



The role of environmental taxes in protecting the environment and the justifications for its creation in the Iraqi tax system

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Abstract

The countries of the world are increasingly working to establish effective mechanisms, adopt suitable policies, and implement legal legislations aimed at protecting the environment and reducing the various forms of pollution it faces. This growing concern is based on the fact that the survival and continuity of human life are inseparable from the natural environment, which must be preserved, protected, and used rationally without overexploitation or destruction. Only then will future generations be able to benefit from its resources in a sustainable manner. Among the many instruments of environmental protection, environmental taxes have emerged as one of the most influential and widely applied tools across many countries. These taxes are designed not only to reduce pollution and encourage cleaner production and consumption patterns but also to achieve fiscal objectives such as reducing unnecessary public expenditures and enhancing state revenues. Experiences in developed nations, particularly within the Organization for Economic Cooperation and Development (OECD), have demonstrated the success of environmental taxes in balancing economic growth with ecological sustainability. Based on this international experience, the current research adopted the basic hypothesis that introducing environmental taxes in Iraq would generate significant positive effects at the environmental level. Such a step could contribute to addressing pollution challenges, improving environmental quality, and laying the foundation for sustainable development in line with global trends and national priorities.

Keywords: Environment, Environmental pollution, Environmental protection, Environmental taxes, Pollution.

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Contribution of this paper to the literature

This study is original as it examines the feasibility of introducing environmental taxes in Iraq, a context rarely addressed in previous literature. Unlike existing studies focused on OECD countries, it highlights Iraq's specific environmental and economic conditions, offering a localized framework for sustainable policy development.

1. Introduction

In recent decades, environmental issues have gained increasing attention and have attracted significant global focus due to their repercussions on all aspects of life, including health, social, economic, and other areas. Iraq is one of the countries suffering from environmental pollution caused by numerous factors that have negatively impacted the Iraqi environment. Additionally, economic activities, particularly agricultural and industrial, along with the methods employed in these sectors, have contributed to the worsening of this problem. If the traditional goal of taxation, considering the state's guardian role, was limited to financing the public treasury, the development of the state's role and the multiplicity of tax functions have led to a new goal and a newly created function: protecting the environment from pollution. Today, it has become a duty for tax legislation to intervene in safeguarding the natural and artificial surroundings in which humans live, complementing the efforts of both international and local legislation in environmental protection. Financial jurisprudence is almost unanimous in recognizing the important role that tax can play in protecting the environment from pollution.

2. Research Methodology and Previous Studies

First: The Research Problem

Iraq suffers from the dangerous effects of environmental pollution resulting from the wrong behaviors associated with various economic activities (oil and industrial...) in addition to the weak environmental awareness in society, and this suffering is exacerbated by the state's need to continue and expand those activities and the accompanying environmental damage, which is great for the country's environment and the health of its citizens. In the absence of an environmental tax law in the Iraqi tax system, the state should intervene to reduce the pollution problem by enacting an environmental tax law in order to protect society and the environment from the dangers of this pollution.

Second: The Importance of the Research

The importance of the research is to highlight the positive effects of introducing environmental taxes in Iraq as a means of protecting the environment from pollution and increasing the general tax proceeds through diverse sources, among which environmental taxes are one of those sources.

Third: Research Objectives

The research aims to achieve the following objectives:

1. Introducing the environment and its pollution.
2. Understand the role of environmental taxes in reducing environmental pollution.
3. Show the motivating factors for enacting an environmental tax law in the Iraqi tax system.

Fourth: The research hypothesis:

The research is based on a basic hypothesis, which is: The introduction of environmental taxes in Iraq leads to significant positive effects on the environmental level.

Fifth: Research Methodology

The researcher relied in his study on the descriptive-analytical approach to study the concepts of environment and environmental pollution and analyze the importance of introducing environmental taxes as one of the means of government intervention to protect the environment from pollution damage.

Sixth: The structure of the research

For the purpose of achieving the objectives of the research, it has been divided into four axes, namely.

The first axis: the methodology of research and previous studies.

The second axis: the environment and environmental pollution.

The third axis: the nature of environmental taxes and their role in protecting the environment from pollution.

The fourth axis: the justifications for introducing environmental taxes in Iraq.

Fifth Axis: Conclusions and Recommendations.

