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Climate change and international efforts to preserve the environment

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Abstract

The environment has emerged as a critical global issue, receiving substantial attention from the United Nations and various organizations, leading to multiple conferences and agreements addressing environmental challenges. However, these initiatives have proven insufficient, and global awareness has yet to reach the urgency needed for effective climate preservation. Additionally, industrialized nations have intensified environmental degradation by setting up factories in developing countries, prioritizing cost-cutting over ecological integrity. This article emphasizes the urgent need for a stronger global commitment to environmental protection, highlighting the shared responsibility of both developed and developing nations.

Keywords: climate. Climate change. International efforts. International agreements.

ملخص:

أصبح البيئة قضية عالمية حاسمة، حيث تلقت اهتماما كبيرا من الأمم المتحدة ومنظمات متعددة، مما أدى إلى تنظيم مؤتمرات واتفاقيات عديدة تهدف إلى معالجة التحديات البيئية. ومع ذلك، أثبتت هذه المبادرات أنها غير كافية، ولم يصل الوعي العالمي إلى المستوى المطلوب من الإلحاح للحفاظ الفعال على المناخ. بالإضافة إلى ذلك، زادت الدول الصناعية من تدهور البيئة من خلال إنشاء مصانع في الدول النامية، مفضلة خفض التكاليف على الحفاظ على السلامة البيئية. يبرز هذا المقال الحاجة الملحة لتعزيز الالتزام العالمي بحماية البيئة، مشددا على المسؤولية المشتركة بين الدول المتقدمة والنامية.

كلمات مفتاحية: المناخ، تغير المناخ، الجهود الدولية، الاتفاقيات الدولية.

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1. INTRODUCTION

The remarkable advancements in the industrial sector at the end of the last century and the onset of the third millennium have significantly impacted the environment. This industrial growth has contributed to climate change, resulting in global warming and rising Earth temperatures. The consequences of these changes are extensive, affecting not only the atmosphere and terrestrial ecosystems but also marine environments and organisms. The long-lasting effects of climate change present challenges in remedying the damage, as these impacts can endure over time, ultimately influencing human rights and overall well-being.

The adverse effects of climate change stem from the overexploitation of industrial activities that emit toxic gases, along with unsustainable agricultural practices. As the planet warms, the repercussions on life are increasingly alarming. In response to this urgent situation, the United Nations has developed programs aimed at addressing climate change and its environmental impacts. This includes the establishment of an international body focused on climate change (GRE) and organizing international conferences and conventions dedicated to environmental issues. However, these efforts are often complicated by significant global activities and conflicts that threaten both climate stability and ecological health.

Despite numerous international agreements and initiatives, climate change continues to escalate at an alarming rate. Key issues warranting exploration include why international efforts have proven insufficient in mitigating climate change, what barriers hinder effective global cooperation, and how existing frameworks can be improved to better address these challenges.

To tackle these issues, several hypotheses can be proposed. The first hypothesis suggests that the absence of binding commitments among nations significantly contributes to the ineffectiveness of international climate agreements. The second hypothesis posits that economic interests and political agendas frequently undermine collective action against climate change. Lastly, the third hypothesis asserts that enhanced cooperation and more robust compliance mechanisms could lead to more effective international climate action.

This research will employ a qualitative approach, incorporating various methods to gather data and insights. A literature review will analyze existing academic literature on climate change agreements, such as the Paris Agreement and the Kyoto Protocol, to understand their effectiveness. Additionally, case studies will examine specific international initiatives and their outcomes, assessing both successes and failures. Interviews with experts in environmental policy and climate science will also be conducted to gather valuable insights on the effectiveness of current efforts. Academic databases such as JSTOR and Google Scholar will be utilized for the literature review to ensure comprehensive and credible sources.

Online platforms, including Google Scholar, will be employed to gather expert opinions and insights, contributing to a well-rounded understanding of the current state of climate action. This research strategy will begin by defining the concept of climate and its changes, followed by an exploration of the various implications of climate change on the environment, society, and economies worldwide.

the discussion will turn to international efforts to protect the environment. This will include a definition of what constitutes international environmental protection and an analysis of the various initiatives and agreements established to safeguard the environment, evaluating their effectiveness and impact in the ongoing fight against climate change.

