising the rights of future generations, then environmental terrorism depletes natural resources and limits the ability of future generations to benefit from them. In short, eco-terrorism impacts several Sustainable Development Goals, such as environmental protection, good health, clean water, climate action, and the conservation of ecosystems.

## **2. SECTION I - THE CONCEPT OF ENVIRONMENTAL TERRORISM, ITS FORMS, AND CAUSES**

In this section, we will shed light on the definition of this crime and clarify its forms and causes in three subsections.

### **2.1. Sub - Section I - Definition of Environmental Terrorism**

Definitions of terrorism have multiplied, and interpretations of it have varied and diverged; the

international community has not reached a comprehensive and universally agreed-upon definition of terrorism. This is due to the diversity of its forms and manifestations, the multiplicity of its methods and patterns, the differing international perspectives and political orientations regarding it, and the varying beliefs and ideologies that states hold toward it; what some view as terrorism, others view as a legitimate act.

From a linguistic analysis, the literal definition of the term "terrorism" is as follows: "rahb" means "to fear," and "arhabahu" and "istahrabahu" mean "to frighten him." As for the word "rahaba" (fear) in the Holy Quran, it appears in various contexts and with several meanings: it is used to mean "they are afraid" (Osama Hussein, 2000, p. 65).

As defined in Article 1, paragraph (2) of the 1998 Arab Convention on Combating Terrorism: "Any act of violence or threat thereof, regardless of its motives or objectives, committed in the execution of an individual or collective criminal plan, aimed at spreading terror among the people, or intimidating them by harming them or endangering their lives, freedoms, or security, or causing damage to the environment or to public or private facilities or property, or occupying or seizing them, or endangering national resources."

It is defined by Law No. 97 of 1992, amending and supplementing the Egyptian Penal Code, as Article 86 thereof defines the phenomenon of terrorism as: "any" use of force, violence, threats, or intimidation resorted to by the perpetrator in the execution of an individual or collective criminal plan with the aim of disrupting public order or endangering the safety and security of society, or to cause damage to the environment, communications, transportation, funds, buildings, or public or private property; or to occupy, seize, or prevent or obstruct the exercise of public authority, places of worship, or educational institutions in their activities; or to disrupt the application of the Constitution, laws, or regulations."

Some have defined it as the use or threat of violence against individuals, endangering or taking innocent lives, or restricting individuals' fundamental freedoms for political purposes, with the aim of influencing the stance or behavior of a targeted group regardless of the direct victims.

Others view it as a violent form of political opposition consisting of violence and threats, which may include physical threats or violence, and may be directed against innocent people or against targets directly linked to the cause the terrorists are pursuing.

Environmental terrorism is defined in Article 2 of

Egyptian Law No. 94 of 2015 as any use of force, violence, threats, or intimidation if committed to achieve a terrorist objective aimed at harming the environment, natural resources, or cultural heritage. Thus, environmental terrorism is the use of a means of terrorist violence if it results in harm to the environment, natural resources, or cultural heritage. Consequently, the crime of environmental terrorism is established if the material element of a terrorist act in general is present in the crime and results in harm to environmental elements, whether these elements are natural or man-made.

In the Kingdom of Saudi Arabia, the Law on Terrorism and the Financing of Terrorism, issued by Royal Decree No. M/16 dated 24/2/1435 AH, defines a "terrorist crime" as any act committed by the perpetrator in the direct or indirect execution of an individual or collective criminal plan, intended to disrupt public order, undermine the security of society and the stability of the state, or endanger its national unity, or to disrupt the Basic Law of Governance or some of its provisions, or to damage the reputation or standing of the state, or to cause harm to any of the state's facilities or natural resources, or to attempt to compel one of its authorities to perform or refrain from performing an act, or to threaten to carry out acts leading to the aforementioned objectives or to incite such acts). Although this text does not explicitly mention the environment, it can be argued that the phrase: "or causing damage to any of the state's facilities or natural resources" carries the meaning of environmental terrorism, which involves harming natural resources, the most important of which is the environment with its natural elements. (Abdulqader Mahfouz, 2022, p. 34).

However, the Saudi regulation does not explicitly define "environmental damage," unlike Law No. (94), which explicitly mentions natural resources and environmental damage, listing each category separately.

As for the environment, it is defined in Article 1 of the Saudi Environment Regulation as: Everything surrounding humans, animals, plants, or any living organism; including water, air, land, soil, living organisms, biodiversity, atmospheric gases, and water bodies, as well as the inanimate objects, various forms of energy, ecological habitats, and natural processes contained within these environments and their interactions with one another.

