Journal of contemporary economic research
Vol 08 , N°: 1 (2025), p 349-367
ISSN 2623-2602/ EISSN: 2716-8891

Effectiveness of environmental policy instruments in environmental protection and their role in achieving sustainable development « Algeria case »

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Received: 2/6/2025 **Accepted**: 3/29/2025 **Published**: 4/29/2025

Abstract:
the circumstances endanger it with an eye to reconstruction rather than destroying the elements of life in them. This goal will not be achieved unless the countries that suffer from environmental problems work to pursue the organizational tools that must reduce this by employing economic tools and decreasing dependence on basic environment policy instruments to protect the environment in light of the trend towards sustainable development. given their effectiveness and efficiency compared to other tools, the kind that they involve features that exceed their faults and provide a vow in cost and administrative effort. The attainment of the desired goal also requires avoiding some improper practices that are used at present, in addition to its absorption of a vital part of the state's revenues, which could be better allocated to other critical areas, its detrimental impacts on the environment, such as government spending curricula, and support policies for some natural resources as energy, water.

Keywords: Environment; Environmental components; Environmental policies; environment protection; sustainable development.

JEL Classification Codes: k 32 , Q01 , Q58.

1. INTRODUCTION

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Experts, specialists, and those concerned agree that ecology currently occupies an important space between basic, applied, and humanitarian sciences. perhaps one of the most important reasons for modern man to look at Environmental Sciences with such seriousness is the various interactions between development activities and the environment, which have crossed local boundaries to regional and global boundaries, humans have seen these developments as global problems for which countries, only via collaboration can we formulate suitable frameworks and solutions. The United Nations conference on the human environment in Stockholm in 1972 expanded the definition of "environment" to encompass more than merely natural factors. (water, air, soil, minerals, energy sources, plants, and animals), but made it an asset of material and social resources available at some time and somewhere to satisfy human needs and aspirations. Ecology has emerged as a critical necessity to investigate the circumstances of the natural environment and the communities of flora and fauna that inhabit it, and the living organisms that exist in this environment, ecology is looking at individuals, groups, communities, ecosystems, and even the living sphere, and therefore it is considered one of the important branches of biology, where it is looking at living organisms and their environmental habitats.

Several global development experiences have demonstrated that the environmental factor plays a crucial role in formulating development strategies, which has yielded catastrophic outcomes that will significantly imperil the future of future generations and is exclusively focused on the political, economic, and social dimensions. The "gray" environmental issues have become increasingly urgent due to the ongoing deterioration of major cities worldwide. However, the contemporary development patterns of these cities make any reform efforts more challenging. The environmental policy aims to balance. The advantages derived from economic activities and the detriments inflicted by pollution, alongside the aim to prevent environmental issues and mitigate associated risks, while striving to identify and implement essential and effective measures to safeguard human health, life, and dignity from all forms of pollution.

That is why we will introduce the importance of environmental policy within development policy, through the following problem: **To what extent do environmental policy tools contribute to environmental protection and to achieving Sustainable Development Targets?**

2. Theoretical framework for the idea of Environmental Protection economics:

The environment is a crucial concern that has engaged humanity since its emergence on Earth, as it constitutes the habitat in which we reside and from which we derive our sustenance, survival, and perpetuation. The environment and the paucity of its resources have significantly influenced the decision-making process at the international level, particularly with minerals. (Steer a., 1992, page 19)

2.1 The Concept of Ecology:

2.1.1 Definition of Environment:

The Old French words "environ" and "environer," which refer to concepts like "circuit," "surround," "enclose," and "circumstances," are the etymological roots of the noun "environment." According to the Oxford English Dictionary, the word "environment," which implies to enclose, encircle, or surround, was first used in 1603. The surroundings or circumstances in which living things, including humans, animals, and plants, reside are referred to as the environment. قال تعالى: ﴿وَكَذَلِكَ مَكَّنَّا لِيُوسُفَ فِي الأَرْضِ يَتَبَوَّأُ مِنْهَا حَيْثُ يَشَاءُ﴾ (سورة يوسف، الآية 56)

2.1.2 The Concept of Ecology in English:

The entirety of environmental factors that impact an organism's life development are collectively referred to as the environment. (Mazid, 2009, page 34)

As for the terminological meaning of the environment, it is not much different from the linguistic meaning, since all definitions indicate" that a person lives, obtains the components of his life from it, and practices his relationships with other people within the framework of his environment." (Ratib, 2003, p.18).