Seventh: Previous Research and Studies

1. Research [Al-Lami, Jaber, and Abboud \(2018\)](#) entitled the impact of environmental tax in controlling the levels of environmental pollution resulting from the activities of foreign oil companies contracting with Iraq. The study aimed to highlight the importance of applying environmental tax as an effective economic tool to reduce the resulting environmental pollution on the foreign oil companies contracting to work in Iraq. The study reached a set of conclusions, the most important of which are: that the environmental imposition of pollution resulting from the activities of foreign oil companies leads to a reduction of pollution, and that imposing this type of taxes motivates these companies to adopt production methods that are less polluting to the environment.
2. Research [Anbaki, Nasrallah, Hussein, and Kazem \(2016\)](#) entitled " The reality of environmental pollution and the use of environmental taxes to reduce it. Analytical research for diesel generators in the province of Baghdad. The research dealt with the depth and dimensions of the pollution problem resulting from the burning of fuel used in electric power generators, where this problem represents a local phenomenon. It has dangerous dimensions to human health, as well as the possibility of using one of the tax system tools represented by environmental taxes to reduce these pollutants.

The research reached a set of conclusions, the most important of which was that environmental taxes will push workers in this field to reduce gas emissions resulting from fuel combustion, which is one of the most important causes of environmental pollution.

3. A study [Al-Saadi \(2011\)](#) entitled "Environmental Tax and its Role in Reducing Environmental Pollution: An Applied Study in Karbala Cement Factory (High Diploma Thesis equivalent to a Master's). The research aimed to develop solutions for the issue of the absence of financial statements related to environmental performance costs, which limit environmental pollution caused by economic units' production activities. It

focused on implementing environmental taxes (pollution taxes) as a practical approach to influence polluting facilities, serving as a deterrent to their negative environmental behaviors. The goal was to limit or reduce pollution to meet permissible limits both locally and internationally.

3. Basic Concepts about the Environment and Environmental Pollution

First: The Concept of the Environment

Definitions of the environment vary in terms of the angle from which it is viewed, and in this context, some of them can be presented: The environment means the natural and industrial surroundings in which man lives, including water, air, space, soil, and organisms, as well as lively and facilities set up by man to satisfy his growing needs (Mikhliif, 2009). It was also defined as: The field in which a person exercises his life and activity with all its components, such as air, water, land, and what is in them and on them, including plants, animals, and various microorganisms (Abdul Hafeez & Imad, 2008). The Iraqi legislator defined the environment as: the ocean with all its elements in which living organisms live and the effects resulting from human economic, social, and cultural activities (Omran & Al-Makhzoumi, 2021).

Second: The concept of environmental pollution is that the environment, with its living and non-living components, is an integrated vital system that can only be maintained in its balance (Al-Helou, Atafa, Jaber, & Hussein, 2013). Environmental pollution can be defined as the damages that occur to the ecosystem and cause an imbalance in its equilibrium, which reduces its ability to provide an optimal life for humans physically, psychologically, morally, and socially. These damages result from human behavior when performing production and consumption activities Ahmed, Ali, and Ali (2013) as it was defined as: the quantitative and qualitative change accidental and intended that occurs in one or more elements of the environment and that would harm the life of the organism and weaken the ability of ecosystems to continue their production (Sarhan, 2005). Omran and Al-Makhzoumi (2021) define environmental pollution as: the presence of any pollutant affecting the environment in an unnatural quantity, concentration, or quality that leads directly or indirectly to harm to humans, other living organisms, or biological components. Where there are

Third: Types of Environmental Pollution:

There are several classifications that can be adopted to identify the types of pollution, including:

1. According to the form of pollution, and it is divided into (Bou Jomaa, 2015).

a. Physical pollution: It is the tangible pollution that surrounds a person, so he feels it and sees it with the naked eye. Most of the time, man's neglect of himself and his continuous pursuit of modern technology have led to the disruption of the ecological balance, which has resulted in air pollution, water pollution, soil pollution, and food pollution.

b. Moral (Non-physical) pollution: It is the invisible pollution that people neglect in the belief that it does not affect the system of natural and societal life. Moral pollution, intellectual pollution, value pollution.

In turn, it is divided into two parts: -

• Electromagnetic pollution: It refers to all forms of damage caused by electromagnetic waves to all creatures, arising from multiple sources. The most significant sources include radio and television stations, high-voltage networks that transmit electricity over long distances, mobile phones, and electronic computers.

