

Research Article

The Principle of Preventing Environmental Harm

Amna Issam Mahdi^{1*}

¹AI-Iraqia University/ College of Medicine. Email: amna.e.mahdi@aliraqia.edu.iq

*Correspondence: amna.e.mahdi@aliraqia.edu.iq

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Abstract: This study examines the principle of preventing environmental harm, which seeks to avert damage before it occurs by implementing proactive measures to mitigate environmental pollution. These preventive measures constitute a framework of principles that guide management in safeguarding the environment from contamination. The principle of environmental harm prevention serves as a cornerstone in environmental protection, necessitating management's adherence to it to prevent detrimental human activities. Both the Iraqi and comparative constitutions affirm the individual's right to a healthy and unpolluted environment, thereby granting environmental rights significant constitutional status. Consequently, the constitution imposes a binding obligation on the state and management to uphold and safeguard the environment against harm. This study explores the principle of environmental harm prevention by dividing the analysis into two sections. The first section elucidates the concept of this principle, the general principles governing it, and its areas of application, while the second section examines the procedures for its implementation.

Keywords: Principle of Prevention, Environmental Harm, Constitution, Environment, Preventive Measures

1. Introduction

The principle of avoiding causing damage to the environment is a core research focus in the strategy formulation to control pollution and relieve the detrimental effects of man's activity [1; 2]. The escalating pollution levels are largely the result of unsustainable environmental practices, which are not only harmful to the natural ecosystems but also carry major health risks to humans and biodiversity [3; 4].

This concerning trend demands immediate and appropriate reparation to the states and people who are affected by the damage to the environment, and to punish the guilty [5]. In response to these growing concerns, contemporary nations have increasingly prioritized environmental protection and sustainability by strengthening regulatory frameworks designed to safeguard ecological balance [6]. Governments, policymakers, and international organizations are actively working to establish stringent environmental regulations, promote renewable industrial practices, and encourage green technological solutions. Governments, policymakers, and world organizations are working day and night to establish rigorous environmental laws, promote green industrial practices, and promote green technological solutions [7].

Environmental pollution poses a challenge to the world, cutting across geographical lines, and impacts both the developing and the developed world. Considering the long-term implications, scientists are constantly developing new ways to avoid causing damage to the environment, reducing emissions, and developing ecologically friendly substitutes. It calls for collective effort, long-term strategy, and research to ensure the future generation gets to live in a clean world [8; 9]. A range of conferences, seminars, and workshops—held at local, regional, and international levels—serve as platforms to address pollution and the prevention of environmentally harmful activities. These gatherings facilitate the exchange of knowledge among policymakers, researchers, environmentalists, and industry leaders, fostering discussions on environmental protection strategies, sustainable development practices, and the formulation of pollution-mitigation policies.

International conferences also played a significant role in the making of global environmental agreements, including the Paris Agreement, to combat climate change through the reduction of greenhouse gases. Also, regional summits ensured neighbouring countries collaborated in the event of transboundary environmental problems, including air and water pollution. Seminars dealing with the protection of the environment enlighten people, businesses, and society in general about the need to transition to green lifestyles, minimize wasteful practices, and employment of green technologies [10]. Additionally, workshops provide hands-on experience in pollution control, the use of renewable resources, and conservation techniques, equipping

professionals and local stakeholders to gain the skills required to conduct green practices. Through all this, the world continues to progress in the path to a healthier and green future.

Governments are obligated to maintain a clean and habitable environment, protect natural resources, and actively work towards pollution reduction. This can only be effectively achieved by employing all available mechanisms to prevent environmental degradation [11; 12]. Constitutional frameworks in various jurisdictions unequivocally enshrine the clean environment right, highlighting the necessity to put an end to the harmful practices resulting in damage to the environment. The harmful effects of pollution are not specific to any specific country, but are global, spreading to numerous countries [13].

Consequently, the principle of environmental harm prevention has evolved beyond a mere legal requirement to become an inherent right, empowering individuals to safeguard the environment from pollution-inducing activities. Non-compliance with this principle necessitates legal accountability and appropriate compensation [14]. Addressing environmental damage continues to be an issue, most notably because the issue of compensation poses significant issues. Pollution typically leaves long-term damage to the environment, the impact of which could only reveal itself in the long run, making timely realization and remedying problematic [15].

The prevention of environmental damage remains the most real issue of the day. At the rate at which the world continues to become more and more polluted through man's unsustainable ways, the world's need to be preserved has never felt so real. Environmental damage poses tremendous threats to the integrity of the ecosystem, public health, and biodiversity. It's not merely a theoretical objective to avoid such damage, but also a preventive measure to prevent harmful practices from leading to irreparable damage.