Therefore, the location and its natural state might be referred to as the environment. Since the word ecology is derived from the Greek word "Oikas," which means house or home, and logos, which means science, the Arabic concept closely resembles the definition of ecology, one of the branches of biology. Ecology is the study of the relationships between living things and their environment. Environmental Sciences "Environmental sciences" evolved as a result of the growing demands on humans, which have given rise to environmental problems and the need for a contemporary, integrated perspective of people and the environment. (Ghraibia and Al-farhan, 2000, pp. 17-18)

The environment is: "that space in which humans practice various life activities and includes within this framework all living organisms, animals and plants, with which humans coexist and together form a connected chain among themselves." Earth's biosphere, hydrosphere, gas or air atmosphere, and geosphere are the four interconnected and interacting systems that comprise the environment. The elements that comprise the environment can be divided into two major categories. (Al-Qasmi and Al-baani, 1999, pp. 11-13):

-Physical natural elements include water, air, earth, and other natural resources.

-the process of creating man-made objects after altering natural materials.

Consequently, we deduce that, according to Contemporary Thought, the environment signifies the sphere in which humanity exists and engages, serving as a reservoir of interrelated resources that both impact and are influenced by human activity. From this perspective, the environment encompasses all biotic and abiotic components, including all biological organisms—both visible and invisible—found in diverse environmental media, while abiotic variables refer to water, air, and soil.

2.2 Elements of the environment:

Multiple divisions illustrate the elements of the environment, notably the Stockholm Conference divide, the Snodgrass-Las division, and the raw Wootton division.

2.2.1 Partition of the 1972 Stockholm Conference:

The Stockholm Conference of 1972 delineates the entire idea of the environment, which can be categorized into two distinct sections:

A-The natural element is called (the natural environment) and means everything that surrounds man from the natural elements and not for man entered into his existence, such as water, air, and soil (Al-Sheikh, 2002, p.18).

It also means all the living and non-living phenomena that surround humans and have no effect on their existence, and these phenomena and environmental data are represented in the environment, terrain, climate, soil, plants, and animals. There is no doubt that this natural environment varies from region to region depending on the quality of the data it contains (Al-Saadi, 2008, p.18).

B-The human element, called (the human environment), means man and the achievements that he has created within his natural environment. Human phenomenon varies from one environment to another in the degree of motivation, scientific superiority, and breeds, which leads to the variability of human environments.

2.2.2 Rao Wootton's division:

He divided the environmental framework into four groups, namely:

A-The Natural Environment: Land, climatic conditions, flora and fauna, energy resources, waterways, in addition to natural pollution levels and their various sources and their life relationship.

B-The social environment: it includes the social characteristics of the community, its size, and distribution, as well as social services (transport, culture, politics, health). As well as" social expectations, patterns of social organization and all other manifestations of society in general, the social environment includes patterns of social relations existing between individuals and groups into which society is divided, those patterns that compose social systems and groups in different societies " (Al-Saadi, 2008, p.19).

C-The economic environment: the various economic activities include the various elements of production such as capital, technology, labor, and land, and the resulting national and individual incomes that affect economic well-being (Al-Sheikh, 2002, p.19).

D-Cultural environment: it means the environment that man has created for himself, including material and non-material products to control his natural environment, and to create favorable conditions for his existence.

Therefore, the cultural environment includes the apparent and hidden patterns of behavior acquired using symbols, from which a certain society consists of sciences, beliefs, arts, laws, customs, etc.

Thus, we can see that the environment is not only a resource to which man turns to derive the elements of his life, but also the environment includes the human-human

relationship regulated by social institutions, customs, traditions, values, and religions (Bayan, 2011, p.17).

2.3 The notion of Environmental Conservation:

Environmental Protection refers to the preservation and maintenance of the entity in question, ensuring it remains undamaged and unaltered to prevent any diminution of its worth, which may necessitate specific activities and methods to attain this protection. (Karouin, 2008, p.35).

The objective of Environmental Protection, as per the preceding notion, is to maintain ecological equilibrium or restore the ecosystem to a condition of balance and harmony among its components through the principle of ecological balance.

Some assert that the notion of Environmental Protection encompasses the following: (Yunus and Mohammad, 1993, pp. 333-335):

• To safeguard human communities from the detrimental impacts of specific environmental elements.

• To preserve the environment both locally and internationally from damaging human activities.

• The objective is to enhance environmental quality and tailor it to promote human health and well-being.

Economics researchers adopt a specific concept of environmental protection, addressing issues not to eradicate them entirely, but to achieve an optimal level of environmental degradation, as the total elimination of pollution is deemed illogical and unrealistic.

2.3.1 The scientific principle of Environmental Protection:

The environment has emerged as a critical development initiative that all nations have begun to prioritize, recognizing that such protection is essential not just for human health but also for overall development. (Hammad, 1992, pp. 28-29).

The scientific concept of Environmental Protection is based on the provision of all conditions and possibilities in which a productive person can restore his activity under decent sanitary conditions with the allocation of a portion of production profits to environmental protection within a production system characterized by planning and programming away from the chaos of production, and this requires, at a minimum, stability, national unity and unity of enterprises (Hana, 1995, pp. 1-49).

2.3.2 The legal principle of Environmental Protection:

The many problems facing the environment have led to drawing attention to the need to protect this environment from many dangers, as such protection has become necessary and inevitable.