From this perspective, it becomes clear that the crime of environmental terrorism is: an attack on the environment through the introduction of toxic

substances into the atmosphere or the earth's interior, or through their discharge into water, which poses a danger to both human and animal life. (Musbah, 2019, p. 148).

From the above, we can conclude that environmental terrorism is any hostile act intended to harm the environment in all its elements, with the aim of instilling fear and terror among people to achieve a political, social, or economic objective.

## **2.2. Sub - Section II - Causes of Environmental Terrorism**

There is no doubt that every phenomenon has its causes and factors, and environmental terrorism is no exception. There are many reasons for extremism and the commission of terrorist acts, including the following:

### **2.2.1. Personal and Psychological Causes**

At the individual level, psychological factors play a crucial role in shaping antisocial behavior. In particular, these aspects are subject to psychological and pathological disturbances and fluctuations that can be attributed to genetic or sudden causes. Such psychological factors may be the true motive driving an individual into the world of terrorism. The media plays a major role in stimulating an individual's psychological factors and fueling their spirit of revenge. On the cultural level, the peoples of the developing world suffer from the negativity left behind by globalization, manifested in cultural dependency and an identity crisis, which has created cultural conflicts within a single society, with some supporting terrorism and others opposing it. (Al-Huwidi, 2011, p. 54)

### **2.2.2. Economic causes**

Poverty, dire need, the unequal distribution of resources and wealth, and significant social disparities all serve as powerful motivators for terrorism, with the aim of eliminating these conditions.

### **2.2.3. Political causes**

Political motivation is one of the driving forces behind terrorism. Unjust policies pursued by some states against their citizens, political repression, the marginalization of citizens' roles, the violation of their rights, and the failure to meet the requirements of social balance all constitute a strong motivation for engaging in terrorism with the aim of eliminating these conditions.

Furthermore, the absence of social justice, inequality in the distribution of national wealth,

disparities in basic services and facilities, the misappropriation of public funds, the lack of development, and the neglect or failure to provide for these needs—all of these are causes that serve as a strong motivation for engaging in terrorism. (Al-Fayl, 2011, p. 67)

### **2.2.4. Intellectual Causes**

Misunderstanding the principles and rulings of religion, misinterpreting them, intellectual vacuity, ignorance of the tenets of the true religion, ignorance of the objectives of Sharia, and extremism and fanaticism in thought are all intellectual motives that have led to the rise of terrorism. They have also contributed to the emergence of unjust and oppressive policies. Furthermore, the Islamic world suffers from sharp intellectual divisions and the resulting problems, the most significant of which are ignorance of religion and a departure from adherence to the fundamentals of Islam. (Al-Huwidi, 2011, p. 49)

## **2.3. Sub-Section 111- Examples of Environmental Terrorism**

Traditional terrorist operations mostly involve shooting at a group of victims or carrying out an explosion targeting a specific institution. The environment may also be used as both a means and an end, such as burning forests, poisoning livestock, releasing toxic substances into fish traps to make them dangerous to those who consume them, or destroying a dam to flood the population. Consequently, the effects and forms of environmental terrorism vary depending on the type of weapons and materials used in its operations. We list some forms of environmental terrorism as follows:

### **2.3.1. Nuclear Terrorism:**

Nuclear terrorism is considered one of the most horrific and powerful forms of terrorism that everyone fears. It is an unlimited, large-scale form of terrorism planned with premeditation and intent to inflict death and destruction upon humanity, and it is very difficult to address or put an end to it except in one case: by addressing its causes. If international terrorism was able to claim the lives of nearly three thousand American citizens on September 11, 2001, using two large passenger planes, then nuclear terrorism could claim many times that number of lives using a nuclear device much smaller than an airplane wing (Mahdi Jamal, 2014, p. 42)

The detonation of a medium-yield nuclear warhead results in long-term contamination of an

area spanning several square kilometers with radioactive materials, while the destruction of a nuclear reactor or a spent nuclear fuel storage facility results in contamination of several hundred square kilometers. The destruction of a uranium enrichment plant could contaminate an area of several thousand square kilometers, and the threat of nuclear terrorism takes on tangible dimensions here. Furthermore, many experts consider that a number of highly enriched uranium and plutonium storage facilities in both Russia and the United States are not sufficiently secure against terrorists, let alone those in other countries. (Bruno Terret, 2011, p. 161)

One of the most horrific forms of nuclear terrorism is radioactive contamination. Currently, Iraq and its people have been continuously exposed to nuclear radiation since 1990, as the Second Gulf War resulted in dangerous radioactive contamination equivalent to seven atomic bombs due to the use of depleted uranium munitions by U.S. forces. Furthermore, the use of enriched uranium against Iraq has caused a threefold increase in miscarriages among Iraqi women compared to 1989, in addition to a sevenfold increase in cancer cases. The damage has also extended to include soil, agricultural products, and the air, where varying concentrations have been recorded. The Iraqi Ministry of Health also announced that there are more than 140,000 Iraqis suffering from cancer. (Abdulwahab bin Rajab, 2006, p. 99)