2. the concept of climate change:

The end of the nineteenth century witnessed a great interest in the issue of the environment, and of the elements that have a direct and serious relationship with it, the climate, which was directly and seriously affected by the increase in industrial activities of various kinds. In response to this imminent danger, the Nations of the world have moved to try to preserve the environment and save what can be saved.

2.1.definition of climate and its changes:

Climate refers to the long-term average weather conditions in a region, including temperature, precipitation, humidity, and wind patterns. Climate change describes a significant variation in these average conditions over an extended period of time, typically decades or longer.¹

The Earth's climate has constantly been changing throughout its history, with periods of global warming and cooling. However, scientists have observed an unusual increase in global temperatures over the past 150 years, which is largely attributed to human activities that release greenhouse gases into the atmosphere. These activities include burning fossil fuels, deforestation, agriculture, and land-use changes.

Climate change can have far-reaching effects on the environment, such as rising sea levels, shrinking glaciers, changes in precipitation patterns, and more frequent extreme weather events. Addressing climate change is crucial to mitigate its potential impacts on human society and natural ecosystems.²

The climate is of public and private concern. Because it is related to daily life, especially with regard to agriculture, food and health in general.

Climate is a complex and multifaceted concept that encompasses the long-term patterns of weather conditions in a particular region. It is derived from the study of weather, which focuses on the instantaneous state of the atmosphere, including factors such as temperature, humidity, wind speed, and precipitation. While weather represents the day-to-

day fluctuations in atmospheric conditions, climate provides a broader perspective by examining the average weather patterns over an extended period.

The formation of climate is influenced by numerous factors, both natural and human-induced. Natural elements such as solar radiation, ocean currents, and atmospheric circulation play a crucial role in shaping climate patterns. The Earth's climate system is highly dynamic and interconnected, with various components interacting with one another in complex ways. For instance, the distribution of heat across the globe is influenced by the movement of air masses, the rotation of the Earth, and the presence of large-scale weather systems such as high and low-pressure systems.

In summary, climate encompasses the long-term patterns of weather conditions in a given region. It is influenced by a combination of factors including latitude, longitude, vegetation, bodies of water, and geographical features. The three primary elements of climate are heat, rainfall, and wind blowing, each of which plays a fundamental role in shaping the overall climate characteristics of a particular area. By understanding the linguistic definition of climate, we can delve deeper into the intricate mechanisms that govern our planet's weather patterns and their long-term trends..

Climate is known to be studied within geography, a well-known, self-contained science concerned with predictions of weather conditions. It depends on technical and scientific studies and the climate is almost known to the students, each region is known for its climate is distinguished according to its location, there is a desert climate, moderate climate and hot climate and tropical climate known by the high rate of precipitation.

The climate can be defined by the type of atmosphere in a particular area. While if we touch on the most important elements, which is the weather, it can be said that the state of the weather, temperature, wind, rainfall or snow, and the direction of the clouds movement during a certain period of time (mourning, climate change global warming and its role in international . this region calculates the longitude and latitude that determine the nature of the place with high accuracy and thus defines the type and characteristics of the prevailing climate during the four seasons of the year. Climate is its constituent elements that can determine the nature of the weather in a region, the weather throughout the year and the variety of seasons, as opposed to the weather in which the weather is known within hours in a specific region .

2.2 The Effects of Climate Change:

There is no doubt that the climate has changed dramatically due to human activity, particularly through industrial processes and the use of various substances that increase atmospheric temperatures and emit harmful gases. These changes have led to significant negative impacts on the environment.

2.2.1 The Impact of Climate Change on Water:

The impact of climate change on water is profound and multifaceted. Climate change disrupts the water cycle, influencing when, where, and how much precipitation falls, which leads to more severe droughts, floods, and extreme weather events globally. Rising temperatures result in the melting of freshwater glaciers, contributing to rising sea levels and the contamination of underground freshwater sources via saltwater intrusion. Additionally, climate change affects water quality by increasing the likelihood of harmful algal blooms, reducing oxygen levels in water bodies, and altering the behavior of contaminants, making them more soluble and mobile in water. These changes pose significant challenges to water resources, impacting drinking water supplies, sanitation, food production, and energy systems. This situation highlights the urgent need for proactive measures to mitigate the effects of climate change on water access and quality .