• Audio pollution (Noise): refers to a group of sounds whose levels exceed acceptable limits, which are considered harmless to humans. Studies have shown that sounds exceeding 60 decibels fall within the range of harmful audio pollution to humans.

2. According to the activity, and divided into Ahmed et al. (2013).

a. Industrial pollution: It appears in the form of side effects that accompany the production process, intended or unintended, and sometimes called external symptoms. The quality and quantity of industrial pollutants depend on the techniques and methods used, as well as the magnitude of the machinery. The quality of raw materials and the energy used also influence pollution levels. Among the most notable factories polluting the environment are iron and steel factories, oil refineries, paper mills, chemical plants, construction industries, textile factories, and fertilizer industries.

b. Agricultural pollution: It occurs as a result of the excessive and incorrect use of pesticides and chemical fertilizers, or because of the salinity of irrigation water. These substances kill beneficial microorganisms in the soil, which reduces its fertility. Also, due to heat and light, they emit gases that are harmful to the atmosphere.

c. Civil pollution: It is represented by solid household waste, sewage water, and waste from light civil industries, hotels, restaurants, shops, and hospitals.

Fourth: Effects of Environmental Pollution.

There are many effects resulting from the problem of environmental pollution, and we can mention the most important of them as follows:

1. The rapid depletion of natural resources and the exposure of the environment to collapse, along with the destruction of the ecological framework in which humans conduct their economic activities, are significant concerns. This situation is evidenced by the high percentages of lead and various nitrogen oxides in the atmosphere, as well as the widespread occurrence of desertification at high rates. Additionally, there has been a reduction in forests and pastures, the extinction of some types of wild and marine animals, and industrial pollution of the environment. Excessive urbanization and urban sprawl into agricultural lands contribute to soil erosion, while the use of fertilizers and pesticides pollutes waterways and the surrounding environments (Ahmed Abdel-Sabour Al-Deljawi, 2017).

2. Effects of pollution on human health are dangerous and extensive, and the World Health Organization has estimated that 23% of all deaths worldwide, amounting to 102.6 million cases, are due to environmental causes. Low- and middle-income countries bear the burden of pollution-related diseases (UN report) (Ahmed Abdel-Sabour Al-Deljawi, 2017).

3. The economic effects of environmental pollution: the negative effects of pollution are not limited to the material losses it causes, but also include the substantial costs incurred to eliminate and combat pollution and to protect the environment from it, which is often at the expense of providing the necessary funds to implement development plans. This is because pollution and the irrational and unbalanced use of economic resources impose restrictions on the development process through their negative impact on production

growth and physical and human production factors. Pollution of soil, air, and water constitutes a problem that has accumulated over time, and its disposal is difficult or unlikely.

4. What are Environmental Taxes

First: Defining Environmental Taxes

Environmental taxes can be defined as a forced deduction paid by the taxpayer to the state with the aim of protecting the environment, or in other words, it is a tax that exerts a desirable effect on the environment (Abdel Wahed, 2001). It is also known as: cash sums paid by the taxpayer forcibly to the state because of the actions or activities he carried out that caused damage to the environment (Abbas, 2014) and the use of production techniques harmful to the environment (Abdel Halim, 2013). The Organization for Economic Cooperation and Development also defined the environmental tax as: “compulsory expenses without consideration that are collected for the account of the public treasury and are imposed because of the association of its container with the environment.” (A. A.-S. Al-Deljawi, 2018).

Second: The emergence of environmental taxes and their applications. Environmental taxes were first introduced in the early twentieth century by the English economist Arthur Cecil Pego, who served as a professor of political economy at the Faculty of Economics at the University of Cambridge from 1908 to 1944 AD. In his book *Wealth and Welfare*, he proposed imposing taxes on those who pollute the environment as an effective means of combating pollution. He emphasized that government intervention through taxation could make pollution more costly for polluters. If the cost of pollution increases, polluters are likely to reduce their emissions. This tax became known as the Peugeot tax (Shia & Al-Rubaie, 2011) and since the early 1970s, environmental taxes have been recognized as a tool for environmental protection policy, with widespread and increasing acceptance and support in official scientific discussions, whether local or international. Many countries have begun to incorporate it into their national legislation, and it has received attention from numerous international and regional organizations such as the United Nations and the Organization for Economic Cooperation and Development (OECD) (Ahmed Abdel-Sabour Al-Deljawi, 2017). As well as many Arab countries such as Algeria, Tunisia, Egypt, Syria, and the Gulf states (Nayef, Jarallah, & Mahdi, 2021). In Algeria, the state imposed an environmental tax to reduce environmental pollution, represented by imposing fees on polluting or dangerous activities on the environment by institutions. The polluting productivity of the environment, where these fees were imposed at legally defined rates, and then the proceeds of that tax are allocated to the National Fund for the Environment and Pollution Removal, or allocated to the public treasury of the state or to the municipalities of the states (Abboud, 2016).

