

Environmental Security and Sustainable Development from Multidimensional Views



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Received date: 08/12/2023

Accepted date: 10/01/2024

Publication date: 19/01/2024

Abstract :

The research paper aims to reveal the extent of the impact of environmental threats and risks on human and world security, and to clarify the limits of shared responsibility between the various actors in protecting the environment. The environmental imbalances that the world is witnessing have aroused great interest from researchers, specialized professionals, and among political decision-making circles considering the rapid growth of these problems. The threats resulting from negligence in performing the responsibilities assigned to each competent authority require it to ensure, within the limits of its responsibility, an aspect of environmental protection, which causes raising the obligations of states locally, regionally, and internationally by activating international cooperation mechanisms and developing joint defense strategies to reduce pollution and exclude waste. Toxic chemicals.

keywords: Environmental security, environmental threats, human security, environmental culture, sustainable development

ملخص:

تهدف الورقة البحثية الكشف على مدى تأثير التهديدات البيئية ومخاطرها على امن الانسان والعالم، وتوضيح حدود المسؤولية المشتركة بين مختلف الفواعل في حماية البيئة، فلقد اثارت الاختلالات البيئية التي يشهدها العالم اهتماما كبيرا من الباحثين والمهنيين المتخصصين، ولدى دوائر صناعة القرار السياسي في ظل التنامي السريع لهذه للتهديدات الناتجة عن التقصير في اداء المسؤوليات المنوطة بكل جهة مختصة يستوجب عليها ان تكفل بقدر حدود مسؤوليتها جانبا من جوانب حماية البيئة، ما يستلزم الرفع من الالتزامات الدول محليا واقليميا ودوليا عن طريق تفعيل اليات التعاون الدولي ووضع استراتيجيات الدفاع المشترك للحد من التلوث والتخلص من النفايات الكيماوية السامة.

الكلمات المفتاحية:

الامن البيئي، التهديدات البيئية، الامن الانساني، الثقافة البيئية، التنمية المستدامة.

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Introduction

Many academic studies in security studies have become closely associated with the advanced stages of transformations that have affected concepts integrated into the broader framework of security. Environmental security and the challenges it faces have been raised as a global threat and catastrophic danger that jeopardizes the entire world. This causes swift intervention and a comprehensive response to confront these risks. In recent years, many calls have emerged advocating for the protection and conservation of the environment and its resources, not only at the international level but also at the regional levels of various countries.

This is evidenced by the increasing number of conferences and international agreements addressing environmental issues, as well as the voices advocating for its protection in various media outlets. This growing interest in environmental protection, both locally and internationally, has captured the attention of many intellectuals, experts, and the public. It is not merely a result of social, cultural, or scientific evolution, but has become a fundamental requirement related to human health and the quality of life on Earth. Therefore, the question arises:

Research Problem:

In an era witnessing a tremendous increase in the severity of environmental threats and the emergence of their negative consequences on human health and the environment, these impacts have permeated all aspects of life—health, social, economic, and political—thus threatening the foundations of human security. Everyone is questioning who handles this ecological deterioration and what are the reasons that led to this imbalance? This raises the research problem:

- Who ensures the protection of environmental security from the continuous and alarming deterioration witnessed in today's world?

To address this problem, the following assumptions are proposed: Assumptions:

1. The individual is considered the primary entity responsible for embodying environmental security, being the first and last person responsible for this deterioration.
2. States and organizations are capable entities able to preserve environmental security because of their influence.

Methodological Framework:

A descriptive-analytical method was adopted to interpret the environmental situation and identify the characteristics of environmental threats. The analysis includes an examination of the responsibility assigned to the parties responsible for ensuring environmental security (individuals, organizations, and states), its boundaries, and the extent to which each party is committed to its responsibility.