This strategy targets identifying and minimizing harmful practices, building up sustainable practices, and minimizing harmful impacts [16]. Among the most disturbing effects of man's activity to shift the ecological balance are water and air pollution, global climate shift, and depletion of biodiversity. The employment of vast quantities of fossil fuels, factory effluent, and the felling of trees have exaggerated climate instability, resulting in the rising of the sea, extreme climate events, and ecological catastrophe [17]. Additionally, industrial waste also continues to pollute water bodies, posing risks to human health and aquatic life. These challenges necessitate immediate intervention, as delaying preventive measures exacerbates environmental damage and significantly increases the cost of mitigation [18].

Governments play a crucial role in regulating pollution, promoting the sustainable use of resources, and advancing green initiatives. International agreements, such as the Paris Agreement, are designed to address climate change by targeting reductions in greenhouse gas

emissions [19]. In addition, most countries have put in place tough environmental laws to protect the natural world and corporate environmental accountability. Yet, regulation alone isn't enough; public awareness and participation are just as essential. People and businesses are required to become involved in reducing wasteful practices, energy conservation, and the use of eco-friendly products.

Another fundamental principle in the protection of the environment is the precautionary principle, the principle calling for preventive action in the case of scientific uncertainty. This principle most closely relates to the modern environmental threats, including chemical and plastic pollution. A majority of the chemicals used in industries and consumer products have long-term, detrimental effects to the health of humans and the environment by proactively addressing these risks, irreversible damage can be avoided, ensuring that future generations inherit a habitable planet.

Although some decry the restrictive impact of tight regulation, the long-term payoff from green development justifies the short-term sacrifices. Green energy, green tech, and green practices are investments in the economic security and health of the environment. Nations who maintain the environment normally benefit economically in the long run, thanks to clean air, clean water, and preserved natural resources, resulting in the overall health and economic security in society.

Furthermore, protecting the environment isn't just a responsibility in law, but also to maintain the health and well-being of generations to come. It's everyone's responsibility, all governments, and all people to reduce the impact they impose on the environment and to avoid causing the degeneration to the earth. Climate justice also comes into the picture, taking into consideration the disproportionate impact climate degeneration poses to the most affected people. The most adverse impacts from climate degeneration are faced by most developing countries, which are least to blame in the world in terms of emissions. Therefore, avoiding degeneration in the environment is a responsibility to the world and the nation, and all nations are mandated to cooperate and offer assistance. Providing all nations the means and expertise to use in the use of green solutions to the issues in the environment is the only solution to the issues in the environment [20]. By developing preventive strategies, enhancing sustainability, and enforcing green laws, countries can check pollution and ecological degradation. Conservation of the environment is also about the health, survival, and integrity of the world, and so immediate and regular effort must be invested in the effort to achieve a green and sustainable future.

1.1. Research Objectives

This research seeks to look at the principle of prevention in the protection of the environment, and the necessary role in avoiding damage to the environment from occurring in the first place. From the overall assumption that damage is less and less expensive to avoid than to repair, the principle of prevention acts to lay the foundation.

This principle underlies the right to a clean environment, usually codified in the Constitution. It naturally follows, consequently, that the responsibility to conduct preventive acts to prevent pollution, ensure the integrity of the environment, and ensure improved ecological status rests in the hands of the administration. In the exercise of this responsibility, the administration shall exercise all effective and necessary means to ensure environmental protection, and in so doing, reinforce the preventive function.

In addition to the preventive, the government also ought to repair the damage to the environment. This role lies in preventing the damage from spreading, repairing the damaged environment, and minimizing future pollution. Despite this, the damage to the environment is normally extreme, long-term, and, in some cases, irreparable [21].

Given these challenges, there has been a growing emphasis on the administration's preventive role ensuring that harm is avoided before it takes place. As a result, various measures have been implemented to curb pollution and environmental degradation at the source. This dual strategy involving both preventive and corrective means upholds the responsibility of the administration to safeguard the environment both for the current and future generations. This duty could be met by either inhibiting harmful practices or by the issue of permits to curb the damage to the environment and offset the impacts. Ultimately, all this comes in the interest of preserving a clean and healthful environment [22].

2. Literature Review

2.1. The Historical Development of the Principle of Preventing Environmental Harm

The principle to avoid causing damage to the environment dates to the early 1970s. The source of the principle, some say, first officially appeared in 1974 in Germany, though intellectual foundations lay in the

writings of Aristotle and the ancient Roman law. The principle, others say, first appeared in conjunction with the United Nations Conference on the Human Environment, the 1972 Declaration in Stockholm, the first major recognition of damage to the environment from man's activity. This declaration sought to articulate a comprehensive vision for maintaining a pollution-free environment while raising awareness of the need for environmental conservation [23].

