

## ROLE THE ENVIRONMENT TAX TO SUPPORT BUDGET IN IRAQ

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### Abstract

Similarly, to other countries all over the world, the economic progress in Iraq also causes negative effects on the state budget of the inadequate taxation imposed on polluters. The Ministry of Environment and Health has implemented to the law of protection and improvement of the environment in Iraq No. (27) For the year 2009. The goal of the present research is to analyze the tax indicators that demonstrate the possibility of introducing a new tax. This new environment tax could protect the environment from pollution and increase the tax revenues, thus helping to address the state budget problems as well. The recommendation provided at the end of the research is that a new tax can be imposed, providing the tax accounting possibility.

**Keywords:** Environment tax, State budget, Environment Pollution.

### 1. Introduction

#### 1.1 Introduce the Problem

Iraq suffers from many problems related to the environment and its pollutants in addition to the conditions that Iraq went through from wars. Warfare led to the exacerbation of the environmental problem on the one hand. On the other hand, it has generated the need to increase tax revenues to address the public budget deficit. Therefore, the study examined, through two axes these issues. The first axis included the theoretical framework for research that covers a number of aspects, namely the concept of environment and environmental pollution, the concept of tax and environmental tax, the difference between tax and other revenues, the goals of imposing environmental tax, the advantages of environmental tax. The second axis in the practical framework for research includes the indicators of tax performance in Iraq, financial allocations to the Ministry of Environment, the Law for the Protection and Improvement of the Environment in Iraq, and finally the proposed framework for environmental tax in Iraq.

#### 1.2 Research problem

Iraq faces great challenges in low oil prices and high budget deficits, showing the importance of developing a financial resource other than oil that contributes to rebalancing the Iraqi economy. A valid proposal is increasing tax revenues in order to find a solution to this problem. One of the taxes that our economy needs to impose is the environmental tax on pollution. The present study identifies a problem through the following questions:

- 1- Is there a non-independent tax energy that we can impose on environmental pollution?
- 2- How to do a tax calculation?

### *1.3 Research importance*

The importance of research in human beings and their health lies in protecting them from pollution on the one hand and increasing tax revenues on the other hand in order to address the damages of these pollutants through the imposition of environmental tax as an effective tool to address the pollutants that the Iraqi environment suffers from.

### *1.4 Research objective*

The research aims to achieve the following goals:

- 1- Study tax indicators in Iraq to identify the possibility of imposing an environmental tax.
- 2- Determine the supplies required for the imposition of the environmental tax.

### *1.5 Research hypothesis*

The research is based on the basic premise, which is that there is no direct relationship between imposing environmental tax and increasing public budget revenues.

## **2. Method**

### *Theoretical framework*

The concept of environment and environmental pollution

Connecticut, one of the United States of America, used the environmental tax to address its projected budget deficit (3.2 billion dollars) for the year 2012 as it generates a "double dividend at the same time to absorb external factors of pollution and improve environmental quality on the one hand, and increase revenue on the other" (1). The 1972 Stockholm World Conference on Environment has defined that the environment is "everything a person lives in, surrounds and obtains from him the essentials of his life in terms of food, medicine and shelter" (2). Likewise, the environment was known as "the framework from which a person obtains the essentials of his life from food, clothing, etc. and lives with his fellow humans" (3). The environment, according to the opinion of scientists, is the wide range of social, economic, and natural elements that overlap with one another and that affect individuals or groups to determine their characteristics and relationships (4). As for pollution, it is defined as "the negative effects on the components of the environment, such as water and air, which leads to the prevailing imbalance of them" (5). For the environmental scientist (Odum), pollution has been defined as "a physical, chemical, or biological change that damages water, air, or earth, which harms human health and other organisms" (6).