1. Responsibility of Individuals for Ensuring Environmental Security:

A. Responsibility of Natural Persons

Individuals or humans are considered the primary responsible parties for preserving the environment. They are the first and last addresses, bearing the responsibility arising from their behaviors and actions. Moreover, individuals are recognized as the most vital biological factor in influencing environmental change. Since the beginning of human existence on Earth, interactions with the environment and its components have evolved. Over the years, especially with scientific and technological advancements, individuals have had a greater impact on the ecological system and its balance. Technological progress has allowed individuals to influence the environmental system more significantly, adapting their lives to the evolving and diverse needs.

Therefore, individuals play a crucial role in environmental protection and conservation. This involves refraining from deforestation, transforming lands into industrial or residential areas (Hecker, 2005 P.6), and moderating the consumption of grasslands, fertilizers, chemicals, and pesticides of various kinds. It also includes prudent use of water and diverse energy resources. Undoubtedly, individuals have a direct role in conserving natural and energy resources, such as gasoline, gas, and electricity. Rationalizing the use of these resources for essential needs, according to demand, lessens the burden on the state to seek additional imports or production.

For instance, if an individual leaves an electrical device consuming 100 watts running without necessity, and assuming 4 million people engage in the same behavior, we end up with 400 million wasted watts of electrical energy. To produce this energy, power plants need to burn more fuel, resulting in increased emissions of CO₂, a major contributor to the greenhouse effect and global warming. This, in turn, leads to significant climatic changes such as droughts, increased storms, and other phenomena causing substantial economic and health losses (Cracken, 2008, P. 736).

That was a simple example, among many others, that clearly illustrates the responsibility placed upon us as individuals in protecting and conserving the

environment and its resources. It emphasizes how our daily behaviors will determine the role we play in relation to the environment, our health, and the quality of our lives.

For an individual to have an effective and positive role towards their environment, it requires awareness and guidance with cognitive components and insights instilled in them. These new aspirations enable them to change their behavior towards their environment through new concepts known as "environmental culture." Therefore, understanding how and who will undertake the task of educating individuals is crucial.

Let's start with the family first. Undoubtedly, the family is the fundamental and primary educational nucleus in instilling the fundamentals of environmental love and conservation. The family is considered the most important educational institution in society, preparing individuals to preserve the environment and protect it from harm, fostering collaboration that has positive impacts on the environment. This includes raising awareness on how to address pollution issues by educating on waste disposal methods, responsible water consumption, and instilling the value of cleanliness and its impact on both individual and societal health.

This briefly outlines individual responsibility for environmental protection by natural persons. Now, what about moral persons or entities?

B. Responsibility of Moral Persons

The responsibility of moral persons for environmental protection lies with the institutions representing them, with a particular emphasis on industrial entities. These institutions must plan an environmental policy and consistently enforce it, requiring all their employees to ensure its implementation and success. This is aimed at achieving clean and environmentally sustainable work at all stages of operations, with a commitment to avoiding environmental pollution, degradation, or the occurrence of environmental disasters that may disrupt the ecological balance and lead to the production of catastrophic environmental phenomena.

This includes phenomena such as acid rain resulting from gases leaked from factories and various modes of transportation, which subsequently harm agricultural soil, pollute water sources, and have cascading effects. There is the depletion of natural resources (Abdelfattah et al., 2007, p. 49), leading to an imbalance in the environmental and dynamic equilibrium between production and consumption.

Therefore, it is the duty of institutions to work on finding alternative energy sources, such as utilizing solar energy instead of conventional fuels. This contributes significantly to environmental preservation and protection. Institutions should conduct tests when starting the operation of such facilities to assess pollution levels. They should implement all necessary engineering and construction modifications to minimize waste emissions and keep them within acceptable limits.

Besides industrial institutions, there are highly significant entities in spreading environmental awareness and culture: the media institutions. The responsibility for environmental protection is no longer exclusive to states or international organizations; the media also plays an extremely important role in the success of any human effort in any field (Nouri and Park, December 2008). Ensuring environmental security through the creation, dissemination, and promotion of environmental awareness aligns with this perspective.