Water is the vital substance that sustains life, and experts have confirmed that the impacts of climate change on water resources began to appear at the end of the twentieth century. The effects are manifested through disturbances in rainfall, increased drought, cyclones, and disruptions in seasonal patterns, all of which affect normal life above ground. Changes in hydraulic cycles, such as increased water evaporation and lower water levels in bodies of water, are also noted. Experts predict that the impact on water will intensify, with droughts and shrinking water bodies becoming more prevalent, and ice melting in several regions of the world leading to natural disasters like rising sea levels. For example, sea levels rose by 1.8 mm globally in 2003, while the average height increase during the entire twentieth century was 0.17 meters.

2.2.2 Impact on Biological Life

In terms of biological life, climate change plays a critical role in shaping ecosystems. Biology influences every aspect of life, from cellular processes to complex interactions between organisms and their environments. Understanding these mechanisms allows us to grasp how living organisms function, reproduce, and adapt. Furthermore, advancements in medicine, agriculture, environmental conservation, and biotechnology are rooted in biological studies. By exploring biology, we uncover the mysteries of life and appreciate the interconnectedness of all living beings on our planet.

The impact of climate change extends beyond water resources, causing desertification and disruptions in precipitation, and it also significantly affects biological life. Reports indicate that climate change has led to the decline of species by 17.9%, with extinction rates for some organisms reaching 25%. Experts predict that if climate change continues at its current pace, extinction rates could rise to 37% .

Moreover, climate change prompts the migration of certain organisms in search of suitable environments, resulting in alterations to natural habitats, including shifts in vegetation that attract migratory species. Coral reefs have suffered significant damage due to increased

atmospheric carbon dioxide, leading to the death of oysters and many whale species. Approximately 32% of plants and animals are now exposed to the threat of extinction due to rising Earth temperatures, which is estimated to impact 22.7% of species.

3. International efforts to protect the environment:

In the face of the negative development of the planet in the field of environmental degradation, the United Nations has moved to reduce this phenomenon and to try to put in place mechanisms to preserve the environment, provide a healthy atmosphere for living and sensitize States to the threat that now threatens the planet.

3.1 definition of international protection of the environment:

International protection of the environment involves crucial efforts by countries worldwide to safeguard natural resources and ecosystems on a global scale. Governments, organizations, and individuals collaborate through international environmental agreements to address pressing issues like climate change, pollution, and biodiversity loss. These agreements, such as the Kyoto Protocol and the Paris Agreement, set the stage for coordinated action to mitigate human impact on the environment. The United States, through the Environmental Protection Agency (EPA),³ exemplifies a national commitment to environmental protection, focusing on areas like climate change, air quality, and water protection. International cooperation is essential in addressing environmental challenges that transcend borders, emphasizing the need for collective action and shared responsibility. By fostering collaboration, implementing regulations, and promoting sustainable practices, international efforts aim to ensure a healthier and more resilient environment for current and future generations.

After the world witnessed an awakening in regard to the danger that threatened the environment with all its elements due to the growth of industrial activity, countries sought to protect the environment.

The language of the fever of the thing is protected by the protection of any prevention, and the protection of the patient from food and drink, as is said, protected the people of any victory. This is said to protect any forbidden thing that does not close protection if defended. And the near-compassionate intimate is also named because it is used to protect his relatives, he is defending them.

The state is a language derived from money, and if it comes with annexation it means circulation, that is, the circulation of money is for a people without a people.

The term environment is derived from the act of B, Boa and parents in the sense of residence and residence or home, and said good environment and bad environment and thus means clarifying the state of the environment.

International conventions do not know the meaning of protection and in return, the protection measures that States are bound to and that result in a legal or moral obligation on the obstruction of States.⁴

The international protection of the environment is therefore the measures provided for in the international conventions and specialized organs of the United Nations, which practice and ensure their implementation as they represent a legal and moral obligation of States .