The Egyptian legislature has attempted to define environmental protection as the preservation and enhancement of environmental components, preventing degradation or pollution, or mitigating pollution levels. The components encompass air and internal waters, such as the Nile River, lakes, groundwater, land, nature reserves, and more natural resources. (Murad, 1996, p. 359).

The Algerian legislator does not explicitly define environmental protection; however, it is implicitly referenced in Articles VIII and IX of the Algerian Environmental Protection Law No. 03/83, dated February 5, 1983, which addresses all types of conservation. Article IX of the Environmental Protection law states: "The safeguarding of agricultural lands from desertification, erosion, and rising waves is a public benefit, with all related measures established by legislative or regulatory texts."

2.4 The concept of environmental policy and its goals:

2.4.1 The concept of environmental policy:

This document delineates the regulations and procedures governing the execution of the environmental strategy, specifying the responsibilities of the various institutions, entities, and units involved. It operates under legally binding directives for each entity and elucidates the evaluation process of outcomes about pre-established objectives, while also detailing the mechanisms for correction and development.

2.4.2 The objectives and tasks of the Environmental Protection Policy:

To reconcile the advantages derived from economic activities with the detriments of pollution, mitigate environmental issues, and minimize associated risks. It endeavours to identify and implement effective measures to safeguard human health, life, and values from all forms of pollution**.**

3. Environmental policy tools and their role in achieving sustainable development:

3.1 Organizational tools:

Regulatory instruments are represented by orders issued by the competent administrative authorities to protect the environment, mainly represented by prevention or authorization, they are also called Control restrictions when they are related to the source of pollution, and there is no way to upload them to others, where restrictions specify where and how pollution is reduced, or about the degradation of land resources and other environmental areas. There are varieties of regulatory tools.

3.1.1 Prohibitions and permits:

They are used by states for direct settlement of environmental problems through environmental protection policies targeting environmental quality, related to natural resources, by setting maximum limits for the release of pollutants that are prevented from exceeding them or forced to choose a specific mode of production based on the licensing and control system. Direct pollution control represents the predominant approach to environmental protection policies, likely owing to its adaptability, as it encompasses various methods aimed at preserving the quality of natural resources, including:

• The challenge of entirely preventing the discharge of waste associated with specific products from certain enterprises into the natural environment. To set limits on the emissions of certain pollutants to improve air quality.

- It is mandatory to use certain technologies both in the production process and in the anti-pollution process.

3.1.2 Standards:

They can be divided into:

A-Emission standards: they serve to determine the maximum amount of waste for a pollutant (the maximum permissible quantity standards for contaminated waste in a particular place).

B-Environmental quality standards: establish overarching qualitative objectives to be attained, contingent upon the medium's capabilities, so correlating with the targets to be realized in assessing the quality of pollution-receiving environments.

C-Product-specific standards: delineate and elucidate the attributes that must be inherent in items to mitigate their environmental impact during usage.

D-Standards for the method: these establish the technical methodologies to be employed in the production process, recycling, and the installation of pollution-resistant equipment, so necessitating the implementation of these measures.

These criteria can be assessed technically by examining the viability of institutions or initiatives and economically using certain economic parameters.

3.2 Economic tools:

Economic tools work to introduce external effects caused by environmental problems and not taking into account the social costs caused by economic activities based on market forces or the mechanism of supply and demand "i.e. price", by affecting the production expense, which all or some of them are transferred to the prices of goods and services produced, and then affect its relative structure, and these, in turn, may affect the volume of consumption through what is known as incentives and disincentives. Economic instruments are divided into three sections:

3.2.1 Environmental levies:

Green levies are widely supported by many political and economic decision-makers, perhaps due to their advantages, especially as an economic tool that contributes to the provision of financial revenues. It can also be used as an important tool for managing and protecting the environment, as an important complement to environmental legislation by using tax policy to guide employers 'decisions towards non-polluting investments, such as exemptions, discounts, or transfers for environmentally friendly" non-polluting" activities. The system mandates that the polluter bears the cost of the pollution generated through waste taxes, adhering to the fundamental tenet of environmental taxation known as the "polluter-payer principle," established by the Organization for Economic Cooperation and Development (OECD) in 1972. This principle asserts that "the polluter should be liable for public authorities' expenditures related to actions intended to maintain the environment in a satisfactory condition." (REDDAF, 2000, p. 25).

It is also working to redirect resources towards environmental policy, such as channeling water network supply fee revenues to support municipalities ' expenses for filtration and water network supply.

The tax policy employs environmental fees, which are monetary charges imposed by the government for the utilization of environmental resources. By "use," we refer to any action that alters the ocean, while pollution is deemed an activity that adversely impacts the environment. There exist three categories of environmental illustrations. (Boudhrai, 2008, p. 72):

A-Transfer royalties or fees: for example, to cover the costs of Environmental Services and pollution reduction measures, such as water treatment (consumption royalty), which can be used as environmental expenses related to water.

