

Professional paper

UDK: 336.22

Paper received: 10/07/2023

Paper Accepted: 07/08/2023

GREEN TAXATION IN THE WESTERN BALKAN COUNTRIES

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ABSTRACT

Environmental taxation appeared as a reaction to the intense pollution of water, soil and air as a problem that has occupied humanity for centuries. The ultimate goal of green taxation is the protection of the environment and the prevention of environmental pollution, while its intense connection with economic growth and industrial activities of modern humanity can be observed. Green taxation is based on the Polluter-Pays Principle, which implies the requirement that the polluter must bear the costs of preventing, causing and controlling environmental pollution. The purpose of this article is to investigate the state, perspectives and problems of green taxation in the countries of the Western Balkans. While Bosnia and Herzegovina, Montenegro and North Macedonia have already made some significant steps towards the introduction of environmental taxation with the aim of accelerating their transition towards a green economy and faster adaptation to the announced Carbon Border Adjustment Mechanism (CBAM), Serbia and Albania are still significantly behind them. Due to the lack of key empirical data on green taxation, the rest of the article focuses on North Macedonia and Serbia, where energy taxes play the largest role in environmental taxation, followed by transport and pollution taxes. In North Macedonia, a stronger negative correlation between total environmental taxes and registered pollution is observed than in Serbia, indicating that Serbia should pay more attention to these issues if it wants to converge towards EU environmental standards. In the future, the Western Balkan countries will also need to pay much more attention to keeping green statistics, as well as to their general commitment to green issues and problems.

Keywords: *environmental taxation, green taxes, environmental pollution, Western Balkan countries (WBCs), Carbon Border Adjustment Mechanism (CBAM)*

1. INTRODUCTION

Environmental pollution is a process that has been going on for centuries. At the same time, this issue has only relatively recently been actualized and started to tickle human consciousness. Processes of environmental pollution date back to ancient times. Medieval cities were also congested by burning coal or transforming coal into coke for the purposes of iron smelting in industrial production. A little later, the 19th century will be remembered for the massive pollution of water and air, as well as urban areas contaminated by the accumulation of solid waste. However, with accelerated industrialization and industrial revolution processes, dramatic population growth and economic development, environmental pollution has grown into a unique global problem (Nathanson, 2023).

The first major environmental problems from the 1960s led to the introduction of the economic Polluter-Pays Principle in 1972 by the OECD. In this way, the OECD determined the methodological basis for „punishing“ environmentally irresponsible economic entities and for the introduction of environmental taxes in most of the then developed countries around the world. At the basis of this principle lies the idea that the polluter should cover the costs of the prevention, making and control of environmental pollution (OECD, 1992, p. 1). This approach is also one of the basic principles contained in national legislation, international regulations and public policies in the field of environmental protection of most contemporary countries. The principle is also included in the basic legal acts of the European Union (EU), while a prerequisite for its application is a state intervention in the field of environmental protection (Balaban & Stoiljković, 2023). During the last decade, economic instruments for the regulation of ecologically suitable behaviour gained an increasing role, especially in developed countries. In this context, the role of environmental taxes as supporting instruments of green reforms and green economic policies comes to the fore. Depending on their characteristics, environmental taxes support the Polluter-Pays Principle, influencing the increase of production costs and the price of goods and services that are proven to pollute the environment (the so-called price signals). These taxes contribute to the implementation of numerous policy objectives, which usually seek to balance competing objectives and interests. In addition, green taxes represent a good stimulus for the introduction of technological innovations, which should reduce further polluting emissions (OECD, 2023).

2. ENVIRONMENTAL TAXES AND THEIR EFFECTIVENES

There is no generally accepted definition of environmental taxes. The OECD states that environmental or green taxes are those taxes that are levied

on activities considered to cause damage and/or endanger the environment, while their goal is to encourage environmentally friendly behaviour through economic incentives. Environmental taxes address the problem of free market failures by taking into account specific negative and undesirable environmental effects and externalities (OECD, 2011, p. 1). On the other hand, Eurostat defines environmental tax as a tax whose base represents a physical unit of a certain activity (or its proxy indicator) that has a proven and specifically negative impact on the environment. At the same time, Eurostat distinguishes among four basic, broader categories of environmental taxes (Eurostat, 2023a): a) energy taxes, b) transport taxes, c) pollution taxes and d) resource taxes. In this way, green taxes also reflect the impact of the company's business operations on sustainable development, conservation of natural resources and environmental protection (Vićentijević & Petrović, 2018, p. 146).