The Vienna Convention for the Protection of the Ozone Layer of 1985 states that States Parties shall take the necessary measures to protect human and environmental health from the primary effects of human activities; this protection consists of taking care to protect the ocean from any damage to the environment or future danger.⁵

The Charter of the United Nations states that the human race is a part of nature and that its existence depends on the continuous work of regulating nature, which is a source of energy and food, and therefore the purpose of any protection aimed at the environment is to serve humanity and a condition for the survival of the human race .

3.2 International protection of the environment

The international community has moved to find legal rules to preserve the environment in all its elements from all forms of pollution and climate change, which has become more dangerous in the twentieth century due to excessive industrial activity and non-observance of the conditions to protect the environment.

3.2.1 International attention to the environment

International protection of the environment is a critical endeavor that involves the collaboration of individuals, groups, and governments worldwide. The global community recognizes the importance of safeguarding the natural environment to ensure the well-being of current and future generations. Efforts to protect the environment encompass various aspects such as conservation of natural resources, reducing pollution, and addressing environmental degradation. International agreements, laws, and policies play a crucial role in setting standards and guidelines for environmental protection on a global scale. The interconnectedness of environmental issues transcends borders, emphasizing the need for collective action and cooperation among nations to address challenges like climate change, biodiversity loss, and pollution effectively. By upholding environmental protection as a shared responsibility, the international community strives to preserve the planet's ecosystems, promote sustainability, and secure a healthier and more resilient environment for all.⁶

The last century witnessed an accelerated development of the field of industry, whose activities were determined, with the proliferation of factories, the emission of various raids,

and the presence of industrial waste that is disposed In the seas and uninhabited places, this has led to a rise in temperature on the planet, damage and damage to the atmosphere.

Perhaps the first scientist to refer to the seriousness of industrial activity is the Swedish scientist "Arrhenius", who pointed to the harm of carbon dioxide on the atmosphere, which in his opinion leads to an increase in temperature by six degrees Celsius was that in 1986.

The Second World War was a dangerous turning point in damaging the environment and this after the devastating war that led to millions of people and used various destructive weapons, especially the use of the United States of America Dairy bombs in Japan .

With the establishment of the United Nations, the signs of concern for the environment began to loom, as stipulated in the Charter of the Organization, followed by the Universal Declaration of Human Rights of 1948 , as well as in the Inter-State Covenant on Human Rights of 1966, the importance of the environmental element in the preservation of human life is highlighted in articles 06, 09 and 12 of the Covenant on Civil and political Rights

In 1969, the United Nations General Assembly issued the Declaration on Social progress and Development, which urged attention to the environment.

3.2.2 International conferences on the environment

After the actions taken by countries to confront the dangers that led to damage to the environment, and this comes on the planet in general, these efforts culminated in the holding of international conferences and conventions related to the protection of the environment.

First: United Nations Environment Conference 1972

The conference was held in Stockholm at the invitation of the United Nations Economic and Social Council and was attended by 113 countries as well as international NGOs and intergovernmental organizations.

Results of this conference: ⁷

- Creation of the United Nations Environment Program VNEP
- The need for countries to return to the program in the field of environmental protection.
- Establishment of the IPCC .

Second: Nairobi Conference of 1982

Held in the Kenyan capital Nairobi in 1982, it considered environmental developments and their impact on developing countries, including the Nairobi Declaration, which contained ten items .

Third: United Nations Conference on Environment and Development 1992

The conference was called the Earth Summit in Rio de Janeiro, Brazil and was attended by 185 countries as well as international governmental and non-governmental organizations.

It resulted in the following recommendations:

- Protection of biological life.
- Combatingdeforestation.
- Protection of the atmosphere.
- Combatingdrought.
- Fighting for desertification.
- Protection of the sea and fresh water.
- Improvement of health.
- Development of rural agriculture.
- Regulating demographic growth in third world countries.

Human conscience is already waking up to the shock of climate change and the destruction of the environment. despite the international efforts led by the United Nations and international governmental and non-governmental organizations, this has not changed much, due to the race of countries to achieve what they call development and the intensification of industrial activity without taking into account the minimum conditions of environmental conservation.