The concept of tax and environmental tax

The tax was defined as "a pre-determined obligation without consideration paid to the state by the private sector to achieve its economic and social goals" (7). The most commonly used definition is "compulsory cash deduction of the state's assumption through one of its financial institutions in order to cover public burdens without charge for distribution to economic units and according to their assigned capacity" (8). The tax legislator has taken, according to Article (28) of the Iraqi constitution for the year 2005, the modern concept of tax, considering the tax as "non-financial goals" in addition to its original goal of feeding the state's general budget. And the

accumulated tax revenue after imposing the environmental tax has become 2% of the gross domestic product in the countries of the Organization for Economic Cooperation and Development, and may exceed (4%) of the gross domestic product in some other countries (9). The environmental tax has been defined as "a compulsory deduction by the state, free of charge, in a container that represents a private environmental interest" (10). The Organization for Economic Cooperation and Development has stated that the environmental taxes are "compulsory expenses that are collected for the account of the state without consideration in order to achieve a public interest and the collection of which is linked to the environment" (11).

The difference between tax and fee

There are some revenues that the state receives that are not tax and the fee is "a cash amount that the state collects for reparation" from the taxpayer in exchange for providing a specific service for him in order to cover its expenses "such as the driving license fee and the fees of the Ministry of Justice" (12). Fees are similar to taxes in that they are paid in cash and obligated to pay to cover expenses, but they are different from the tax in that the fee is paid for a direct service provided to the citizen (13). The tax differs from the fee because it is forcibly paid to the state without compensation for a good or service or with the intent to punish or to prevent unlawful behavior without the ability to recover it (14). The environmental tax from the financial front is a compulsory contribution to people or projects whose activities cause environmental damage and the financial proceeds are used to treat environmental pollutants among other services provided by the state.

To impose environmental tax, the objectives are (15):

- 1- Ensure a healthy environment for every person in the community, being stipulated in various laws.
- 2- Motivate producers and consumers not to deal with pollutants or their pollutants.
- 3- Obtain financial resources that help in achieving development and reducing the public budget deficit.
- 4- Apply the principle of polluter paying to protect people from the manifestations of pollution.
- 5- Lead the taxpayer to work on decontamination, as legal procedures alone are not sufficient to deter violators.

Types of environmental taxes

There are several types of environmental taxes (16).

- 1- Product tax: It is a tax imposed on products whose production accompanies environmental pollution, with the aim of reducing the volume of production to reduce the volume of the produced pollutants to acceptable levels (17).
- 2- Carbon Tax: It is a very old tax that was imposed for financial reasons on fuels, such as petroleum, oil fuel, diesel oil, natural gas (18).
- 3- Motor vehicle tax: It is a tax that imposes a specific value and a specific time on the car owner, regardless of the use of the car, with the aim that the owner will bear a portion of the cost of road repairs.

2.1 Practical framework

**Environmental performance indicators in Iraq**

This indicator is a documented and approved tool by environmental experts, as it represents the quality of life at all levels. This indicator contains nine components divided into two categories: environmental health and the vitality of the ecosystem. The comparison of the global ranking of this indicator in Iraq and versus other Arab countries for the years 2015, 2016 is shown in table (1)

Table (1) Comparison of the environmental performance indicators in Iraq and Arab countries for the period 2015-2016

Country	World ranking		Difference between 2015 -2016
	2015	2016	
Tunisia	54	53	1-
Morocco	47	64	17
Jordan	88	74	14-
Syria	134	101	33-
Egypt	158	104	54-
Iraq	83	116	33
Libya	118	119	1

Source: The table has been prepared by the researcher, using the Davos Economic Forum 2016 reports.

Included in the above table is the rise of the index in Iraq for the year 2016, where its sequence reached (116). For the year 2015, the value of the index was 83, which makes a difference of 33. This indicates the decline in the performance of Iraq by its interest in the environment and its improvement. It also shows the high rate of environmental pollution on human health and other organism, which requires holding the pollutants accountable.

**Financial allocations to the Iraqi Ministry of Environment**

Mali is allocated annually to the Ministry of Environment in order to perform its duties from the state budget, in dealing with environmental pollution and holding accountable those responsible, according to the Law for the Protection and Improvement of the Environment in Iraq No. (27) For the year 2009. The extent of the state’s budget bearing the burden of the Ministry of Environment, which increases the public budget deficit, is shown in Table (2).

