

Research paper

The impact of environmental taxation in achieving sustainable development in Morocco: the case of environmental protection

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PAPER INFO

Paper History

Received 17 October
2023

Accepted 11 August 2024

Keywords

Ecotax

Environmental taxation 2

Environmental protection

Pigouvian taxation

Sustainable development

ABSTRACT

This study aims to highlight the role of environmental taxation in protecting the environment from pollution, as the environment is faced with the threat of pollution which prompts countries to seek ways of mitigating its negative effects through the application of prevention or control tools and methods, and the most important result of our study is that environmental taxes are a powerful incentive to innovation if they are better selected, and they also improve competitiveness to have low-emission alternatives, and that the use of environmental taxes is preferable to the application of regulatory tools in terms of cost. In order to carry out this study, this research follows the positivist paradigm by using an exploratory approach based on documentary analysis. Data will be collected from primary and secondary sources.

1 Literature review

1.1 General framework

Countries use taxation as a policy to implement economic projects, and among the most important forms of taxation is the eco-tax, which serves to protect the environment from pollution and waste. Interest in the environment began at a global level, starting with the United Nations Conference on Environment and Development, better known as the Rio Earth Summit, held in Rio de Janeiro in 1992, marked by the adoption of the United Nations Framework Convention on Climate Change, and continuing with the United Nations Conference on Environment and Development in 2008.

Morocco is one of the countries suffering from environmental problems, which is why our country has adopted the concept of sustainable development in its new development model. This promotes a balance between environmental, economic and social dimensions, with the aim of improving citizens' well-being and preserving natural resources for future generations, in line with its international commitments.

As a result, it has made efforts to develop an arsenal of laws and legislation relating to the protection of the environment against deterioration and pollution, starting with the Kingdom's 2011 constitution, which enshrined therein the right of all citizens to sustainable development and to live in a healthy environment. In 2014, framework law no. 99.12 was promulgated as the national environment and sustainable development charter, which stipulates the need to draw up a national sustainable development strategy.

Achieving sustainable development in Morocco requires a number of legislative and control mechanisms, including eco-taxes, which contribute to sustainable development as a deterrent and incentive.

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Ecotaxes are considered to be one of the economic tools for protecting the environment, which is why countries attach great importance to them. For this reason, in this part of the study, we will look at eco-taxes in terms of their definition and objectives.

Today, it has become a force for correcting the behavior of economic agents, as well as an effective tool for any environmental policy. In this sense, the main question is as follows: "how can environmental eco-taxes be a tool for ensuring that economic and social objectives are balanced with environmental concerns?".

1.1 Conceptual framework

Environmental taxation was first introduced by the economist Pigou Cecil Arthur and in his book "Welfare Economics" published in 1917, in which he proposed the creation of a tax as an appropriate means of combating pollution. [1], [7].

Environmental taxation is defined as: "a type of economic tool for solving environmental problems, designed to absorb environmental costs and provide economic incentives to people and companies to promote environmental protection"

Environmental taxation, also known as green taxation, or ecological taxation, can also be defined as: "a set of tax measures that have an impact on the environment", i.e. it is also a type of levy specifically aimed at protecting the environment by reducing environmental degradation and overexploitation of natural resources.

1.2 Theoretical framework

Environmental pollution is seen in neoclassical theory as an example of market failure, and the field of environmental economics is largely devoted to finding ways to reduce pollution, and to correct or internalize these externalities.

In addition, the literature on environmental economics has studied the Pigouvian tax approach to correcting externalities, implying an active role for the state, insofar as the environment is seen as a frontier of economic growth. From this theory, the OECD has taken up, with modifications, a new principle called "the polluter- pays principle", i.e. making the polluter pay for the pollution he has caused.

Consequently, according to economic theory, as developed in 1920 by Arthur C. Pigou, this dysfunction can be avoided by internalizing externalities (the theory of externalities) [6].