Media, through its diverse channels, plays a crucial role in conveying information, educating people, and expanding knowledge and interest, especially with the evolution of communication methods and the rapid transfer of information. Media that positively contributes to supporting environmental protection efforts is constructive and purposeful. Such media should be managed by specialists in various fields to ensure clarity of its message and the ability to convey information and influence the audience.

Public trust in environmental media varies from one country to another. In the United States, for instance, a study showed that most citizens consider media in its various forms as the most significant source of environmental information. In another study in England, it was found that 52% of people trust television programs more, while 33% trust newspapers and magazines (Abu Rass, 2001, p.3).

As for developing countries, the situation is different, especially in those where the government directly controls the media. In such cases, only information approved by official authorities is disseminated, even if it pertains to environmental and human security.

Among the methods employed by the media to ensure environmental security and raise public awareness are the implementation of specialized lectures, seminars, and scientific discussions to promote awareness of environmental issues. Additionally, there is encouragement for organizing exhibitions and the formation of environmental clubs and associations.

2- Responsibility of Countries for Ensuring Environmental Security

A. Locally

No country is without an entity, administration, or ministry responsible for environmental care and the implementation of an environmental program. This is achieved through the development of programs, regulations, and systems, involving mechanisms such as (Razik, 2007, p. 56):

- Formulating laws and legislation to limit emissions associated with manufacturing and production and preserving available natural resources.

- Adopting mechanisms and policies to protect the environment, imposing taxes, and fines on those causing environmental harm (Abdelfattah et al., 2007, p. 14).
- Developing plans for recycling certain waste and utilizing it, also known as harnessing, wasted energy. Successful countries can benefit from all produced waste, such as Brazil and China in producing gas from waste.

Moreover, it is the duty of countries to consider the equitable distribution of populations and urbanization in a manner that preserves them from disasters and maintains environmental security. This involves developing sound sewage plans, eliminating haphazard manufacturing, and drawing up a specific policy for the distribution of industrial activities in areas far from populated regions. These activities should be monitored to ensure compliance with environmental laws and the preservation of natural resources, as well as the proper treatment of industrial waste.

On the other hand, the role and responsibility of the state in environmental protection are not limited to legislation and taxes imposed on industrial entities (Al-Hosary, 2005, p. 28). The state also plays a crucial role in shaping the awareness and educating its people with a positive environmental culture. This is achieved through directing and supporting the media to serve this goal, given its significant and widespread impact. Additionally, the state works on the formation and education related to the environment, such as integrating lectures, lessons, and specialized environmental programs in schools, colleges, and universities. It establishes research laboratories led by experts specialized in the field, focusing on researching environmental protection issues and finding solutions to its problems in its social, economic, political, and security aspects.

Experts and the level of awareness of institutions and individuals about environmental issues help strengthen the state in achieving environmental security. When discussing environmental education and training, it is essential to note that the first historical reference to environmental education at the international level is the United Nations Conference on the Human Environment held in Stockholm in 1972. It emphasized the need for international cooperation to develop environmental learning. This was followed by the Belgrade Charter in 1975, which was the International Conference on Environmental Education in 1977, and then the International Strategy for Action in the Field of Environmental Education in 1987 (Qader, 2009, p. 30)

B. Internationally and Regionally

On the international level, efforts by countries to conserve the environment began before and during World War II when the League of Nations, in collaboration with some governments, entered into an international agreement to limit maritime pollution

caused by ships. In the early 1940s and 1950s, several agreements were concluded to conserve aquatic and terrestrial ecosystems. However, these agreements did not have much effectiveness at that time due to the lack of ratification by the countries. An example of this is the International Convention for the Regulation of Whaling in 1946 (Al-Hosary, 2005, p. 16).

International efforts in environmental conservation and protection are evident through bilateral and collective agreements, as well as cooperation between countries. This collaboration may involve providing financial, technological, or scientific assistance, in addition to implementing joint projects in the field. Notable bilateral and collective agreements outside the framework of organizations include:

- The International Agreement between Argentina and Uruguay in 1961 regarding the protection of the Uruguay River.
- The International Agreement between Switzerland and France in 1992 to protect Lake Geneva from pollution.
- The European Agreement in 1975 to protect freshwater and prevent the pollution of international rivers located in Europe.
- The International Agreement between India and Pakistan in 1990 to protect the Indus River from pollution and preserve aquatic ecosystems.