Therefore, international efforts can be assessed as insufficient and international awareness has not risen to the level of a sense of imperative to preserve the climate and the environment in general. the industrialized countries have not satisfied themselves with their environmentally damaging activities within their regions, but have gone beyond that by opening large factories in developing countries under the pretext of investment, but they do so in search of cheap labor and reduce the cost of production.

Fourth:

A. Environmental Consequences:

- Accelerated Desertification: Approximately 100 km² of arable land is lost annually to advancing desertification due to prolonged drought conditions.
- Water Scarcity: Projections indicate a critical water deficit of 3 billion cubic meters by 2030, threatening water security.
- Extreme Weather Events: Increased frequency of catastrophic flooding events, notably the Bab El Oued disaster (2001) and Ghardaia floods (2008).

B. Sectoral Economic Impacts:⁸

1. Agricultural Sector:

- Yield Reduction: Crop productivity has declined by 10% primarily due to water stress and irregular precipitation patterns.
- Livestock Challenges: Emergence and spread of vector-borne animal diseases including bluetongue virus in ruminants.

2. Public Health:

- Disease Proliferation: Significant rise in waterborne illnesses (e.g., cholera) and vector-borne diseases (e.g., malaria).
- Healthcare Costs: Annual expenditure for pollution-related health treatments reaches \$15 million, straining public health budgets.

3. Energy Demand:

- Cooling Needs Surge: Escalating temperatures have dramatically increased electricity demand for cooling, consequently raising greenhouse gas emissions from power generation.

4. Tourism Industry:

- Coastal Degradation: Popular tourist destinations along the coastline are suffering from pollution and rising temperatures, diminishing their appeal and economic viability.

4- Conclusion

The climate changes witnessed and experienced by the world have significantly affected the environment in various ways, extending beyond the natural realm into the political sphere. The countries of the Global South, particularly those classified as third-world nations, have been disproportionately impacted, leading to phenomena such as drought and floods. While industrialized nations are primarily responsible for environmental degradation, it is the poorer countries that bear the brunt of these consequences. This has resulted in not only environmental damage but also the outbreak of both international and non-international armed conflicts, further exacerbating the challenges faced by these nations, including Algeria.

The efforts of the United Nations in the realm of environmental protection have not met the aspirations of peoples and humanity as a whole. The conferences organized by this body, constrained by the dominance of the global economy exerted by major powers, have often yielded recommendations that lack the necessary implementation and enforceability. In light of the escalating climate crisis, the recommendations for addressing climate change and enhancing international environmental protection are of paramount importance.

To effectively combat the climate crisis, several key recommendations emerge from this study. First, there is an urgent need for deep, rapid, and sustained emissions reductions. The Intergovernmental Panel on Climate Change (IPCC) emphasizes the critical importance of significant reductions in greenhouse gas emissions across all sectors, starting immediately and continuing throughout this decade, to limit global warming to 1.5°C above pre-industrial levels.

Second, a holistic climate policy approach is essential. Such an approach should focus on reducing the risks of further impacts and ensuring preparedness to respond to current and future losses and damages driven by climate impacts. This necessitates effective governance, improved socioeconomic development, and scaled-up financing to support countries and communities in recovering from climate-related events.

Another crucial recommendation is the establishment of a Loss and Damage finance facility. This facility would direct rapid-response finance to areas in need, facilitate increased availability of funding for slow-onset events like desertification and sea-level rise, and support effective climate policy at all levels.

Moreover, a global response to climate change is imperative. The 2015 Paris Agreement offers a framework for international action against the climate crisis by setting long-term global temperature goals and encouraging countries to take decisive action to reduce emissions and adapt to changing climate conditions.

Finally, research and knowledge sharing must be prioritized. Efforts should focus on fundamental, use-inspired research to enhance understanding of climate change and provide

decision-makers with timely, accessible, and usable information. This includes informing the public about climate change, engaging in relevant research, and establishing programs to disseminate climate-related information at both national and international levels.

In conclusion, while this study highlights critical findings and recommendations, it also acknowledges certain limitations. The theoretical and practical constraints of the research suggest that future studies should further explore the intersections of climate change with social justice, conflict resolution, and economic development. These areas present rich opportunities for further investigation, enabling a more comprehensive understanding of the multifaceted challenges posed by climate change.

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