Third: Types of Environmental Taxes:

There are types of environmental taxes (Ayesh & Mohsen, 2019).

- A tax on products: a tax imposed on products whose production accompanies environmental pollution, with the aim of reducing the volume of production to decrease the volume of pollutants generated to acceptable levels.
- Carbon tax: It is an old tax that was imposed for financial reasons, which applies to types of fuels such as petroleum, petroleum fuels, diesel oil, and natural gas.
- Automobile engine tax: It is a tax that imposes a specific value and for a specific time on the car owner, regardless of the extent of the car's use, with the aim that the owner bears part of the cost of road repair.

Fourth: The environmental taxpayer (The polluter pays principle). Based on the general rules of social justice, the environmental taxpayer is the one who caused the environmental damage. The famous principle (The polluter pays) was formulated by the Organization for Economic Cooperation and Development in 1972 and then enshrined in the sixteenth principle of the Declaration (Rio de Janeiro) in 1992, which urged that the polluter is the one who must, in principle, bear the costs of pollution, and this is within the framework of the public interest and without prejudice to the rules of international trade and investment. The principle of the polluter pays is based on the well-known principle (Sheep by paying), so the person practices his activity and takes advantage of his activity in return causing damage to others or to the environment in all its fields, and based on the requirements of justice, the latter must contribute to the expenses of pollution prevention through the tax he pays (Ben Yahya, 2018). This principle has been recognized by the European Union as a basic principle for all environmental policies (Al-Rahimi, Karbel, & Karim, 2019). It should be noted that the adoption of the polluter pays principle as a principle of environmental policies was not intended to allow polluters to pay in exchange for permitting them to pollute the environment without any restrictions or controls set by the state, but was intended to be a means or tool to reduce the level of pollution as well as provide revenues needed to treat the effects of environmental pollution and preserve the environment (Anbaki et al., 2016).

Fifth: Environmental tax base and methods for determining their price. The rule of justice requires that each individual contribute to public costs and burdens according to his relative ability, which leads to the fair distribution of public burdens among individuals on the one hand, and the establishment of equality among them on the other. To achieve this, an accurate estimate of the amount charged to the polluter is necessary.

1. Determining the environmental tax base: The tax base can be defined as the material on which the tax is imposed or the subject to which it is applied. Choosing the base is the starting point in regulating any tax, and discussing the environmental tax base necessarily involves three issues:
 - a. The first issue: The material on which the tax is imposed: The environmental tax base is not determined by a monetary value as is the case with other taxes but is determined by physical units, such as the volume of waste that flows into water bodies, the amount of pollution released into the air, or the degree of noise emitted by vehicles and aircraft. This method of defining the taxable substance is one of the distinguishing features of environmental taxes.
 - b. The second issue: determining the part on which the tax is imposed, meaning the part that exceeds the optimal level of socially permissible pollution. This level is determined when the marginal cost of reducing pollution is equal to the marginal cost of the damage.
 - c. The third issue: Measuring the tax base in the sense of translating emissions, flows, and waste into equations and tables that are calculated based on the importance of the risks resulting from each type of these components, provided that the amount of tax allocated to each specific unit of measurement is clarified and indicated, according to the type and nature of those pollutants.

2. Determining the price of the environmental tax: The tax rate generally refers to the amount that the taxpayer must pay for each unit of the subject of the tax, or it is the percentage by which the amount of the tax is calculated. There are two methods adopted in most state legislation that implement environmental taxes:
 - Fixed price: that is, determining a fixed value from the value of the tax base, and it is an easy and simple method to apply to the taxpayer and the tax administration.
 - Incremental price: As for the upward method, the tax escalation depends on the tax base escalation, and this allows approaching the principle of justice. Developed countries, and it is the most appropriate application in the case of environmental taxes and has a good effect in reducing pollution (Haroushi, 2021).