### **2.3.2. Chemical Terrorism**

Chemical terrorism is another form of weapons of mass destruction and constitutes a major environmental crime. Some chemical weapons have been used to contaminate food through various chemical compounds, including, for example, the contamination of fish, food and agricultural products, grains, and flour with mercury and arsenic compounds, as well as the contamination of the air with hydrogen fluoride gas, which settles on vegetation and is subsequently ingested by animals, ultimately into milk and livestock meat.

In general, there have been many such incidents that have caused serious environmental damage, in addition to affecting human health and the economy. Examples include the Union Refinery fire in the United States, the Pemex storage tank explosion in Mexico, the Bhopal disaster in India, and the Danube River pollution disaster. (Abdulwahab bin Rajab, 2006, p. 105)

### **2.3.3. Bioterrorism**

It is well known that weapons of mass destruction

are used in major wars and require advanced technology; however, today, as we enter the 21st century, the world is witnessing a form of terrorist warfare that is entirely different from traditional wars. While the use of nuclear weapons is limited to those who possess them due to their complexity, and while chemical weapons require advanced technology, biological warfare is accessible to everyone and is ever-present in both old and new wars. In the past, hostile forces used missiles containing germs carrying deadly diseases such as the plague, malaria, smallpox, or other illnesses. With the advancement of weapons and technologies, the cultivation of germs in laboratories, and the revolution in genetics, this new century is ushering in the spread of slow death.

Biological terrorism has now spread to encompass all aspects of human life, taking on many different forms to ensure rapid spread and infection, leveraging the outputs of biotechnology and genetic engineering to spread destruction and death among the peoples of the world.

Among the examples of acts of bioterrorism is the terrorist attack involving the release of "sarin gas" in the Tokyo subway system on March 20, 1995, when members of a Japanese religious cult called "Aum Shinrikyo" released the nerve agent "sarin" at a Tokyo subway station. This terrorist attack resulted in the deaths of 19 people and injured approximately 5,500.

Another example is the letters contaminated with anthrax that were sent to the U.S. government in the aftermath of the September 11, 2001, attacks, which struck fear not only in the United States, but the entire world, and in the wake of which a conference on bioterrorism was held in the French city of Lyon in May 2005 to discuss how to prepare for this form of terrorism, attended by more than 500 police officers, scientists, and doctors. (Rifaat Rashwan, 2006, p. 13).

## **3. SECTION II - ELEMENTS OF THE CRIME OF ENVIRONMENTAL TERRORISM**

For the crime of environmental terrorism to be established, the general elements of a crime must be present: the legal element, the material element, and the subjective element. In addition to these general elements, there is a specific element, namely the intent to commit terrorism—that is, committing an environmental crime with a terrorist intent, whether political, economic, or social.

### **3.1. Section 1- The Legal Element of the Crime of Environmental Terrorism**

The principle of legality of crimes and punishments is one of the fundamental principles upon which modern criminal law is based. It stipulates that, for a crime to be punishable, there must be a clear and explicit criminal provision that defines the elements of the crime and the conditions that must be met in the act for it to be considered a crime and constitute a violation of a social interest worthy of protection. The same applies to crimes of environmental terrorism, which must be based on provisions that define and specify their elements.

The legal element is based on the existence of an explicit legal provision defining the acts that constitute environmental terrorism. Mahmoud Naguib Hosni has emphasized that the principle of legality of crimes and punishments requires that criminalization be specific and clear, particularly in compound crimes such as environmental crimes of a terrorist nature (Hosni 2009, p. 112).

Arab counterterrorism legislation – such as that of Egypt and Saudi Arabia – includes provisions criminalizing the use of nuclear, chemical, or biological materials if such use results in serious environmental harm, in line with international criminal policy regarding the criminalization of large-scale attacks on the environment. (Sarour 2012, p. 221)

International environmental conventions such as the Basel Convention also constitute an important standard for determining the severity of environmental acts; although they are not criminal in nature, they serve as a reference for assessing acts involving the transboundary movement or dumping of hazardous waste. (Abdul Hamid 2015, p. 74)

### **3.2. Sub - Section II - The Material Element of the Crime of Environmental Terrorism**

The material element of a crime can generally be defined as the totality of physical elements through which a person, upon committing the act, deviates from legislative norms. (Al-Alfi, 2013, p. 219) That is, the material element of the crime is represented by the external manifestations of the crime, which are a tangible, physical entity connected to the material aspects of the crime and which can be perceived by the senses (Channak, 2026).