Table (2) Percentage of the financial allocation of the Iraqi Ministry of Environment to the country's public spending for the period 2011-2016 (amounts in million dinars)

Year	Financial Allocation (1)	Public Expenses(2)	Public Expenses Allocation Ratio ½%
2011	681911	96662766	0.705
2012	458000	57142069	0.802
2013	680000	68252310	1
2014	345621	73615335	0.443
2015	316585	51832838	0.611
2016	487231	51173425	0.952

Source: The table was prepared by the researcher, drawing on the Iraqi facts for the years 2011-2016

We note from the above table that the percentage of financial allocation in recent years has increased gradually, as the proportion of financial allocation to public spending for the period 2011-2016 has reached 0.705, 0.802, 1, 0.443, 0.611, 0.952, respectively. These results indicate that the expenditures of the Ministry of Environment are a burden on the public budget. Additionally, even with all these expenditures, there have not been good indicators of environmental performance.

### **Iraq Environmental Protection and Improvement Law**

Fees and fines are imposed according to Law No. (27) Of 2009 by the Ministry of Environment on projects that cause environmental pollution. The legal articles for Chapter Four include the following punitive provisions:

#### Article 33

Imposing the warning penalty on any source polluting the environment in the event that the influencing factor is not removed within (10) days from the date of the notification, and in case of non-compliance, the Minister has the authority to suspend work or temporarily shut down for a period of (30) days subject to extension until the violation is removed.

Imposing a fine not less than (1) million and not exceeding (10) million dinars, which is repeated monthly until the violation is removed

#### Article 34: The offender shall be punished

With imprisonment of no less than 3 months or a fine 1- 20 million dinars.

The penalty is doubled when the violation is repeated.

As for the instructions attached to the above law, imposing a fine according to the severity and type of pollutants (dangerous, toxic):

- Minor fine (1) million dinars
- An average fine of (5) million dinars
- A maximum fine of (10) million dinars

By determining the amount of the fine in a minimum and maximum, according to the above law, the cause of the pollution will be fined in an objective and unjust manner, without scientific foundations. The determination of the fine is left to the Ministry of Environment, so the specific amount of the fine should be determined according to the type and percentage of pollution.

### **Tax indicators in Iraq**

#### **Tax power**

This indicator shows the taxpayer's ability to bear taxes, as it represents the amount of revenue that can be collected from taxes, taking into consideration the ability of individuals to pay taxes (19). These indicators are included in Table (3)

Table (3) Tax energy in Iraq for the period 2011-2016 (million dinars)

Year	Tax revenue (1)	National income (2)	Tax power ½%
2011	1783593	192237070	0.928
2012	2633357	227221851	1.159
2013	2518630	243518659	1.034
2014	5035251	237554034	2.120
2015	5397000	187486415	2.879
2016	5181881	164536210	3.149

Source: The table was prepared by the researcher using the data of the Ministry of Planning, the national accounts, and the tax revenues from the General Tax Authority, Planning Department.

Through table (3) above, we find that the percentage of tax energy has reached 0.928, 1.159, 1.034, 2.120, 2.879, and 3.149 for the 2011-2016 study years respectively. The lowest tax energy in the year 2011 was (0.928%), and the highest rate was in 2016 (3.149%). However, it is a low percentage compared to the percentage set by Colin Clark, of 25.5% (20). This shows that there is an untapped tax energy, which indicates that there is the possibility of imposing a new tax.

### The tax burden

This indicator reflects the extent of the ability of the tax apparatus to collect taxes and the amount of tax evasion. It also shows its suitability to the economic situation, which is the ratio between the total tax proceeds and the gross domestic product (GDP). This indicator also reflects the extent of tax policy efficiency in financing (21).