Sixth: Environmental Tax Objectives

Environmental taxes are a set of objectives that make them one of the most important tools of both economic and environmental policies, among which we mention (Abbas, 2014; Al-Lami et al., 2018).

1. Imposing environmental taxes aims primarily at protecting human beings. This is done by improving the surrounding environmental conditions and making them suitable and free from all manifestations of pollution, and this is what most of the legislations, laws, and agreements stipulate.
2. Environmental taxes act as a catalyst for innovation among producers. When energy, water, raw materials, gaseous, liquid, and solid waste become taxable, taxpayers will develop new methods of production, which will help achieve greater economic efficiency.
3. Finding and providing new financial sources whose purpose is to protect, treat, and improve the environment and rid it of all kinds of waste and damage caused by economic activities that pollute the environment, by increasing tax revenues that are used to cover environmental expenses.
4. Directing employers' decisions towards the use of modern and environmentally friendly technologies that would reduce the levels of polluting materials presented to the environment in the sense of seeking to positively modify polluters' behavior by deterring them financially, and this is according to the degree of their pollution and damage to the environment, so that the higher the tax rate, the higher the polluter's tendency towards adopting cleaner and more environmentally friendly production techniques, i.e., motivating companies and projects to constantly search for environmentally friendly technology.
5. Contributing to the removal of pollution through the deterrent punitive measures included in the environmental tax, whether they are financial fines or criminal penalties to which all violators of the law are exposed.
6. Environmental taxes are an incentive for society as a whole to move towards good environmental behavior, as they instill in society a culture of preserving the environment in which living organisms live, by avoiding the tax and not using the material subject to it. For example, if it is imposed on the emission of sulfur gases, this will generate incentives for producers to reduce emissions by using filters, etc., or by employing tools that lead to less pollution.

Seventh: The Difficulties Facing the Imposition of Environmental Taxes

Imposing an environmental tax may encounter a number of difficulties, perhaps the most prominent of which are:

1. Difficulties associated with determining the appropriate tax rate that leads to achieving the standard level of pollution. One production unit to another, given that these difficulties are embodied in the selection of appropriate estimation models, in addition to how to identify external costs, determine their scope, and find objective bases for their measurement.
2. Low tax awareness in particular, as imposing such a tax, especially if it is of high prices, will create an incentive for individuals and establishments to evade tax, and pollutants and waste may be disposed of by illegal methods that may lead to increased damage to the environment.
3. The imposition of the tax has some undesirable distributional effects, as it is expected that the imposition of this tax will lead to an increase in the prices of products whose production is associated with environmental pollutants, and the price increase may be significant. This matter depends on the ability of economic units to transfer the burden of the tax and its price, as well as other factors that are not economically acceptable. Socially, the problem becomes more difficult if these products are basic and necessary from an economic and social point of view, such as cement, iron, and steel products. The export of local products may be damaged or at least will impede economic growth as a result of the high cost of production due to the imposition of these taxes.
4. The difficulty of determining the environmental tax base: this base is not determined by a monetary value, but rather by physical units, such as the volume of waste disposed of in water bodies, the amount of pollutants released into the air, or the degree of noise emitted from aircraft and vehicles (Arvand, Dehsaraei, & Esmaili, 2020).

5. The Basic Justifications for Introducing Environmental Taxes in Iraq

There are many justifications motivating the introduction of environmental taxes in Iraq, which we will explain as follows:

First: Environmental Justifications: The environment in Iraq suffers from many forms of pollution, the most significant of which are:

1. Air pollution: It refers to the introduction of pollutants such as gases and chemical compounds into the components of the air, including carbon oxides, sulfur oxides, and nitrogen oxides. The most significant sources of air pollution are:

- a. Gaseous pollutants It is one of the most dangerous elements polluting the air, due to its easy spread and transmission in the air, in addition to its ability to interact more easily than other elements, and its health effects depend on the type of substance, exposure period, and the amount of its concentration in the air. The sources of these pollutants are many, including electric power plants, chemical plants, and brick and cement plants. Hospital staples, as well as fuel used indoors for cooking or heating, in addition to fuel used for planes and cars, all of which are all considered major sources of air pollution.

- c- Fine particles (dust) and fumes that lead to acid rain affect agricultural areas and orchards. The impact of pollution on the biological world has become evident through its effects on respiratory systems, leading to the

disappearance or migration of bird species and other living organisms under the influence of air pollution. This phenomenon is particularly observed in areas experiencing air pollution, especially those near factories and industrial sites, as shown in [Table 1](#).