The material element of the crime of environmental terrorism can also be defined as any act that results in a physical emission causing harm to the environment or to human, animal, or plant health, with the intent to instill terror and fear; it is

criminal conduct committed by the perpetrator through active or passive behavior that results in environmental harm for terrorist purposes. (Musbah, 2019, p. 159)

The material element of the crime of environmental terrorism consists of the act, the result, and the causal relationship between the act and the result. As for the act, as indicated in the definitions above, it consists of the perpetrator introducing substances harmful to the environment, whether through active or passive conduct. The result of the crime of environmental terrorism is the disruption of one of the elements of the environment in all its components. The causal relationship is the link between the terrorist behavior committed by the perpetrator and the criminal result; there must be a connection between the act and the criminal result, otherwise the material element of the crime would collapse. (Al-Maaitah, Al-Afif, 2024, p. 8)

### **3.3. Sub - Section 3 - The Mental Element of the Crime of Environmental Terrorism**

The crime of environmental terrorism was defined in the first section of Chapter One as all acts committed against the environment or the threat to commit such acts by individuals or groups with the intent to harm human life or health or the natural environment, to instill terror and fear among individuals, or to endanger their security in order to achieve specific objectives.

Based on the above definition, it is important to note that for the crime of environmental terrorism to be established and its elements to be fulfilled, the motive behind the act must be considered; it must target the environment with the aim of destroying it to disrupt public security and spread fear among members of society. In other words, if the objective of the act committed by the perpetrator is specific and linked to a goal that does not fall within the concepts of terrorism – such as a material objective – then the act does not qualify as an act of environmental terrorism but rather falls under the category of traditional crimes violating environmental law. Furthermore, like other crimes, the crime of environmental terrorism requires the presence of criminal intent with its two elements: first, knowledge, and second, will. (Suhaib Al-Maaitah, Isa Al-Afif, 2024, p. 9) Furthermore, the mental element of the crime of environmental terrorism requires the presence of both general intent and specific intent (terrorist intent).

#### **4. SECTION III - NATIONAL EFFORTS TO COMBAT ENVIRONMENTAL TERRORISM**

International and national efforts have converged in the fight against international terrorism, particularly with regard to criminalizing terrorist acts that harm the environment. In this regard, numerous national laws have been enacted to curb these crimes, which threaten human life and natural resources.

##### **4.1. Sub - Section 1-Efforts by Saudi Authorities Regarding Environmental Terrorism**

###### **4.1.1. Environmental Protection in the Kingdom of Saudi Arabia:**

Environmental protection in the Kingdom of Saudi Arabia refers to the systems and supporting measures implemented by relevant authorities to preserve the environment and maintain its balance within the Kingdom. The General Environmental Law, Issued by Royal Decree No. (M/165) dated 19 Rabi' al-Thani 1441 AH, corresponding to July 10, 2020 AD, defines environmental protection as the environmental protection includes: preventing pollution, mitigating its severity, reducing environmental degradation, and ensuring the achievement of sustainable development; this is done through adherence to the standards, criteria, and preventive or remedial procedures related to the environment in accordance with the provisions of the system and regulations. To protect the environment and preserve wildlife, the Kingdom has issued a number of regulations and laws, including the Regulation on Protected Wildlife Areas, the Regulation on Hunting Wild Animals and Birds, the Regulation on Trade in Endangered Wildlife Species and Their Products, and the Regulation on Municipal Solid Waste Management. Under this framework, the Kingdom is the initiator of the largest environmental restoration project in history: the Gulf War Compensation Project (1411 AH / 1991 AD), which was completed in 1434 AH / 2013 AD at a cost of over \$1.1 billion. (Safahi, 2021, 2615)

###### **4.1.2. Specialized Environmental Centers in Saudi Arabia:**

The Kingdom has established five specialized centers in the field of the environment, which were announced in Rajab 1440 / March 2019, namely: The National Center for Vegetation Development and Combating Desertification, the National Center for Waste Management, the National Center for Environmental Compliance, the National Center for Wildlife Development, and the National Center for

Meteorology.