B-Inductive fees: they are designed to change the behavior of producers or consumers.

C-Environmental tax fees: they are prepared to increase tax revenues above all.

3.2.2 The system of negotiable licenses and other tools:

This system is represented by the market of tradable licenses, the sale of pollution rights, and the global market of pollution rights, as well as other instruments (Bashi, 2004, pp. 131-132):

A - The market of negotiable licenses:

- The theory of property rights: leaves wide scope for Economic Freedom and the laws of competition mechanisms, on the premise that environmental resources do not belong to anyone. This proposal stems from the assumption that there is a contradiction between the parties, given that the demands of the first category are unrealistic, for example, because it is impossible to stop industrial activities or move cars, and given the fact that excessive use of the second category of their freedom towards the environment will lead to its destruction, especially if property laws are clear and verified that it is economically advantageous to force polluters and pollution victims to negotiate continuously until they reach an automatic agreement on the maximum level of pollution acceptable to both parties (Zarwat, 1999, pp. 103-104).

- Privatization of resources: according to Ronald Coase, the problem of external expenses is caused by the absence or misidentification of property rights on property, and it can be solved by privatizing natural resources. Based on these works, John Dells conceived of a market for user rights in which pollution licenses or rights are sold and bought (Al-hartsi, 2006, p.72).

Thus, when we evaluate the rights to use air, an air pollution market can be established on the same principle as stock exchanges: bonds are issued and exchanged according to the law of supply and demand.

- Comprehensive quota of pollution Rights: pollution rights aim to distribute anti-pollution efforts among different actors while allowing public authorities to maintain a comprehensive threshold for polluting emissions. A fixed number of transferable individual emission rights fits this threshold, and the public authority distributes these

rights by selling them at a fixed price, auctioning them, or distributing them to the relevant institutions according to their production. In this scenario, each firm is permitted to emit pollutants within the confines of the pollution rights it possesses. All additional pollution is penalized, except when an enterprise acquires new pollution rights from another less polluting enterprise, meaning its pollution rights are not fully utilized. In such cases, the elevated pollution levels of one enterprise can be offset by the reduced pollution levels of another through the trading of pollution permits. (Karouin, 2008, p.46).

B-The sale of pollution rights: suggested by Dales J. A system for the sale of pollution rights, predicated on the premise that public authorities can preemptively assess the permissible level of environmental pollution and allocate pollution rights accordingly, thereby regulating the annual volume of pollutants released to safeguard oceanic quality. (Bonnjeux & Desaigues, 1998, p. 70).

C-The global market for pollution rights: the rights markets were established once by the public authority, which has to regulate and monitor them and decide to close them, if necessary, the public authority can work to reduce the threshold of mass pollution according to the growth of technical progress. We can imagine ecological organizations that may acquire bonds to reduce the overall emission threshold, at first these markets were established in a national framework, but they are called upon to move towards global management of environmental issues.

4. Mechanisms of Environmental Protection in Algeria:

4.1 Definition of Environmental Protection Law:

Some jurists define the Environmental Protection Law as a collection of legal provisions aimed at respecting and safeguarding the entirety of nature while preventing its degradation. Environmental protection encompasses a comprehensive safeguarding as articulated in international charters and constitutional mandates, such as Article 3 of the Universal Declaration of Human Rights, adopted and published at the Human Rights General Assembly in Algeria on December 10, 1996. Constitutions worldwide affirm the right to live in adequate environmental conditions, including the Algerian Constitution, which asserts in Article 54 the "right of citizens to care for health." (Constitution of 1996, dated 28/11/1996), According to Articles 01 and 03 of Law 03/10, it is specified. Article 01 establishes that this law delineates regulations for environmental protection, encompassing the promotion of sustainable national development, the prevention of all pollution forms, the restoration of damaged environments, the judicious utilization of natural resources, and the adoption of the most advanced technologies. Article 03 outlines fundamental principles that must be upheld, including the preservation of biological diversity and the principle established on 19/07/2003 concerning environmental protection within the context of sustainable development. The environmental protection law encompasses all legal regulations enacted by the legislature to govern matters pertaining to environmental protection,

including the safeguarding of the natural environment, public health, agricultural lands, and other related areas.

4.2 The concept of the incentivized polluter in Algeria:

The notion of the motivated polluter was established by the Organization for Economic Cooperation and Development (OECD) in 1992.

It asserts that "the polluter must incur the expenses associated with implementing a specific prevention and control procedure mandated by public authorities to ensure the environment remains in an acceptable condition." (Benhabib, 1995, p. 34).

This theory asserts that the polluter bears responsibility for pollution and incurs the associated expenses. The primary objective of the polluter-pays principle was to provide uniformity among OECD member policies for anti-pollution laws.