Table 1. The amount of dust falling on some governorates in 2016.

Governorates	Maintaining dust amount (gm/m ² /month)
Dhi Qar	457
Najaf Al-Ashraf	233
Basra	155
Kirkuk	169
Muthanna	260
Karbala	202
Baghdad	146

Source: Ministry of Environment (2017).

2. Water pollution: It is one of the most dangerous types of pollution, and one of the main reasons for this is the contamination of water sources from various sources:

- a. Wastewater: This water contains more than fifteen serious diseases as a result of containing many types of microorganisms, such as bacteria, parasites, and viruses. The data from the Ministry of Environment indicate that the treated sewage water on a daily basis represents twenty-seven percent of the total sewage water, while the largest part is drained into water sources without treatment, which constitutes an additional burden on the sustainability of Iraq's water resources. Through official statistics, it was found that the proportion of the population covered by sewage network services is twenty-seven percent, and they are distributed unevenly across the governorates of Iraq, as some governorates do not include sewage project services (Omran & Al-Makhzoumi, 2021).
- b. Discharging the liquid wastes of industrial activities in various sectors into the environment causes pollution by inducing physico-chemical and biological effects on environmental elements, especially in the absence of necessary treatments to reduce pollutants present. [Table 2](#) shows the activities that discharge their liquid wastes to water sources during year 2016.

Table 2. Classification of activities polluting water resources in 2016.

The activities	Number
Power stations	11
Oil sector activities	10
Engineering and chemical laboratories	15
Total	36

Source: Ministry of Environment (2017).

3. Soil pollution: Soil pollution is defined as any physical or chemical change that causes a change in its exploitation and renders it incapable of useful exploitation. Agricultural soil receives many types of pollutants depending on their origin, including natural pollutants and human pollutants. Insecticides are among the different types of pollutants.

1. These pesticides are a double-edged sword. In addition to their importance in pest control, their excessive and improper use causes significant damage to the environment and humans due to their toxicity and slow decomposition (Al-Yasiri, 2021).
2. Polluting activities: They refer to industrial, agricultural, and service establishments that discharge their liquid waste into neighboring lands without biological treatment, as seen in [Table 3](#) (Omran & Al-Makhzoumi, 2021).

Table 3. Activities (Service, industrial, agricultural) that dump their waste on agricultural lands.

	Governorate	Name of the activity	Location of the activity
1.	Baghdad	Poultry Field	Agricultural
2.	Kirkuk	Cement plant, North Oil Company, North Gas Company	Industrial
3.	Babylon	Asphalt plant, Dibis plant, power plant	Industrial
4.	Basra	Sixteen waste collection sites and gas isolation plants.	Service industrial

Source: Ministry of Environment (2017).

4. Noise (Audio) pollution: Noise has become a main feature of cities, and crowding is primarily responsible for this. Most city residents consider that excess noise ranks second, directly after water pollution. Among the environmental issues of interest to them, numerous studies have shown that urban residents, in most cases, consider noise to be the worst characteristic of the residential area. The report of the Ministry of Environment on the state of the environment in Iraq in 2017 indicated that there are very high noise levels in the streets, as well as in service and commercial areas in Baghdad and the provinces. This situation warns of future negative consequences and may be dangerous to human health because the noise levels are much higher than the parameters set by the World Health Organization and the established national standards, which are:

The national limiter for service and commercial areas (65) dB.

The national limiter for industrial zones is (70) dB.

The national determinant of health centers and hospitals (50 dB).

It is established on the basis of preserving human health in his environment and ensuring his living in an atmosphere that guarantees his psychological and mental safety, as the increase in the intensity of noise in the city is accompanied by a clear increase in the level of tension in the human personality, with a decrease in his mental absorption and an increase in cases of mental illness. Studies indicate an increase in noise levels as a result of the increase in the number of vehicles and motorcycles and the spread of private generators in the streets of cities, residential areas, cafes, and public stores (Omran & Al-Makhzoumi, 2021) in addition to the forms of environmental pollution that the environment suffers from in Iraq and its causes. The aggravation of this problem, and

environmental awareness is defined as a mental state based on knowledge of environmental issues that results from positive behavior (Al-Hasnawi, Al-Mawla, Abdel Aziz, & Ahmed, 2020). Environmental awareness aims to protect the environment and preserve public health and is mainly based on the individual by changing his behavior pattern towards the environment and society. However, he notes the lack of interest in the issue of the environment and its problems due to the weakness of societal environmental awareness in general, which has contributed to the aggravation of the problem of environmental pollution in the country. The mentioned forms of pollution that the environment suffers from in Iraq require government intervention to mitigate environmental pollution through many tools. The most important of these is the policy of imposing taxes on owners of projects that pollute the environment and obligating them to pay the tax legally to the state, while following the policy of granting exemptions to taxpayers who abandon the production of products polluting the environment and turn to the production of products free of harmful waste.