Table (4) the tax burden in Iraq for the period 2011-2016 (million dinars)

Year	Tax revenue (1)	Gross domestic product (2)	Tax burden ½%
2011	1783593	217327107	0.820
2012	2633357	254225490	1.035
2013	2518630	273587529	0.920
2014	5035251	258900633	1.944
2015	5397000	191715791	2.815
2016	5181881	171490000	3.021

Source: The table was prepared by the researcher using the data of the Ministry of Planning, the national accounts, and the tax revenues from the General Tax Authority, Planning Department.

It appeared in the above table that the highest percentage of the tax burden in Iraq in 2016 reached 3.021 %, and the lowest rate in 2011 was 0.820%. We find a gradual increase in the tax burden for the study years from 2011 to 2016. When comparing the average tax burden with the tax burden identified by studies conducted by the International Monetary Fund for developing countries, we find that the latter was 18% (22). This confirms the low tax burden in Iraq, which indicates the possibility of imposing new taxes.

**The proposed framework for the environmental tax in Iraq**

An environmental tax is an indirect tax, as it is an accidental tax imposed when environmental pollution occurs for different types to be measured, such as air, water and soil pollution. In order to be able to impose environmental tax within the tax structure in Iraq, the following modifications must be made:

**A- Legislation**

When imposing an environmental tax, a law must be enacted, as the tax can only be imposed by law. As stipulated in the Iraqi constitution, the tax can be imposed only provided that the occurrence of the tax is established, and that pollution occurs. The environmental tax is calculated at the same time as the income tax for the activity. The environmental tax law must address all tax aspects, including incentives and exemptions.

**B- Measuring environmental pollution**

When conducting tax calculations and determining the annual environmental tax amount, the Environmental Protection and Improvement Law is applied by the Ministry of Health by submitting its report with the amount of environmental pollution for the economic unit to the General Tax Authority. A comparison is made between actual, local and international normative values for each polluter to determine the amount of deviation, through the use of the following equation:

Absolute deviation = actual value - standard value

In the event that the result shows a deviation (negative), it indicates that the deviation is appropriate, but if the absolute deviation is positive, it indicates that the deviation is inappropriate. It should be noted that every polluter of the environment has limits permitted locally and internationally, according to the global health determinants. An escalating percentage of the tax is imposed in proportion to the amount of pollution, according to the levels determined by the law that the damage caused by pollution be removed, until it becomes a clean green project and environmentally friendly. In the case of paying the tax and not removing the damage, the penalties stipulated in the Law for the Protection and Improvement of the Environment No. 27 of 2009 are applied to the project owner. In case the tax is not paid, the tax amount is doubled in addition to other penalties.

**C- Incentives and exemptions**

The environmental tax law should address incentives and incentives exemptions for economic units to reduce the amount of pollution, namely:

- 1- Exempting the company from all customs taxes when importing machines of high environmental specifications.
- 2- Granting bank loans to help companies buy modern and environmentally friendly technologies.

**An applied case of how to calculate environmental tax**

A sample of brick factories was chosen in Dhi Qar. These factories are:

A-Brick Factory (A) was established in 2008 and has the approval of the Ministry of Environment, but it does not conform to the site determinants.

B- Brick Factory (B) was established in 2009 and has the approval of the Ministry of Environment, but it does not conform to the site determinants.

### 1- Gases emitted from brick chimneys and their effect on health

Table (5) lists the gases resulting from the combustion of fuel used in furnaces that affect humans and living organisms.

Table (5) Gases and their impact on the environment issued by the brick factories, the sample of the research

NO	The name of the gas	Its effect
1	Carbon monoxide	Toxic gas
2	Sulfur oxides	Inflammation of the respiratory system
3	Hydrocarbons	It leads to death of humans and living beings
4	Solids (dust, lead, cadmium)	Its ability to absorb carcinogenic toxins affects human health

Source: The table was prepared from the records of the Ministry of Environment.

Table (5) shows the gases produced from the brick factories from the research sample that lead to negative effects on humans and other living organisms. The most dangerous and most polluting gas in the environment is carbon monoxide.