The Kingdom plays multiple roles in environmental conservation, including the implementation of numerous environmental programs and initiatives that have contributed to a reduction in carbon dioxide emissions of 28 million tons annually, achieved through the replacement of thermal technologies and the expansion of the use of environmentally friendly technologies. (Al-Haddad, 2023, 174)

Attention has extended to all environmental aspects in the Kingdom through institutions, initiatives, and events. In 1437 AH / 2016 CE, the King Salman Program for Environmental Awareness and Sustainable Development was announced, aimed at enhancing community participation in localizing sustainable development in the Kingdom. The Kingdom also hosted the Fifth Gulf International Forum and Exhibition on Environment and Sustainable Development in 1436 AH / 2015 CE. In 1437 AH / 2016 CE, the King Salman Program for Environmental Awareness and Sustainable Development initiative was implemented, aiming to enhance community participation in localizing sustainable development in the Kingdom. (Safahi, 2021, 2632)

###### **4.1.3. Diversity of Environmental Protection in Saudi Arabia:**

The Kingdom's commitment to environmental protection has encompassed rare and endangered species of animals, plants, and both terrestrial and marine birds. In 1406 AH / 1986 AD, the National Commission for Wildlife Conservation and Development was established, based on the incorporation of the environment and its protection into the Basic Law of Governance pursuant to Article 32 thereof, which stipulates the state's commitment to preserving and protecting the environment. (Al-Tayeb and Jarrar, 2015, 174)

The Kingdom's expansion of environmental protection led to the designation of 15 protected areas representing most of the Kingdom's ecosystems, covering approximately half of the area intended for protection in accordance with international standards and the national system for proposed protected areas, and a number of protected area managers were appointed.

Article 9 of the new Environmental Law, enacted in 2020, addresses air quality protection by prohibiting the use of any substances that have a negative impact on air quality or deplete the ozone layer. This article obligates individuals and companies to take the necessary measures to

implement the plans—prepared by the competent authority—related to the phased elimination of such substances, in accordance with the regulations. The government is responsible for identifying substances harmful to the air and the ozone layer and preparing the necessary plans for their elimination under its supervision.

Article (10) also prohibits the import, export, re-export, circulation, manufacture, or use of ozone-depleting substances—as defined by the competent authority—without obtaining a permit or license, in accordance with the regulations.

It also prohibits the import, export, re-export, manufacture, or use of devices, equipment, and products—whether new or recycled—and prohibits the import of used devices, equipment, and products containing any ozone-depleting substances without obtaining a permit or license, in accordance with the regulations.

The two articles are closely integrated within the framework of identifying substances harmful to air quality and the ozone layer, developing practical plans for their disposal, and prohibiting their import, as well as the import, export, manufacture, or use of new or used devices containing substances harmful to air quality or the ozone layer (Albakjaji, M., Alhussein, H. S., & Baroudy, J. E. 2025).

The efforts of government agencies have been integrated with those of major companies and institutions in the Kingdom in the field of environmental protection through a number of initiatives, including the Saudi Aramco initiative in 1383 AH / 1963 AD to develop the first environmental plan for pollution control, which focused on controlling coastal water pollution and monitoring drinking water and wastewater, and SABIC's initiative, since its inception, to select the latest appropriate technologies to minimize and limit the negative impacts on the environment in its operations, as well as the environmental monitoring program implemented by the Royal Commission for Jubail and Yanbu, aimed at monitoring air and water quality and managing industrial waste (Eissa, 2016, 23).

#### ***4.1.4. Environmental Protection Institutions in the Kingdom of Saudi Arabia***

In line with Saudi Vision 2030, the Kingdom established the Special Forces for Environmental Security to coordinate with relevant security and environmental agencies in implementing and enforcing environmental regulations, and to carry out comprehensive tasks and responsibilities covering environmentally significant areas

throughout the Kingdom.

Institutional efforts also included the establishment of the Saudi Society for Environmental Sciences at King Abdulaziz University, driven by a commitment to environmental affairs and protection through universities and professional institutions. Meanwhile, the Saudi Environment Society works to develop sustainable development programs, enrich volunteer work, and strengthen the private sector's role in serving environmental causes in the areas of environmental protection and conservation. (Samir, 2013, 154)

Among the Kingdom's environmental efforts, several initiatives to conserve marine life have emerged, including the Fisheries Resources Research Center, the College of Marine Sciences at King Abdulaziz University, the Saudi Aquaculture Society, the Fisheries Research Center at King Faisal University, the Red Sea Research Center at King Abdullah University of Science and Technology, and the National Program for Environmental Awareness and Sustainable Development initiative, which aims to raise awareness of environmental issues and increase individual and collective responsibility for their preservation. (Ahmed & Ahmed, 2018, 1247)

In an international context consistent with the Kingdom's role in the United Nations, His Royal Highness Prince Mohammed bin Salman bin Abdulaziz Al Saud, Crown Prince and Prime Minister, announced in 1442 AH / 2021, the Saudi Green Initiative, which aims to plant 10 billion trees, and the Middle East Green Initiative, which aims to plant 40 billion trees. Both are part of the Kingdom's Vision 2030, which places the highest priority on environmental protection. In 1439 AH / 2018 AD, the Kingdom also approved the National Environmental Strategy, which includes 65 environmental initiatives with a total cost exceeding 50 billion riyals, addressing various environmental aspects such as strengthening environmental commitment, enhancing waste management, and protecting marine and terrestrial environments.