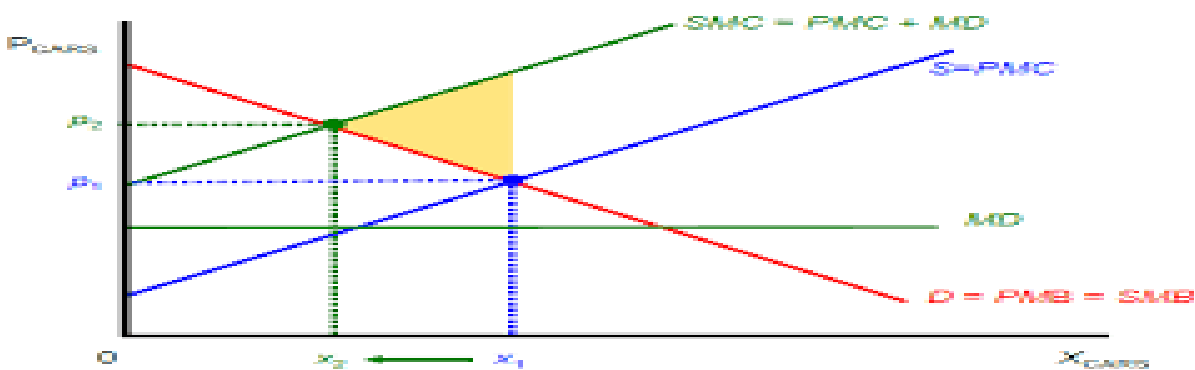


Fig. 1: Environmental tax regulation in the Pigouvian framework

This Pigouvian tax minimizes the sum of depollution costs to achieve a given environmental result according to the principle of equimarginality. [5]

According to environmental economic theory, the use of economic instruments (such as taxes) in environmental policy will lead to more cost-effective pollution reduction than the use of administrative instruments. [8]

The rapid expansion of population, economic activity and road traffic has increased ambient concentrations of pollutants in urban centers. Air pollution-related heart disease and stroke, for example, cause around 700 premature deaths a year in Casablanca alone.

The following graph shows that premature deaths (mortality) account for the majority of air pollution costs, ahead of the increase in chronic and acute illnesses (morbidity) of around 2,200 deaths in 2014.

According to Croitoru and Sarraf (2017), air pollution costs Morocco around \$1.14 billion a year in premature deaths and illnesses, equivalent to 1.05% of GDP in 2014. [4]

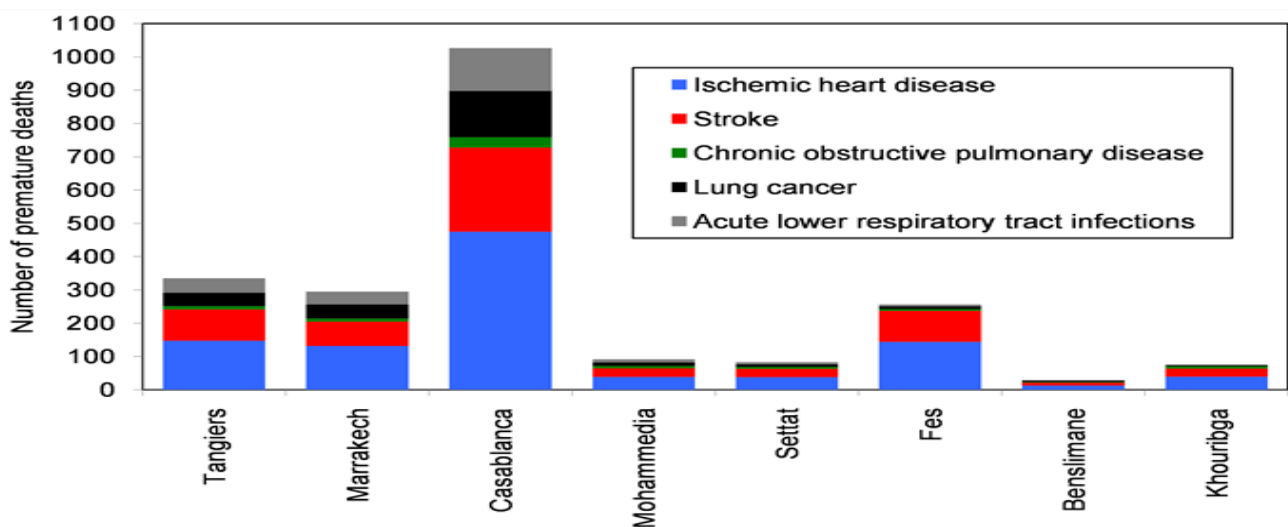


Fig. 2: Environmental tax regulation in the Pigouvian framework

2 The objectives of environmental taxation and sustainable development

2.1 The objectives of environmental taxation

Among the objectives of environmental taxation are:

- To contribute to the financing of environmental protection policies by increasing the tax revenues used to cover environmental expenditure. This objective is one of the main reasons for the introduction of environmental taxes in most countries
- It helps to drive up the price of certain polluting materials, leading consumers not to buy them. As a result, companies are forced to switch to environmentally-friendly products;
- It contributes to the dissemination of information on polluting products, and exerts a regulatory influence on consumer decisions to preserve environmental sustainability;
- Create incentives for producers and consumers to refrain from environmentally damaging behavior, through the design of more efficient production methods, while rationalizing the use of energy.