### 2- Chimneys

The bricks parameter of the research sample contains chimneys of the height brick factory (A) (30) meters, and laboratory (B) (25) meters. These chimneys disperse combustion gases, and the rate of gas concentration depends on the height of the chimney. The highest gas concentration is at a distance equal to 5 times the height of the chimney. The higher the chimneys, the less the percentage of pollution is generated by the factory. According to the fuel used, it requires that the height of the chimneys of the research sample be doubled to reduce the effect of smoke on the environment.

### 3- The ball

The use of black oil and of primitive operation methods leads to black smoke that affects the environment. This effect increases with the presence of other brick factories. In order to perform the tax calculation of the environmental tax for the research sample lab, the following steps are taken:

**The first step** - determining the percentage of deviation from the local or international standard.

By comparing the pollution ratios issued by the laboratories, the sample of research with each of the local and international standards, the amount of deviation of the following pollutants was determined in Table (6).



Table (6) Deviations from the local and international standard for the pollutants emitted from the research sample

Statement	Rate A		Rate B	
	Domestic%	international%	Domestic%	international%
Carbon monoxide	-	-	-	-
Sulfur oxides	22	22	18	18
Hydrocarbons	15	15	31	31
Lead	43-	50	40-	40
Total	80	92	89	89

It is clear from the table above that the pollution percentage for each of the brick factories (A and B) is compared by taking the amount of pollution in the research sample for both the local and international standards. The total local deviation of the research sample was 80%, and 89%, respectively for each of A, and B. The percentage of deviation from the international standard was 92%, and 89% for factory A and factory B, respectively. This necessitates imposing an environmental tax for the sample factories.

**The second step** – determining the amount of tax imposed

The tax amount can be determined in ascending order according to the total deviation rate between the pollution rate for the local and international laboratories.

The first Category = impose a tax of 10 million dinars if the deviation is 50% or more.

The second category = impose a tax of 7 million dinars if the deviation is between 25% and 50%.

The third category = impose a tax of 5 million dinars if the deviation is between 5% and 25%.

According to Table (6), a tax of (10) million dinars will be imposed, corresponding to the first category.

**The third step** - exemptions

Exemptions are not granted to the research sample factories, as they had not made any modifications to stop the polluter.

**The fourth step** - tax after deduction exemption

The amount of tax imposed on each A and B factories of the research sample remains at 10 million dinars, as there is no exemption.

**The fifth step** - tax collection date

Environmental tax calculations are done at the same time as the income tax calculation for the fiscal year. The payment of the environmental tax cannot be postponed or backed up as it is a specified amount according to the report of the Ministry of Environment.

**Sixth step - penalties**

In the event that the tax is not paid at the end of the fiscal year specified by the financial authority, as proposed in the fifth step, and after performing the calculations, a double tax is imposed, becoming 20 million dinars.

This proves the incorrectness of the hypothesis, as there is a direct relationship between imposing the environmental tax and increasing the revenues of the public budget, by imposing the tax on the production facilities whose production causes environmental pollution after listing and specifying it.

(1)

**3. Results**

1- The environmental performance index in Iraq for the year 2016 decreased from the percentage of 2015 by a difference of 33 points, in addition to the decrease in the performance of Iraq, compared to other Arab countries, as shown in table (1).

2- There is unexploited tax energy in the 2011-2016 study years, when the highest rate in 2016 was 2.07%.

3- There is a decrease in the tax burden index during the 2011-2016 study years, as the highest index in 2016 reached 1.734%, which indicates the weakness of the efficiency of the tax system.

4- The chimneys of the brick factory from the research sample for each of the brick factories (A and B), are not of the required height, which would that help reduce environmental pollution.

5- Deviation of the pollution rate of the sample for searching for the local and international standard at a high rate, which requires the imposition of a tax of 10 million dinars, provided that the cause of the pollution is treated.