Certainly, there are many international agreements related to this matter, with about 50 international agreements and 320 agreements of a regional nature. On a practical level, numerous international programs and projects have been established for this purpose. For example:

- The Arctic Monitoring and Assessment Program (AMAP): Founded in 1991 by eight countries near the Arctic region (the United States, Canada, Sweden, Denmark, Norway, Finland, Iceland, and Russia). The program focuses on monitoring and assessing the levels and impacts of certain human pollutants on the environment in the Arctic region.
- The White Paper on European Chemicals Development: This report, issued by the European Union, serves as legislation outlining strategies for chemical policy and its implementation on the European industry and countries that supply chemicals and fully manufactured goods to Europe.
- International Council of Chemical Associations: This council serves as a board for trade organizations representing chemical manufacturers at the national or regional levels. It addresses important international issues related to chemical manufacturing, as well as matters concerning health and environmental safety, by encouraging companies to take preventive measures. It began operating in

Canada in 1985 and includes 46 countries representing approximately 85% of the international chemical production.

- Besides the Arab Union for protecting the Environment: Established in the Council of Arab Economic Unity in 1981, it includes sufficient projects aimed at environmental protection.

From this, it should be acknowledged that international interest in environmental security as a subject of international relations is not limited to summits and meetings. It has evolved to form a genuine administration for environmental issues, especially since it has become a matter enjoying popular support, particularly from civil society institutions, including non-governmental international organizations concerned with environmental issues.

3. Responsibility of International Organizations for Environmental Protection

A. Non-Governmental International Organizations

The efforts of non-governmental international organizations to strengthen environmental security and disseminate environmental awareness represent crucial initiatives in this domain. Particularly noteworthy is their voluntary and non-profit nature (Breg, 2011, p. 55). Since the Stockholm Conference in 1972, these international non-governmental organizations have played an indispensable role in identifying environmental risks, assessing their impacts, and implementing measures for their mitigation (Mousa, 2003, p. 51). They have also contributed to monitoring public and political interest in environmental and developmental issues by publishing national, regional, and international reports on the state of the environment.

In its report "Our Common Future," the Portland Committee urged governments to recognize the rights of non-governmental organizations and to expand their related rights. This includes their right to knowledge and access to information regarding the environment and natural resources, as well as the right to be consulted on environmental issues. The committee estimated their number at 2500 non-governmental organizations worldwide. In the past, the developing world had only three such organizations. Today, there are over 2000 organizations, showing the growing concern and interest in tandem with a positive shift in the environment's perception and its connection to development and security.

Among the prominent non-governmental organizations with significant media recognition are Greenpeace, Friends of the Earth, and the Worldwide Fund for Nature, which boasts one million members from the United States alone, besides 4.7 million members distributed across various countries.

The recent general trend among non-governmental organizations is moving towards establishing international standards to prevent countries from increasingly adopting antagonistic strategies towards international institutions and advocating for national withdrawal. Only a few non-governmental organizations now radically demand the removal of certain bodies or their countries' withdrawal from them, such as the withdrawal of member countries from the World Trade Organization. Among the non-governmental organizations embracing this new approach to environmental protection, there is an emergence of political formations advocating for environmental defense, such as Green Parties, which work to raise environmental awareness and recruit for its conservation.

Additionally, labor unions have become political players in environmental protection, providing significant support as they create a link with the world of labor and institutions. In this regard, the March 1992 treaty of the International Confederation of Free Trade Unions for Development and Environmental Goals marks a significant new phase for these labor movements (Al-Ashaw, 2010, p. 98).