The Kingdom coordinates and communicates with international organizations specializing in environmental affairs. In 1443 AH / 2021 AD, it signed three agreements with the International Maritime Organization in London to support initiatives focused on the protection and development of the marine environment, in line with the objectives of the National Strategy for Transport and Logistics, and in line with the Kingdom's Vision 2030. During its presidency of the G20 in 1441 AH / 2020 AD, it launched two global environmental initiatives: namely, an initiative to reduce the

degradation of land and natural terrestrial habitats in forests, grasslands, and other terrestrial ecosystems, and an initiative to establish a global platform to accelerate research and development for the conservation of coral reefs, with the aim of supporting research, studies, and information exchange to enhance the protection and conservation of coral reefs. (Wassaf, 2021, 84)

Although Saudi Arabia has made significant efforts to protect the environment and enhance environmental security by updating environmental regulations, issuing regulations to protect wildlife, combating desertification, and tightening controls on hazardous waste, Saudi legislation – to date – do not include explicit provisions criminalizing “environmental terrorism” as a separate criminal offense.

Existing regulations criminalize serious environmental offenses, intentional pollution, the transport of hazardous materials, and the destruction of natural resources, and impose severe penalties for them; however, they do not use the term “environmental terrorism” nor do they establish a specific punitive framework for it within the context of counterterrorism.

#### **4.2. Sub - section II - Efforts by Egyptian Legislators Regarding the Crime of Environmental Terrorism**

In Law No. 94 of 2015, Egyptian legislators filled the legislative gap regarding the crime of environmental terrorism by classifying it as a terrorist act resulting in harm to the environment, as stipulated in Article 2 of the aforementioned Decree-Law on Combating Terrorism.

The legislature punishes perpetrators of terrorist acts that result in environmental harm—whether through the pollution of water, air, or other natural or man-made resources, or, more generally, any component of the environment—with a prison term of no less than ten years; Thus, the legislature has filled the legislative gap for this crime; any terrorist act targeting elements of the environment carries a specific penalty set by the legislature in Article 19 of the law as imprisonment with hard labor for a term of not less than ten years, An example of this is a person who poisons water for terrorist purposes; such a person is subject to the provisions of Article (2) of Decree-Law No. 94 of 2015, and the penalty set forth in Article (19) of the same law applies to them. All environmental terrorism crimes that cause harm to environmental elements are treated accordingly. (Ahmed Mabrouk, 2019, p. 36)

#### **4.2.1. Legislative Efforts Regarding Environmental Terrorism in Egyptian Law**

Terrorist crimes have taken on various and innovative forms for hostile purposes, whether military or civilian, among groups or individuals, particularly terrorist groups that have begun carrying out their terrorist operations using weapons of mass destruction (biological, chemical, radiological), aided by the fact that biological and chemical agents can be manufactured in smaller, less conspicuous facilities than before, as the means used have civilian legitimacy, and hostile actions can take the form of preventive measures, as there are still no distinguishing marks between hostile (illegal) biological, chemical, and radiological agents and legitimate civilian ones. (Mustafa Hafez, 1996, p. 333)

Given the gravity of these crimes, Egyptian lawmakers have worked to address emerging terrorist crimes involving weapons and agents (biological, chemical, and radiological) both before they are committed and to mitigate their effects after they occur. Accordingly, legislative measures have been enacted to address the use of toxic and pathogenic substances (chemical, biological, and radiological) and their various applications for terrorist purposes, in accordance with Law No. 4 of 1994 and its implementing regulations, No. 338 of 1995. (Environmental Law No. 4 of 1994)

The legislature has specified penalties for the unauthorized handling and importation of hazardous materials and waste, with a prison term of no less than five years and a fine of no less than twenty thousand pounds and no more than forty thousand pounds for anyone who violates the provisions of Articles 47/32/29 of the aforementioned Environmental Law, The offender is also required to re-export the hazardous waste involved in the offense at their own expense.

From the foregoing, it is clear that there is legislative interest in the scientific regulation of the import, handling, trade, and re-export of waste, as well as methods for treating chemical substances—particularly toxic ones used in certain industries—to protect human health and the environment. The most important legislation enacted is Law No. 138 of 1980, which regulates the import, handling, and trade of chemicals and their preparations used in industry.