If the polluter is required to assume all expenses related to pollution control, they should not get any financial aid or support to address the pollution they have generated, as accepting such assistance breaches the notion of the responsible polluter. (Henris, 1993, p. 341).

4.3 Ecological taxes of an incentive nature:

Multiple incentive fees for pollution control can be delineated to promote the non-storage of industrial waste, the non-storage of waste linked to treatment activities, the supplementary fee on industrial air pollution, the fee on urban waste, and the incentive fee associated with coastal pressure relief.

4.3.1 Incentive remuneration to promote the non-disposal of industrial waste:

The implementation of charges on industrial and private garbage seeks to promote non-storage practices. To attain this objective, the finance law of 2002 has stipulated the fee at 10,500 Dz for each stored ton of private and/or hazardous industrial waste, designating the proceeds as follows: 10% for municipalities, 15% for the public treasury, and 75% for the National Environment and Pollution Removal Fund. The incentive charge will take effect three years from the initiation of the facility's waste removal project implementation (Article 203 of Law No. 01/21, December 28, 2001, finance law of 2002, official gazette No. 79/2001).

4.3.2 Incentive remuneration to promote the non-storage of trash associated with treatment operations:

The 2002 finance law instituted a fee to promote the non-storage of hospital waste associated with treatment activities in hospitals and medical clinics, set at a reference price of 24,000 Dz per ton of stored waste, with the weight adjusted based on the treatment capabilities and practices of each institution or through direct measurement. The fee allocation is as follows: 10% for municipalities, 15% for the public treasury, and 75% for the National Environment and Pollution Removal Fund. A three-year period has been allocated for hospitals and medical clinics to furnish or obtain suitable refrigeration equipment (Article 204 of Law No. 01/21, dated December 22, 2001, encompassing the finance law of 2002, official gazette No. 79/2001).

4.3.3 Additional charge for industrial air pollution:

A supplementary fee has been instituted to address industrial air pollution based on the emissions from classified facilities that surpass the legally permissible pollution threshold. This fee is calculated with reference to the annual base rate specified for each type of facility. Should the facility surpass the allowable limits, a multiplier coefficient ranging from 01 to 05 is implemented based on the extent of the pollution threshold exceedance. The fee distribution is allocated as follows: 10% to municipalities, 15% to the public treasury, and 75% to the National Environment and Pollution Removal Fund (Wanas, 2007, pp. 84-85).

4.3.4 The urban waste levy:

The Algerian Legislature granted the municipalities relative freedom to regulate some ecological fees, and as a result of the low value that was imposed on the lifting of household waste, waste lifting services did not develop, and the municipalities were not able to develop methods of treating this waste, as they were only satisfied with lifting waste from urban areas and dumping it in the natural environment, so the finance law of 2002 came to embody the principle of polluter motivation to address this situation, and the rates of these fees were set between 500 Dz and 1,000 Dz for each shop with residential use, and between 1.000 Dz and

10.000 Dz for each shop of professional, commercial, craft or similar use, and between 5.000 Dz and 20.000 Dz on each land prepared for camping Trailers, between 10,000 Dz and 100,000 Dz for each shop of industrial, commercial, artisanal or similar use, produce a quantity of waste exceeding the above-mentioned items (Article 36 of law 02/02 of 05 February 2002, on the protection and promotion of coastal areas, Official Gazette, No. 10/2002).

The fees are established and enforced by the chairman of the municipal People's Council, following consideration by the council and consultation with the Guardian authority, at the municipal level. The municipal People's Council is tasked with the liquidation and collection of residential rubbish within a maximum timeframe of three years, commencing on January 1, 2002.

4.3.5 Incentive fee associated with the alleviation of coastal pressure:

To mitigate the strain and substantial degradation of Algeria's coastal strip, and to promote environmentally friendly facilities, the coastal law has instituted an economic and tax incentive framework that fosters the adoption of clean and non-polluting technologies, as well as other measures associated with the incorporation of ecological costs, as stipulated in the national integrated policy and sustainable development strategy for coastal regions (Article 08 of Law 03/22, December 28, 2003, encompassing the 2004 finance law, Official Gazette, No. 83/2004).

In conclusion, the environmental taxation system exhibits numerous deficiencies and omissions that require rectification or reevaluation to enhance the incentivizing function of environmental levies. These gaps are indicative of the imbalance and ambiguity over

the aims of allocating the proceeds from environmental levies. The ambiguity surrounding the true purpose of environmental fees diminishes its motivational impact, rendering them extra financial burdens that adversely influence the precarious financial conditions of several economic entities, hence necessitating a search for flexibility in their implementation.