B. Governmental International Organizations

When discussing specialized international organizations, these entities essentially consist of bodies formed through the union of states' wills, working towards international cooperation in a specific field within the economic and social domains (Pedrazzini, 2001, P. 14). These organizations are responsible for organizing the provision of international services that touch upon the common interests of member states. They are linked to the United Nations through the Economic and Social Council, which regulates legal relations with them through agreements on access, connection, and coordination. Some of these organizations include:

C. Food and Agriculture Organization (FAO)

Established in 1945 following an international conference on agriculture and food in the world held in Virginia, USA, the FAO has the following objectives:

1. **Biodiversity Conservation:** It aims to investigate agricultural conditions, market stability for agricultural products, study water and soil resources, and disseminate technical information on certain animal diseases. It also focuses on forests and promotes information dissemination on healthy nutrition.
2. **Combating Desertification:** The FAO develops strategies to combat and gradually eliminate desertification, working on increasing green spaces, promoting afforestation, and agriculture.

3. Water: Recognizing the global and local challenges of obtaining drinkable water, FAO actively participated in the 1997 World Water Forum, addressing water-related issues.

D. Organization for Economic Cooperation and Development (OECD)

This organization supports environmental expertise in bodies that do not consider the environment as their central goal. It works to increase financial support to maintain strong environmental activities, such as the United Nations Environment Programme.

Due to the continuous growth of environmental awareness in social, economic, legal, and political circles and the emergence of environmental organizations in the 1960s, UNESCO, in alignment with the rise of environmental advocates, launched its program titled "Man and the Natural Habitat." In line with this, the United Nations General Assembly decided in 1966 to organize a world conference titled "Man and His Environment: Foundations for a Better Life," leading to the Stockholm Conference in 1972. The conference marked the first global declaration on the environment, consisting of 27 principles acknowledged by 123 countries at that time.

Thus, the birth of international environmental law was declared, focusing not only on the natural environment and its elements but also encompassing the human environment, such as health or social conditions. International environmental law constitutes a distinct jurisdiction within public international law, in addition to international humanitarian law, which deals with wars and armed conflicts. Its subjects and rules entail protecting the environment from aggression, whether by preventing nuclear tests in the seabed and oceans or in outer space, or by prohibiting attacks on it under the pretext of revenge against the enemy.

These principles of international law were issued by the United Nations Committee of Experts to minimize environmental damage and achieve various environmental securities that extend beyond international borders. From a practical standpoint, one of the recommendations of the Stockholm Conference on the Environment was the necessity to establish an international body dedicated to environmental affairs (French, 2011, P.3). The United Nations General Assembly accepted this recommendation and created the "United Nations Environment Programme." Several other subcommittees were also established to address the same issue within the economic and social framework. On the other hand, the United Nations has worked diligently to strengthen international cooperation in the field of the environment and sustainable development through various conferences, notably the Earth Summit in Rio de Janeiro in 1992, the Convention on Climate Change in the same year, and the Kyoto Protocol on Climate Change in 1998 (Morgera, 2004, P. 214).

Conclusion & Findings:

It has become evident that issues of development and ensuring environmental security are far more complex than previously believed. The responsibility for ensuring environmental security and conservation is a shared duty for individuals, institutions, countries, and both regional and international organizations, whether governmental or non-governmental. It is no longer exclusive to certain entities; rather, it is a duty that necessitates the collective efforts of humanity with its diverse affiliations, levels, and specializations. Urgent and comprehensive global solutions are required to contribute to protecting the environment and achieving its security, as well as human security.

Among the proposed means and methods for all parties responsible for environmental protection, the activation of the following mechanisms is suggested:

- Rationalizing human consumption of essential natural resources, such as water, air, and soil, and adopting mechanisms to ensure the protection of these elements from damage.
- Working on increasing afforestation, preserving forests and agricultural lands, and establishing natural reserves.
- Imposing control measures to ensure the protection of water bodies, including seas, rivers, and oceans, from all forms of pollution, especially concerning the storage of toxic waste, oil spills, various fuels, and chemicals.
- Developing solutions for treating and disposing of sewage water that does not harm the soil, plants, and humans.
- Intensifying informative awareness campaigns focusing on environmental education and working on raising generations with environmental awareness.

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