Table 1: First international environmental conventions [3]

1885	Berlin Convention on the Rhine Salmon
1895	Paris Conference on Bird Protection
1900	London Conference on Bird Protection
1902	Paris International Conference on Bird Protection
1910	8th International Congress of Zoology in Graz (Austria). Creation of a provisional committee to study the question of nature protection worldwide.
1923	First international non-governmental congress for the protection of nature (fauna, flora, natural monuments) in Paris

Source: EL KADIRI & MCHICH, 2021

2.2 The objectives of environmental taxation

The United Nations set the Sustainable Development Goals in 2015 to guide us on the path to a better, more sustainable future for all. The 17 Sustainable Development Goals include the challenges we all face today: poverty, inequality, climate disruption and environmental degradation, prosperity, peace and justice.

It also replaces the previous framework set by the Millennium Development Goals adopted in September 2000.

In addition to the "polluter pays" principle, there's the notion of a double dividend, which means that the introduction of an environmental tax system can result in the reduction of pollution damage. It derives directly from the incentive effect of the price signal on behavior, and is a collective gain derived from the environmental benefit through appropriate use of the budget revenues generated by the tax.

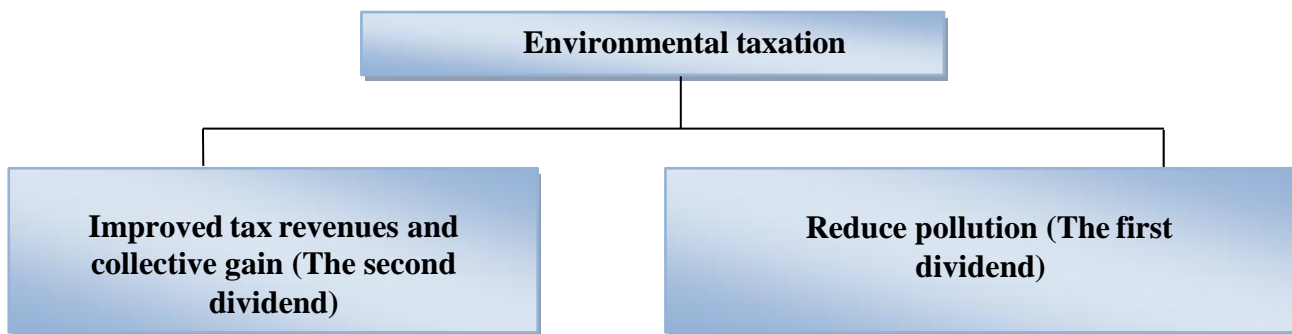


Fig. 3: The principle of a double dividend

3 Research methodology

In this context, we're going to take a look at the methodology used in this article. Consequently, the object of our research is part of a positivist epistemological vision whose aim is to analyze and explore an already existing reality. So, to identify the role of environmental taxation in environmental protection, our exploratory research, based on a literature review, has shown that.

There are several ways of collecting qualitative data. For our part, we proposed the investigative approach of documentary analysis. We felt that this technique was best suited to the requirements of our problem.

Our research methodology adopted is a descriptive exploratory methodology based on the technique of documentary analysis. This technique seemed to us to be the most appropriate for the requirements of our requirements.

Our problematic and our objective being to explain and understand the reality. What's more, as Wacheux (1996) states, interviews and documentation are "two indispensable sources when one is interested in actors, the organization and the behavior of actors in the organization". [2]

Documentary analysis requires an exhaustive literature search. In the context of this research, we have opted for exploratory data analysis using data from reports and studies,

4 Results and discussion

4.1 Moroccan environmental taxation: current situation

Environmental fiscal policy remains a priority instrument to be undertaken by public authorities on a national scale.

As we have seen, Pigou and other economists had already proposed the use of fiscal instruments to internalize the externalities that cause market failure, notably environmental externalities.