**References**

1. 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.
2. Dergham Karim Kazem, & Nahida Jalil Al-Ghalabi. (2016). Environmental pollution from an Islamic perspective (chemicals) as a model. *Journal of Ahl al-Bayt, peace be upon them*, 1 (19), 124-150.
3. Jamali, D., & Karam, C. (2018). Corporate social responsibility in developing countries as an emerging field of study. *International Journal of Management Reviews*, 20(1), 32-61.
4. Abd, Saadoun Al-Mankhi, "The Economic Effects of Environmental Pollution and Its Effects on Agriculture in Iraq and Methods of Treatment", PhD Thesis, Faculty of Management and Economics, University of Baghdad, 2015.
5. Bačík, R., Mudrik, M., Štefko, R., & Kot, S. (2016). Analysis of tourism travel trends after 2014. *Journal of Environmental Management and Tourism*, 7(1).
6. Barles, S. (2019). Urban Metabolic Self-sufficiency: an Oxymoron or a Challenge?. *Local Energy Autonomy: Spaces, Scales, Politics*, 1, 331-350.
7. Rodrik, D. (2018). Populism and the Economics of Globalization. *Journal of international business policy*, 1(1-2), 12-33.

8. Mohamed, Amr Hisham, "Introduction to Public Finance", First Edition, Dar Al-Doctor for Administrative and Economic Sciences, Baghdad, 2016.
9. Yih, H., Huang, H., Li, F., & Tsai, C. (2018). Environmental Tax Reform, R&D Subsidies and CO2 Emissions: View Double Dividend Hypothesis. *International Journal of Energy Economics and Policy*, 8(5), 288.
10. Qadi, Abdul Majeed," *Studies in Taxation*", First Edition, Dar Hariri for Publishing and Distribution, Amman, 2011.
11. Maryam, Mahrez Noordin, *The Effectiveness of Applying Fees and Taxes in Achieving the Goals of Sustainable Development*, Al-Wahat Magazine for Research and Studies, vol 9,no2,pp.605-631 2015.
12. Lima Rodrigues, L., Craig, R., Schmidt, P., & Santos, J. L. D. (2018). Accounting and taxation practices in the operation of slavery in Brazil.
13. Kholkin, A., Zonova, A., Bespyatyh, A., Gamulinskaya, N., & Artemyeva, O. (2019). Tax Accounting System for Geotechnical Construction. In *MATEC Web of Conferences* (Vol. 265, p. 07018). EDP Sciences.
14. Ali Youssef Abdullah Mahmoud, & Saeed Ali Mohamed. (2019). The importance of reforming the tax system and its role in public revenues in Iraq for the period (2004/2016). *Anbar University Journal for Economic and Administrative Sciences*, 11 (26), 160-186.
15. Al-Saadi, Rabia Attallah," *Environmental Tax and its Role in Reducing Environmental Pollution*", *Journal of Accounting and Financial Studies*, University of Baghdad, 2011.
16. Abboud, Salem Abboud, "The Role of Green Taxation in Reducing Environmental Pollution", *Al-Iraqiya Magazine, Market Research and Consumer Protection*vol6, no1, pp.103-126, 2016.
17. Burton, D. (2017). *Tax Reform: Eliminating the Double Taxation of Corporate Income*. Available at SSRN 2998213.
18. Mabrouk, Nazih Abdel Maqsood, "Green Taxes and Tradable Licenses as Pollution Control Tools", University Thought House, Alexandria, 2011.
19. Fisher, R. C. (2018). *State and local public finance*. Routledge.
20. Radhi, H. (2018). The relationship between government expenditure and GDP in non-oil Iraqi economy. *Journal of the Arab American University*. Volume, 4(2).21 .
- Al-Khazali, Raya Hajafat Abdullah, "The Impact of Financial Policy on Tax Revenues", the Higher Institute of Accounting and Financial Studies, University of Baghdad, 2015.
22. Saadani, Saad Ali," *The Role of the Tax System in the Redistribution and Distribution of National Income in Iraq for the Period 2004-2013'*, Higher Institute of Accounting and Financial Studies, University of Baghdad, 2016.