5. Algeria's expertise in environmental conservation and sustainable development:

The Algerian government has prioritized environmental concerns and established multiple entities dedicated to environmental protection. In 1974, the National Council for the Environment was founded, comprising various committees representing diverse sectors. In August 1977, the council was disbanded, and its responsibilities were moved to the Ministry of Irrigation, Land Reclamation, and Environmental Protection, leading to the establishment of the environmental directorate. In March 1981, the Directorate was abolished and its responsibilities were transferred to the state secretariat of Forestry and Land Reclamation, resulting in the establishment of the Directorate of Nature Conservation. In July 1983, the National Environmental Protection Agency (ANPE) was created, and in 1984, environmental responsibilities were assigned to the Ministry of Irrigation, Environment, and Forestry, which comprised four sectoral directorates. In 1988, the competencies related to Environmental Protection were transferred to the Ministry of Agriculture, and between 1990 and 1992, these competencies were reassigned to scientific research within the Ministry of Universities. In 1994, the environmental sector was included into the Ministry of the Interior and Local Communities, and a general directorate for the environment, the General Inspectorate of the Environment, and state inspectorates were established by decree in the first quarter of 1997.

The Supreme Council for Environment and Sustainable Development has been formed. This constitutes a significant advancement for the environment. The prime minister presides over it. Furthermore, it comprises 12 ministers alongside members possessing competence in environmental matters. The Supreme Council for Environment and Sustainable Development is tasked with monitoring worldwide policies in this domain and addressing significant contemporary environmental challenges. The Environmental Protection Law No. 83-03 serves as the foundational pillar of Algeria's legislative and regulatory framework for environmental protection, persisting as a policy even post-reform period.

Algeria's experience illustrates that legislative and institutional elements concerning environmental conservation are interrelated, as legislation influences the formation of these institutions and specifies their requirements, powers, and the nature of their integration and coordination. The ongoing instability of the institutional framework from 1994 to 2000 reduced its effectiveness, while the dependence on regulatory instruments during this time led to negative consequences, as seen by the failure of these measures to protect the environment.

The post-2000 period was marked by substantial changes in the institutional framework, as detailed in the following elements (Report on the State and Future of the Environment in Algeria (2003), 320-326):

5.1 Formation of the Ministry of Territorial Development and Environment:

The Ministry of Territorial Development and Environment was founded in 2000, with its internal structure defined by Decree No. 01-09 on January 7, 2001. Its establishment marks the initial institutional initiative to incorporate environmental protection into development plans, reflecting the commitment of government authorities to formulate future development programs that consider environmental factors in their operations.

5.2 The Establishment of the Environmental Professions Monitor:

This was executed in collaboration with multiple ministries to enhance and strengthen capacities within the subsequent groups:

•Local communities: management of solid and urban waste and wastewater.

• The attributes of firms include the implementation of self-regulatory mechanisms, a comprehensive Environmental Management System, and the supervision of industrial waste.

• In the research offices: the evaluation of environmental consequences and environmental assessments.

• Environmental, social, professional, youth, and feminist organizations: training programs aimed at augmenting their ability to advocate for and spread beneficial environmental practices.

5.3 Establishment of a Comprehensive Information System:

Through the development of an information system that works to collect and converge sectoral information, some sectors have tended to adopt this system.

Since the enactment of Law No. 83-03, environmental legislation has undergone numerous advancements. Over the past four years, enhancing legal and regulatory frameworks about the environment has been a central focus of Algeria's sustainable development strategy. Ten texts are regarded as pivotal legislations in this context, five of which have been ratified, while the remainder are still under consideration. Below are some of the ratified laws:

The Environmental Protection Law within the context of Sustainable Development was enacted in July 2003, integrating the fundamental concepts of Sustainable Development established at the Rio de Janeiro summit in 1992.

5.4 Corrective regulatory actions in Algerian law:

These measures are predicated on the repercussions of human activity, aimed at rectifying environmental degradation.

The issue is not only the scarcity of legal texts about Environmental Protection, but rather the insufficient cultural and environmental knowledge, coupled with a lack of political will to foster this understanding.

1-The Role of the Association Movement in Promoting Environmental Awareness: Environmental Protection Law No. 83-03 lacked flexibility for associations operating within the realm of Environmental Protection, which is understandable given that it was enacted before the emergence of environmental issues in the early nineties. Consequently, there is a necessity to revise its regulations to align with the contemporary challenges presented by Law No. 03-10.

2-The integration of environmental considerations into education and training programs has garnered significant attention from environmental authorities due to its efficacy in promoting environmental consciousness.

3-Inclusion of the Environment in Vocational Training: In January 2003, the Ministry of Territorial Development and Environment established a contract with the Ministry of Vocational Training, complementing the existing agreement with the Ministry of Education, to incorporate environmental concepts and create specialized vocational training branches in Environmental Protection.

5.5 Economic instruments of environmental policy in Algeria:

5.5.1 Price Support Policies:

Support policies are often considered to have social benefits, but when excessive, they can lead to serious consequences for the environment. Its main goal is to gradually approach the reality of prices by adopting price policies, such as differentiated prices according to different users to induce economy in water.