Second - Financial Justifications: Environmental taxes can be used to increase the state's public revenues, diversify its sources, and reduce public spending. Companies must choose one of three options.

They either stop completely from the activity that pollutes the environment, or they bear the costs of their activities that are harmful to the environment, so that the tax proceeds are used to treat the damage caused by harmful environmental behavior, or they search for technical solutions to ensure that they carry out their activities without polluting the environment. It goes without saying that environmental taxes generate a large amount of revenue, and because the tax base is very broad, any modest amount of tax can bring large returns that contribute to financing the state's general budget. These revenues obtained from imposing an environmental tax can contribute to reducing public spending from two sides.

1. It provides the state's general budget with additional amounts that may exceed the amount required to be spent to reduce environmental pollution, and these revenues may contribute to reducing public spending if they are used to establish projects that were supposed to be carried out in order to advance the wheel of development.
2. Environmental taxes contribute to reducing public spending through their effective role in eliminating the negative effects caused by pollution, which prevents the state from incurring additional expenses to address these effects if they occur or worsen (Arvand et al., 2020).

Finally, the researcher believes that the imposition of environmental taxes on units polluting the environment should be accompanied by the granting of tax incentives to units that are able to adjust their conditions by reducing the quantities of pollution they emit to the environment, ensuring they remain within the limits of the percentages allowed by law. Additionally, the same incentives should be granted to new projects that utilize environmentally friendly technology.

6. Conclusions and Recommendations

6.1. Conclusions

1. We can define environmental taxes as: cash deductions imposed by the state forcibly on those who pollute the environment as a result of their use of methods and techniques harmful to the environment.
2. Pollution that may be the subject of environmental taxation is defined as: Every change in the properties of the environment that leads directly or indirectly to damage to human health and to the exercise of his natural life or damage to natural resources, living organisms, or biodiversity.
3. The Iraqi environment suffers from all forms of environmental pollution (air pollution, water pollution, soil pollution, noise pollution).
4. The effects of environmental pollution are varied between environmental, health, and economic effects.
5. The imposition of environmental taxes is based mainly on the principle of (Polluter Pays), which requires that each person whose activity causes or could cause harm to the environment bear the expenses of all pollution prevention and disposal measures, as well as the restoration of places and their environment to their original condition.

6.2. Recommendations

1. The need for the Iraqi legislator to enact an environmental tax law with the aim of protecting the Iraqi environment from all forms of pollution and reducing public spending directed to getting rid of the adverse effects caused by pollution.
2. The necessity of following the economic price in calculating the price of the environmental tax, and that the tax price reflects the degree of pollution, so it increases with an increase in its level.
3. That the proceeds of environmental taxes are allocated for the purposes of protecting the environment, addressing the harmful environmental effects of pollution, and compensating those affected by environmental pollution.
4. Paying attention to environmental awareness within educational programs in schools and universities, using widespread media, and deepening the culture of preserving the natural environment.
5. Benefiting from the experiences of leading countries in the application of environmental taxes to protect the environment from pollution.

References

- Abbas, M. I. K. (2014). The role of tax in protecting the environment. Master's Thesis, Al-Nahrain University.
- Abboud, S. M. (2016). The role of green taxes in the reduction of environmental pollution: Exploratory research in the general commission for taxes. *Iraqi Journal of Market Research and Consumer Protection*, 8(1), 93-122.
- Abdel Halim, S. (2013). Linking environmental policy with fiscal policy and its impact on sustainable development. Master's Thesis, Farhat University, Algeria.
- Abdel Wahed, A. (2001). Environmental taxes. *Journal of Legal and Economic Sciences, Ain Shams University, Cairo*.
- Abdul Hafeez, & Imad, M. A. (2008). *The environment, its protection, its pollution, its dangers*. Amman, Jordan: Dar Safa Publishing.
- Ahmed, H., Ali, H., & Ali, M. (2013). Environmental pollution and its economic effects on agricultural activity in Basra Governorate. *Journal of Economic Sciences*(32).
- Al-Deljawi, A. A.-S. (2017). *Environmental tax*. United Arab Emirates: Al-Mizan Magazine.
- Al-Deljawi, A. A.-S. (2018). The role of tax policy in protecting the environment from pollution. *Al-Manar Journal for Research and Legal and Political Studies*(7).