Environmental pollution remained a challenge, and the Declaration of Stockholm emphasized the employment of collective principles to enhance public awareness regarding the protection and conservation of the environment [23]. Although it did not carry the force of law, the proclamation did contain stipulations either in harmony with the law at the time based on custom, or in anticipation of future normative advance. Notably, it enunciated the human right to a clean and uncontaminated environment [23]. The principle of prevention, also known as *Le principe de prévention*, constitutes a fundamental concept in international environmental law. It posits that environmental damage should be prevented before it occurs rather than being addressed retroactively [24]. This principle is founded on the recognition that, once environmental degradation has taken place, its consequences may be either irreversible or extremely costly to mitigate [25]. Therefore, proactive measures must be implemented to prevent actions that could cause lasting harm to ecosystems, biodiversity, and public health on a global scale [26].

Key international agreements have codified this duty. The 1992 Rio Declaration on Environment and Development and the 1972 Stockholm Declaration, to give just a few examples, all affirm the duty of states to ensure that what they are doing in their territories isn't causing damage to other countries or other territories outside the borders of the states [27]. This principle imposes both legal and ethical duties on governments, requiring them to implement measures that mitigate environmental risks before damage occurs. It has also been invoked in cases of transboundary environmental harm, where states have been held accountable for failing to prevent ecological degradation and pollution [28].

To uphold the principle, governments establish preventive measures utilizing environmental laws, impact assessments, and bans on harmful practices. The industries, in turn, are mandated to follow environmental laws, curb pollution, exhaust natural resources, and follow green practices. The citizens, at the grassroots level, are mandated to support the protection of the environment by adhering to the law, avoiding wastefulness, and making green choices. Importantly, states are not expected to wait for conclusive proof of environmental damage before taking precautionary measures. Instead, they must act based on reasonable concerns that certain activities may lead to significant harm. This approach comes into operation most acutely in the case of climate change, depletion of biodiversity, and pollution, whose delayed responses could become irreparable. The integration of the principle of prevention into law and policy assists states in fulfilling their sovereign responsibility to protect the environment and, at the same time, promote long-term sustainable development and ecological balance.

2.2. The Basis of the Obligation to Prevent Environmental Damage

The duty to prevent environmental harm is embedded in international regulations through customary practices and formal treaties [29]. Central to this obligation is the principle of no harm, which mandates states to prevent activities within their borders that could significantly impact the environment of other nations [30; 31]. International laws and rulings enshrine this principle, requiring governments to control and monitor harmful environmental activity. Environmental governance also enshrines the precautionary principle, requiring states to take preventive measures in the case of threats to the environment in the face of incomplete scientific certainty. This principle demands anticipatory protection to prevent irreparable damage. Through the enshrinement of the above principles in law and policy, states can avoid causing damage to the environment and to increase sustainability. All the above are the cornerstones of global environmental law, requiring governments to control harmful activity and to uphold the protection of the world's ecosystems and the world's nature so future generations are secured.

3. Research Methodology

To achieve the research objective, the analytical method was utilized to examine the dimensions of the research problem and propose multiple related hypotheses. The study elucidates the legal framework governing the principle of preventing environmental harm, with a specific focus on its nature, objectives concerning environmental protection, associated procedures, and the mechanisms for its activation and implementation.

3.1. Research Structure

To comprehensively examine the subject of this study, a two-part structure was adopted, a common approach in scientific research. The findings are presented in the following sections:

- First Section: Explores the concept of the principle of preventing environmental harm, the general principles governing it, and its applications.
- Second Section: Examines the implementation aspects of the principle of preventing environmental harm.

3.2. Data Collection and Analysis

The data were collected from a range of primary and secondary sources, including constitutions, declarations, articles, books, and other relevant materials. Online resources were also utilised. The analytical method was employed to achieve the research objectives.

4. Results and Discussion

4.1. Section One: Concept of the Prevention Principle of Environmental Damage

The principle of preventing environmental harm serves to safeguard the environment from pollution and mitigate activities that may have detrimental effects. This principle is founded on the premise of avoiding environmentally harmful actions through preventive measures, including restricting or prohibiting certain activities to prevent pollution. Its primary objective is to address environmental threats proactively, as once pollution or environmental damage occurs, it can be difficult or even impossible to reverse. Implementing preventive strategies before pollution arises is significantly more effective in ensuring environmental protection and sustainability than remedial actions taken post-damage. Prevention entails taking precautionary measures to mitigate harm before it occurs. This principle is realized through timely interventions designed to avert environmental damage. Some scholars define it as a proactive approach aimed at preventing and minimizing environmental harm by implementing preventive actions before any adverse effects materialize [32; 33]. Thus, the principle of preventing environmental damage comprises a series of pre-emptive measures designed to avert and mitigate environmental harm before its occurrence.