A-Financial Support for Energy Prices: despite the significant development witnessed by the prices of energy products during the last decade, the prices of selling these products in the internal market are still widely supported, whether related to primary energy, refining and distribution of petroleum products, or even electricity and natural gas.

B-Subsidizing the Agricultural Sector: traditionally, subsidized prices in this sector concern subsidizing the prices of some agricultural products, administratively set prices, phytosanitary materials, and cheap pricing of water intended for irrigation.

5.5.2 Government Spending (on major environmental programs):

Government expenditure serves as a mechanism of Environmental Policy, and environmental funding from the general budget receives public endorsement; nonetheless, it is deemed inadequate.

Expenditures for Environmental Protection are designated as economic resources primarily allocated for initiatives aimed at mitigating pollution and safeguarding natural resources, predominantly sourced from the state, and chiefly encompass: • The completion of disinfection network and purification station programs.

• The initiative for forest regeneration, land reform, and comprehensive steppe reclamation.

The anti-pollution equipment program is primarily acquired by significant governmental institutions within the energy and industrial sectors.

• The costs associated with waste collection and its disposal in landfills.
• Environmental public health expenditures.
Oversee the operational expenditures of the primary agencies.

5.6 Environmental levies in Algeria:

Algeria has endeavored to implement a series of environmental taxes and fees to mitigate various forms of pollution, particularly air and water pollution. As an oil-producing nation, it is widely acknowledged that the oil industry, encompassing extraction and refining, adversely impacts the environment. Furthermore, the majority of factories are situated along the coastal region, discharging millions of tons of toxic waste into aquatic ecosystems annually. Nevertheless, the pollution levy in Algeria has not attained the necessary threshold, due to a lack of statistics that would disclose alarming figures, and the levying mechanisms implemented in Algeria are more punitive than incentivizing, coupled with their inadequate profitability to address environmental degradation and other state budgetary needs. We shall discuss the principal tax instruments utilized.

5.6.1 Environmental Collection Tools In Algeria:

The first environmental tax was introduced through the finance law of 1992, where the fee related to polluting or Hazardous Activities (TAPD) was imposed, but it seems that the embodiment of environmental collection as an economic and financial tool for the management of Environmental Resources has been carried out only in the past few years.

- Fees for solid waste.

- The Environmental Pollution and Hazardous Activities Fee (TAPD):

Commencing with the finance law of 1992, an annual fee was instituted for activities that are polluting or hazardous to the environment, set at two fundamental rates. For institutions employing more than two individuals, the fee is assessed at 30,000 Dz if they engage in at least one activity requiring a licensing procedure, and 3,000 Dz if they have at least one activity necessitating a permit procedure. For firms with more than two employees, the basic fee is decreased to 6,000 Dz for licensed enterprises and 750 Dz for authorized enterprises.

Licensed institutions are those whose exploitative activities pose risks and disadvantages that could adversely affect public health, hygiene, security, agriculture, environmental protection, preservation of monuments, and tourist areas. The classified institutions requiring permission are those that do not pose any threat or detriment to the aforementioned interests.

The 2000 finance law revised the article regarding the implementation of a fee for ecologically detrimental or hazardous operations, adding two modifications: the first raised the annual fee, while the second instituted a modified fee for each permitted item of the institution.

5.6.2 The Evolution of the Environmental Levy in Algeria:

The finance law of 2002 initiated the implementation of the principle of the motivated polluter, mandating that those accountable for environmental damage contribute to the costs associated with rehabilitation and the allocation of supplementary financial resources to the Environment Fund and decontamination by: • Increasing the fee for household waste disposal to align with management costs.

• The implementation of incentive fees discouraging the storage of hazardous trash and garbage associated with treatment facilities.

• Increasing the cost levied on polluting activities (the significance of multiplier coefficients is paramount) and instituting an additional charge for industrial air pollution (implementation of the principle of the primary polluter).

• The objective of instituting a charge on harmful fuels (leaded gasoline).

Notwithstanding the extensive efforts made in the development of environmental levies, it is imperative to persist in the strategy of increasing rates, particularly to incorporate the externalities associated with pollution control and natural resource management. Additionally, attention must be directed towards alternative financing sources, some of which will be addressed subsequently.

In response to the deficiencies encountered in the execution of environmental programs, various supervisory entities have been established, including: the National Environment and Pollution Removal Fund, the Special Fund for the Development of the Southern Regions, the National Fund for the Protection of the Coast and Coastal Areas, the National Fund for Territorial Development and Sustainable Development, the Special Fund for Economic Development of the Upper Plateaus, the Fund for Combating Desertification, and the Development of Grazing and Steppes.

5.7 Financing and Incentive Mechanisms Adopted in Algeria to Regulate the Environmental Sector:

In addition to the institutional and legislative frameworks, Algeria has considered doing other work to help it protect the environment from degradation, represented by the development of devices that stimulate and finance the environmental sector.