In this context, the use of fiscal instruments is an unavoidable option and a means of regulation. Among the regulatory instruments available, economists consider taxation to be the most economically efficient.

In this section, we will highlight Moroccan tax policy dedicated to environmental protection and the achievement of one of the goals of sustainable development.

The first and second paragraphs of Article 30 of Royal Decree no. 1.14.09 issued on March 06, 2014 in execution of Framework Law no. 99.12 as the national charter for the

environment and sustainable development, stipulated that "an environmental tax system was created consisting of ecological fees and tariffs imposed on activities characterized by high levels of pollution and consumption of natural resources".

However, the concept of environmental, green or ecological taxation has yet to appear in Morocco's General Tax code.

As well as being a tool for achieving economic, social and even cultural objectives, the tax serves to reduce environmental pollution and the depletion of natural resources.

Environmental taxation has many dimensions, including the economic, health and development dimensions.

4.2 The role of the moroccan tax system in environmental protection:

Morocco is striving to improve its governance indicators through a number of reforms and amendments, harnessing the tax system and making it effective in protecting the environment and reducing pollution as part of an effective environmental tax policy.

To this end, the Moroccan tax system provides for a number of taxes and levies dedicated to preserving the environment. By the way of example, we have tried to list these taxes according to the type of law and code that mentions them:

- Law n°07-20 amending and supplementing law n° 47.06 on local authority taxation
- General Tax Code (CGI)
- The Customs and Indirect Taxation Code (CDII)

As well as being a tool for achieving economic, social and even cultural objectives, the tax serves to reduce environmental pollution and the depletion of natural resources.

Environmental taxation has several roles, including the economic, health and development dimensions. We try to deal with each dimension separately:

- The economic role:

Taxes have an economic dimension represented in the prices of goods and services offered on the market, including environmental resources. The discharge of polluted waste into the air, water or soil is the type of use of these environmental resources within the factors of production, and the non-payment of the price for the use of these resources leads to their waste and non-production, a cause of environmental deterioration, and that the application of the polluter-pays principle reduces the causes of the costs of environmental pollution, then the prices of goods and services reflect the costs of their production, so that they become less competitive, providing an incentive for producers and consumers to choose more environmentally-friendly products.

- The health and development role:

Environmental taxation has a health and development dimension, since the application of this type of tax on various activities that pollute the environment guarantees a healthy life free of disease, given that health is part of human capital.

The polluter-payer has a developmental dimension, since economic development in various areas of life has been accompanied by significant technological progress in order to achieve economic development, including the exploitation of available resources in their various forms. Also, facilitating the use of primary resource extraction techniques developed to meet industrial demand and achieve prosperity.

Environmental taxation is also characterized by the immediate response of economic agents who cause pollution, in an attempt to control the rate of pollution and bring it down to the desired level.

5 Conclusions

Morocco is currently moving towards decarbonization of the economy, an objective pursued through reforms such as the national environment plan in light of the Sustainable Development Goals (SDGs) and in line with the guidelines of the National Sustainable Development Strategy, and the recommendations of the new development model, to ensure a comprehensive transition by 2030.

There can be no doubt that the adoption of environmental taxation will provide the various players involved with a set of guarantees that will help support protection capabilities, and define the responsibilities and rights of the parties involved, considering administrations as the main managers of efforts to develop and improve the environment, and control human behavior in relation to its environment, by monitoring, inspecting and controlling violations that constitute damage to the environment, and taking the necessary measures to preserve it : such as closing down the place of business, or treating waste harmful to it at the administration's expense, and setting standards and levels not to be exceeded for pollutants.

In this context, environmental taxation will be an asset that will accelerate the process of transition to a green economy.

The introduction of eco-taxes for public financing is also very important to provide sufficient resources for investment in green projects and the fight against climate change, not only as a direct financial resource, but also as a lever for sustainable development.

To activate the place of environmental taxation in the Moroccan tax system, a number of recommendations have been unveiled on various occasions and researched, notably at COP 22.

6 Acknowledgements

We would like to show our gratitude to the Salmane BOURKADI for sharing their pearls of wisdom with us during the course of this research, and we thank the reviewers for their insights. We are also immensely grateful the organising committee for the BOUZNIKA scientific visit event for their efforts, although any errors are our own and should not tarnish the reputations of these esteemed persons.

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