With regard to radioactive materials, Law No. 59 of 1962 and its various amendments were enacted concerning the use of ionizing radiation and the licensing thereof, In the field of occupational safety, the use of chemical, radioactive, and biological substances is regulated by the legislative provisions of Labor Law No. 12 of 2003 and its implementing

decrees.

#### **4.2.2. Egyptian Legislation and Securing the Home Front (Civil Defense) Against Environmental Terrorism**

Law No. 75 of 1981 on Civil Defense and its amendments, as well as the Minister of Interior's decree on the reorganization of the Civil Defense Authority to establish the Supreme Council of Civil Defense in 1990, were issued. This council is responsible for securing the home front and protecting lives, facilities, and economic assets against all hazards, such as fires, explosives, harmful radiation, and general disasters; taking all land and river rescue measures to prevent or minimize damage; providing both preventive and response measures; and updating all preparations and human and civil expertise to achieve maximum protection under all circumstances, thereby ensuring economic and psychological stability. There is also Ministry of Interior Decree No. 48 of 1956 regarding the procedures to be followed during air raids.

Law No. 148 of 1959 also regulated air raid warning systems, firefighting, bomb detection, the formation of teams to detect atomic radiation, and other measures designed to protect people and the environment. It should also be noted that Law No. 10 of 1965 added numerous provisions regarding the preparation of protective measures for facilities, projects, and infrastructure against the dangers of nuclear, chemical, and biological warfare.

However, these additions were primarily driven by the evolution of warfare and the use of the latest methods in its conduct, particularly given that the time gap between the two laws was approximately six years; Consequently, some 40 years after its enactment—and with the increasing threat of wars and terrorist operations in which biological, chemical, and radiological weapons may be used—this law has become ill-suited to the realities of the Egyptian environment.

Each entity addresses the issue individually, based on a different, uncoordinated approach rather than a comprehensive one. This results in inadequate legislative measures lacking coordination and a unified vision for effective and integrated procedural and regulatory measures, both prior and subsequent. that would ensure adequate legal protection against such multiple and evolving risks and threats. Consequently, the multiplicity of authorities and jurisdictions among numerous competent and non-competent bodies and agencies may lead to conflicts

between them, and perhaps even conflict in terms of jurisdiction over supervision, implementation, or follow-up. The matter requires the establishment of a supervisory body to coordinate among all these multiple entities, and the activation of the roles of both the Supreme Council for Civil Defense and the Supreme Council for Radiological Emergencies, in partnership with the Ministry of Defense in both military and civilian domains; to ensure environmental (biological, chemical, and radiological) safety and to avoid environmental and health risks, as is the case in comparable legislation. Egyptian legislation also lacks provisions specifying a system of responsible response in the event of a terrorist disaster—despite the fact that the Environmental Law includes provisions regarding the participation of citizens, individuals, and institutions in providing financial and other assistance, similar to the provisions of the U.S. Environmental Protection Agency (EPA). There is a lack of clarity in the law regarding the regulation of liability and the organization of duties involving everyone's participation, without any reference to the regulation of their rights to compensation in the event of such emergencies, whether from natural persons or legal entities in the public or private sectors, which necessitates a review of the legal framework in Egypt to address such crimes that pose a threat to humans, the environment, and society—namely, environmental terrorism. (Hafez, 2005, p. 17)

#### **5. CONCLUSION**

In conclusion, and in light of all that has been discussed, it is clear that environmental terrorism represents one of the most serious contemporary challenges due to its direct assault on the environment, human beings, and economic resources, as well as the long-term and transnational consequences it causes. The analytical examination of the elements of this crime has shown that it combines environmental and terrorist characteristics, as its material element is based on acts of sabotage with far-reaching effects targeting fundamental components of the environment, while its moral element is based on a complex criminal intent aimed at causing serious environmental harm to achieve a terrorist or destructive objective. The study also revealed that the legal elements of this crime remain a subject of debate in many legislations, and that international jurisprudence calls for the development of a specific legal framework commensurate with its gravity.

**Acknowledgment:** The authors would like to acknowledge the support of Prince Sultan University for

paying the Article Processing Charges (APC) of this publication.