5.7.1 Financing Mechanisms:

The Algerian Ministry of Environment, in collaboration with other ministries, established financial funds, which are represented by:

A-The National Fund for Environmental and Coastal Preservation:

The National Environment Fund was initially established under Article 189 of Law 91-25, which encompasses the finance law of 1992, and subsequently amended by Article 84 of Law 97-02, part of the finance law of 1998. This legislation mandated the creation of a special allocation account titled the National Environment Fund, aimed at financing environmental protection programs and pollution management at the national level. Following the supplementary finance law of 2001, the fund's designation was revised by Article 30 of Law 01-12, transforming it into an allocation to the Treasury, primarily

funded by revenues from fees associated with various polluting activities and fines, among other sources. In early 2018, the fund was rebranded by Article 128 of Law No. 17-11, which encompasses the 2018 finance law, adopting its current designation as the National Fund for the Environment and the Coast. The organization and management of the fund were established by Executive Decree No. 21-159, which outlines the administration of special allocation account No. 065-302, titled The National Fund for the Environment and the Coast, focusing on pollution monitoring at the source and financing environmental oversight (Tunsi, 2022, p. 460).

B-The National Fund for the Protection of the Coast and Beach Areas (CNPLZC) : This fund was created by the finance law of 2003, and its primary functions are as follows (Kouach, 2008, p. 62):

• Financing of applied studies and research pertaining to coastal protection and coastal regions.

• The matter of funding specialized studies focused on tourism destinations, particularly coastal tourist attractions.

• The funding of anti-pollution and decontamination initiatives.

• The objective of safeguarding and appreciating the coastline and shorelines.

Financial contributions for expenses associated with emergency interventions in maritime pollution incidents.

C-The National Fund for the Development and Sustainable Development of the Region (FNAT) serves as a crucial instrument for executing and endorsing the state's policy aimed at the development of the national territory. It promotes harmonious and sustainable growth, wherein the national plan delineates the fundamental strategic directives and frameworks for implementing this policy across the entire national territory. It establishes a reference framework for public authorities' activities in development, tailored to the unique characteristics of each region, while also reflecting the state's endeavours to achieve equilibrium among various regions. Furthermore, it incorporates the environmental dimension into the development process to safeguard the rights of future generations (Fardi, 2021, P.195).

D- The Special Fund for the Economic Development of the Upper Plateaus: Established by the finance law of 2004, this fund is designed to promote and expedite development in the upper plateaus.

E-The Fund for Combating Desertification and the Development of Grazing and Steppe (FLDDPS) was established under two extra financial laws in 2002, with the objectives of combating desertification, protecting and developing regions, enhancing livestock product value, and regulating grazing practices.

5.7.2 Financial Incentive Mechanisms:

The mechanisms of financial incentive or inducement were represented in the creation of green jobs by promoting investment Under Law No. 01-03 of August 20, 2001, which was supported by several amendments and supplements, especially in the

field of environmental protection through various tax and quasi-tax benefits, so that urban solid waste management activities constitute the largest percentage of total investments as (Al-hartsi, 2006, p. 182):

- The collection of household waste constitutes 14 projects, of which 50% are located in the suburbs of the capital.
- The recovery and disposal of waste constitute 28 projects, of which 25% are in the suburbs of the capital.

This was about a look at the state of the environmental sector in Algeria and an attempt to regulate it by resorting to institutional means, as well as various financing and incentive mechanisms, but despite Algeria's constant striving to promote and preserve this sensitive sector, it has not yet reached the desired results due to the deterioration it is experiencing, and this is due to the instability characterized by both the institutional and legislative framework, in addition to the inefficiency and effectiveness of both incentive and financing tools, besides the inability of the competent authorities to carry out a real assessment in the field of Environmental Conservation (Kouach, 2008, P.64).

6. CONCLUSION

A critical challenge confronting the global community today is the preservation and enhancement of the environment to attain sustainable development, which has emerged as a vital criterion for the survival of humanity. Its multifaceted aspects have become paramount priorities on the agendas of numerous nations striving to reform and modernize their societies. Sustainable development encompasses economic, political, social, cultural, and environmental factors.

Consequently, all inhabitants of Earth must save the environment from its imminent risks, ensuring its restoration rather than the destruction of its vital components. Attaining the intended objective necessitates the avoidance of specific incorrect behaviors that are being employed.

The execution of these environmental policies, akin to the economic policies of any nation, necessitates meticulous consideration, as it may significantly influence various macroeconomic variables. This can only be achieved by examining the economic and environmental ramifications of these policies through diligent monitoring of their implementation, coupled with analysis and evaluation of their outcomes, in light of the opportunities and challenges that the enforcement of environmental policies may present within the context of sustainable development. Such policies should be informed by public knowledge of the significance of environmental conservation in attaining sustainable development.

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