- Al-Hasnawi, M., Al-Mawla, A., Abdel Aziz, M., & Ahmed, M. (2020). Following the use of social networks in developing environmental awareness. *Journal of the College of Education, Wasit University*(38).
- Al-Helou, I., Atafa, A. H. J., Jaber, A. R. J., & Hussein, H. (2013). The economic effects of environmental pollution risks, costs, and treatments: Iraq as a case study. *Al-Qadisiyah Journal for Administrative and Economic Sciences, 15*(1), 50–66.
- Al-Rahimi, S. K. A., Karbel, R. K., & Karim, R. (2019). The impact of legal regulation of green taxes in reducing environmental pollution in Iraq. *Journal of the College of Administration and Economics for Economic, Administrative, and Financial Studies, 11*(4), 976–985.
- Al-Yasiri, A. J. (2021). Iraq's post-2003 environmental pollution: Issues and solutions. *Akkad Journal Of Contemporary Economic Studies, 1*(1), 1-16.
- Al-Lami, A. R., Jaber, J. Y., & Abboud, K. H. (2018). The impact of environmental taxes on controlling pollution levels resulting from the activities of foreign oil companies contracting to work in Iraq: An applied research. *Journal of Accounting and Financial Studies, 13*(44), 21.
- Al-Saadi, R. A. (2011). *Environmental taxes and their role in reducing environmental pollution: An applied study in Karbala Ghee Factory (High Diploma, equivalent to a master's degree)*. Higher institute of accounting and financial studies. Baghdad, Iraq: University of Baghdad.
- Anbaki, A.-S., Nasrallah, H. A. M., Hussein, I., & Kazem, H. (2016). The reality of environmental pollution and the use of environmental taxes to reduce it: An analytical study of diesel generator data in Baghdad Governorate. *Journal of Accounting and Financial Studies, 11*(34). <https://doi.org/10.34093/jafs.v11i34.324>
- Arvand, M., Dehsaraei, M., & Esmaili, S. (2020). Electrochemical study on the natural and chemical preservatives antibacterial effect against *S. aureus* PTCC 1112 and its determination at low levels. *Journal of the Iranian Chemical Society, 17*(1), 195-203. <https://doi.org/10.1007/s13738-019-01761-9>
- Ayesh, A. M., & Mohsen, F. F. H. (2019). The green tax and its role in financing the general budget in Iraq. *Journal of University of Babylon for Pure and Applied Sciences, 27*(2), 286-294.
- Ben Yahya, H. (2018). The collection and its role in reducing environmental damage. Master's Thesis, Dr. Taher Moulay University, Algeria.
- Bou Jomaa, S. (2015). The role of taxes in reducing environmental pollution. Master Thesis, University of Bakra, Algeria.
- Haroushi, J. (2021). The role of environmental tax in protecting the environment and reducing pollution. *Al-Haqiqah Journal*(1).
- Mikhliif, A. S. (2009). *Environmental management*. Jordan: Dar Al-Yazuri, Amman.
- Ministry of Environment. (2017). *State of the environment in Iraq*. Retrieved from Republic of Iraq:
- Nayef, A. N., Jarallah, F., & Mahdi, A. W. (2021). The impact of environmental taxes in reducing environmental pollution: Italy as a model for the period 1995–2017. *Future Research Journal*(49).
- Omran, H. S., & Al-Makhzoumi, W. M. (2021). Legal protection of the human right to a healthy environment in Iraqi law. *Turkish Journal of Computer and Mathematics Education, 12*(12), 4664–4672.
- Sarhan, N. A. M. (2005). *Social work curriculum to protect the environment from pollution*. Cairo: Arab Thought House.
- Shia, A. A. H., & Al-Rubaie, Q. K. H. (2011). Using environmental taxes to reduce pollutants emanating from car exhausts: A proposed model for environmental taxation in Iraq. *Journal of Accounting and Financial Studies, 6*(17). 1-24