## REFERENCES

- Abdel Hamid, M. S. (2015). *Environmental crimes in criminal legislation*. Dar Al-Fikr Al-Arabi.
- Abu Shamah, A. (2001). *Confronting non-traditional disasters* (1st ed.). Naif Arab University for Security Sciences.
- Ahmed, R. A. H. M., & Ahmed, M. A. (2018). Mechanisms for environmental protection in Sudanese legislation and international treaties: A comparative study. *Scientific Journal of Imam Al-Mahdi University*, (11).
- Al-Alfi, N. M. M. (2013). The nature of the material element constituting crime and criminal participation. *Judicial Journal*, (3), 219–229.
- Albakjaji, M. (2025). Sustainable Development Goals in International Law: A review of challenges in Implementation and Integration . *Journal of Posthumanism*, 5(2), 1284–1295. <https://doi.org/10.63332/joph.v5i2.503>
- Albakjaji, M., Alhussein, H. S., & Baroudy, J. E. (2025). Legal and Policy Frameworks for Climate and Air Protection in Saudi Arabia: A Review of Progress. *Journal of Posthumanism*, 5(6), 4820–4840. <https://doi.org/10.63332/joph.v5i6.2695>
- Albakjaji, M., Khammassi, S., & Alshantqityi, Y. (2025). The Role of the International Environmental Cooperation in Achieving Sustainable Peacebuilding in International Relations: A Comprehensive and Critical Analysis. *Journal of Posthumanism*, 5(4), 1257–1268. <https://doi.org/10.63332/joph.v5i4.1222>
- Al-Fil, A. (2011). *Cybercrime*. Dar Zain Publications.
- Al-Haddad, O. S. A. (2023). *Protection of the terrestrial environment from pollution under national legislation and regional and international agreements*. Arab Books and Studies House.
- Al-Huwaidi, O. (2011). *Combating terrorism crimes*. Dar Wael Publishing.
- Al-Maaytah, S., & Al-Afif, I. (2024). The legal nature of environmental terrorism under international law. *Jordanian Journal of Law and Political Science*, 16(2). <https://doi.org/10.35682/jjpls.v16i2.669>
- Al-Tayeb, N. B. T., & Jarrar, B. B. M. (2015). *Protection of the environment from pollution resulting from means of transportation*. Naif Arab University for Security Sciences.
- Amelia, J. (2002). *International terrorism and the contemporary world order*. Dar Al-Fikr.
- Amer, T. (2008). *Environmental pollution and international relations* (1st ed.). University Institution for Studies, Publishing and Distribution.
- Bruno Tertrais. (2011). *Nuclear weapons between deterrence and danger* (A. Al-Idrisi, Trans.). Abu Dhabi Authority for Culture and Heritage.
- Channak Zaki, *The Saudi Criminal Law – General Part: Theory of Crime and Punishment*, 11th Edition, 2026, Dar al-kitab aljamee Library, Riyadh & Khwarizm Publishing House, Jeddah, KSA.
- Eissa, L. (2016). *Environmental protection and sustainable development: Prospects and challenges*. Dar Al-Fikr Al-Jami'i.
- Hafez, S. (2005). Environmental terrorism crimes: A global and local perspective. *National Criminal Journal*, 48(3). <https://doi.org/10.21608/NCJ.2005.308943>
- Husni, M. N. (2009). *Explanation of criminal law: General section*. Dar Al-Nahda Al-Arabiya.
- Mabrouk, A. (2019). *Criminal confrontation of environmental terrorism*.
- Mahfouz, A. (2022). Criminal confrontation of environmental terrorism crimes. *Scientific Journal of the Faculty of Sharia and Law, Al-Azhar University*, 34(2). <https://doi.org/10.21608/jfsu.2022.247890>
- Mohi Al-Din, O. H. (2000). *Terrorism crimes at the international and local levels* (1st ed.). Arab Office Publishing House.
- Mosbah, O. (2019). Objective criminal policy for confronting environmental terrorism. *Security and Law Journal*. <https://doi.org/10.54000/0576-027-002-004>
- Mostafa Hafez, S. (1996). *Legal protection of the aquatic environment* (1st ed.). Arab Publishing House.
- Rashwan, R. (2006). *Environmental terrorism in criminal law: A critical analytical study* (1st ed.). Dar Al-Nahda Al-Arabiya.
- Sadeq, A. A. (2006). *Environmental crimes and methods of confronting them*. Naif Arab University for Security Sciences.
- Safahi, I. (2021). Environmental protection in Saudi Arabia in light of Vision 2030. *Journal of the Faculty of Sharia and Law*, 23(7). <https://doi.org/10.21608/JFSLT.2021.217914>
- Samir, Q. (2013). *Environmental protection, combating pollution, and promoting environmental awareness*. Dar Al-Hamed Publishing and Distribution.

Sarour, A. F. (2012). *The mediator in criminal law: General section*. Dar Al-Shorouk.

Wasaf, A. M. (2021). *The role of waqf in achieving economic development: An environmental protection approach in the Kingdom of Saudi Arabia*. Kunooz Ishbilila Publishing and Distribution.