4.2. General Principles Governing the Principle of Prevention of Environmental Harm

The general principles applied in the avoidance of causing damage to the environment are the necessary guidelines to be adhered to in the protection and conservation of the environment. These principles include:

4.2.1. The Prohibition Principle that Governs the Principle of Preventing Environmental Damage

The principle of risk is fundamental in preventing environmental harm. As a core component of the broader prevention principle, it emphasizes that preventing damage before it occurs is more effective than attempting to repair it afterward. This is particularly crucial as remediation efforts can often be challenging, costly, or even impossible.

4.2.2. The Polluter Pays Principle Governing the Principle of Prevention of Environmental Harm

This principle is a significant component in the structure organizing the avoidance of environmental damage. It stipulates that any party causing damage to the environment shall pay the required expenses to clean up the pollution he/she created [34]. Under this principle, the party liable to damage the environment shall pay all the associated costs, because by what they did, the environment already stands damaged and should desist from causing additional damage. This principle in law agrees with the principle of justice, in the sense that the party liable to damage the environment shall pay the effects.

4.2.3. The Principle of Non-Discrimination Governing the Principle of Preventing Environmental Harm

This principle standardizes pollution laws, ensuring those responsible are subject to strict regulatory provisions. Its primary aim is to safeguard the environment from pollution.

4.3. Uses of the Principle of Preventing Environmental Harm

4.3.1. Application of the Principle of Prevention in Protecting the Marine Environment

The seas face pollution from harmful human activities and rising marine contamination, which negatively impact the environment. Several international agreements on marine protection incorporate the principle of prevention. For instance, Article 4(3)(a) of the Convention for the Protection of the Mediterranean Sea Against Pollution states: "In applying, according to its capabilities, the precautionary principle built upon the existence of severe threats or irrevocable damage, the lack of full scientific certainty shouldn't be taken as a reason to delay cost-effective measures to prevent environmental degradation."

4.3.2. Application of the Principle of Prevention in Protecting the Climate

The UN Framework Convention on Climate Change (1992) underscores the principle of prevention in Article 3(3), stating: "The parties shall take preventive measures to prevent climate change or diminish its causes and to lessen its adverse effects. Where there are threats of serious or irreversible damage, a lack of full scientific certainty ought not to be employed as a reason for postponing these measures, provided that the policies and measures to address climate change are cost-effective, ensuring global benefits at the least cost. To achieve this, these policies and measures must consider various social and economic contexts, be inclusive, and cover all sources, sinks, and reservoirs of greenhouse gases, as well as adaptation and the entire economic sector."

4.3.3. Application of the Principle of Prevention in Protecting Biodiversity

The precautionary principle supports biodiversity conservation by advocating action despite scientific uncertainty. It is crucial for controlling invasive species, preventing their introduction, and minimizing their impact. The Convention on Biological Diversity (CBD) underlines this strategy, noting that insufficient scientific certainty shall not be used to delay the protection of the environment [35].

4.4. Section Two: Implementing Aspects of the Prevention Principle of Environmental Damage

Humanity must prevent environmental pollution by enforcing the prevention principle through:

- (A) Preventive Measures: Preventing harm is more effective than repairing damage. Authorities should enforce laws banning activities that threaten environmental integrity.
- (B) Reporting potential Harm: Both states and individuals must notify relevant authorities of possible environmental threats and the measures taken to prevent them. This ensures effective protection and minimizes pollution risks.

5. Conclusion

Our study upholds the principle of prevention as the foundation of environmental protection because damage from harmful acts by humans leaves irreparable damage. It is necessary to avoid damage in advance by applying preventive measures to uphold the integrity of the environment. The principle has found support from the law because, through preventive measures, pollution and damage to the ecosystem are minimized.

6. Recommendations

1. Individuals must be highly aware about the principle of prevention and how it serves to safeguard the environment. It could be improved by having conferences, workshops, and seminars about how important it is in preventing pollution.
2. A strong emphasis on the avoidance of environmental pollution. The principle of prevention ensures the protection of the environment from harmful practices, some of them irreparable.
3. Researchers should be encouraged to expand studies on the prevention principle and environmental protection. Preventing harm is more effective than attempting to repair damage, which often leaves lasting effects.

7. Implications of the Research

From a comparative perspective, the principle of prevention serves to be the main foundation in the majority of countries to avoid pollution and harmful practices to the environment. Many of the constitutions, the case in point in Iraq, enshrine the principle to the clean and healthful environment. This research maintains the need to expand the principle, recording the world's consensus to the effect that the prevention from causing damage to the environment is preferable to restoration.

8. Limitations and Future Research

This research has certain limitations. It focuses specifically on the prevention principle of environmental damage, providing only an overview due to the scarcity of studies on the topic. This limitation affects the depth of analysis and restricts the range of sources used. Future research could explore this principle in Iraq and other countries, such as France and Egypt, to provide a broader comparative perspective. Additionally, further studies using diverse sources could offer a more comprehensive understanding and richer findings on the subject.

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