In contrast to the past times, when environmental policy was mainly based on „command-and-control“ regulations, lately the interest of public environmental policies has become focused on market-based instruments such as taxes, environmental incentives, tax reliefs, patents and tradable emission permits. These instruments encourage the internalization of environmental pollution costs, that is, the approach of shifting these costs to polluters with the aim of reducing pollution to a socially acceptable level. In this way, environmental taxes provide economic incentives to individuals and legal entities with the aim of directing them to environmentally sustainable and socially acceptable activities (Mitić, 2018, p. 100). At the same time, practice has shown that environmental taxes are more effective than other market-based instruments for internalizing negative environmental externalities. An example of this is the carbon tax, which has proven to be the most effective instrument for curbing carbon emissions. In addition, Wolde-Rufael and Mulat-Weldemeskel (2023, p. 5211) also conclude that the strictness of environmental regulations, but also environmental, energy and transport taxes are very effective tools in suppressing harmful GHG emissions. The advantages of using environmental taxes are reflected in (OECD, 2011, pp. 2-3): a) dealing with the problem of market failures and negative environmental externalities; b) reducing environmental damage in a cost- and market-effective manner; c) continuous encouragement of economic actors to reduce harmful GHG emissions; d) improving competitiveness and availability of alternative solutions with lower GHG emissions; e) providing strong incentives for innovations; their transparency, and f) the predictability of environmental taxation costs from the perspective of consumers and companies.

However, despite their many advantages, the effectiveness of environmental taxes can sometimes be questioned. In the context of this analysis, their effectiveness means their ability to influence the reduction of harmful GHG emi-

ssions. Koval et al. (2022, pp. 3-4) emphasize that existing environmental taxes do not provide enough funds needed by the state to cover the all the costs of environmental protection. In addition, they are not always an effective means of changing the behaviour of taxpayers. At the same time, even the symbolic amount of the tax burden could not motivate the polluters to implement a more serious and thorough change of their technical equipment with the aim of developing green technologies. Due to the potentially negative impact of the tax burden growth on the investment and tax climate, the authors advocate for the development of a system of tax credits and reliefs that would encourage companies to invest in cleaner technologies. Moreover, the effectiveness of environmental taxes, as well as the encouragement of green innovations and the regulation of GHG emissions may also depend on the presence or absence of appropriate income redistributive mechanisms (Hashmi & Alam, 2019, pp. 1100-1109). Finally, environmental taxes also have some disadvantages such as an uncertain impact on the environment; lack of experience; administrative and enforcement costs; differences among various emission sources; political considerations; final effects of income distribution; polluters perception; vested interested and attitudes of polluters, etc. (Nagy, 2013, pp. 518-520).

3. ENVIRONMENTAL TAXES IN THE WESTERN BALKAN COUNTRIES

The transition from a carbon-based brown economy to a concept of green economy with low GHG emissions is a challenging issue for most Western Balkan countries (WBCs). In these otherwise underdeveloped countries, the challenges of the energy transition are all the greater if we take into account the fact that they face a deficit of fundamental resources such as knowledge, appropriate experience, advanced technologies, appropriate infrastructure, financial resources, public support and environmental awareness of the population. In the context of the environmental policy of the Western Balkan countries, the energy sector deserves special attention, which faces its dual challenges: a) the transition from centralized systems under state control to open and competitive markets, and b) the shift to a decarbonized, green economy. At the same time, the regional energy system has a key role in encouraging the economy of progress. Together with the improvement of energy efficiency and the increase of the share of renewable energy sources, it could grow into a driver of more intensive cooperation and greater regional security (Đorić, 2021, pp. 74-75). Finally, the region's energy intensity is still very high compared to the EU average, while its environmental policies are not supported enough by adequate systemic efforts and policy measures (Madžar, 2023).

Today, WBCs face pressure to introduce a carbon pricing system, both because of their at least apparent efforts to develop responsible environmental

policies, but also of the announced introduction of the European Carbon Border Adjustment Mechanism (CBAM). From 2026, the European Union (EU) plans to introduce CBAM on the import of industrially intensive polluting resources such as cement, steel, iron, artificial fertilizers, aluminium and electricity with the aim of preventing the risk of carbon leakage, preserving the atmosphere with low GHG density, as well as establishing a level playing field for the carbon pricing mechanism (Sato, 2022, p. 383). In this light, CBAM represents a kind of a tool for encouraging cleaner industrial production in non-EU members (European Commission, 2023), as well as a means to reduce carbon leakage by equalizing its price between non-EU and EU members (Deloitte, 2023). So far, most WBCs (Bosnia and Herzegovina, Montenegro and North Macedonia) have taken the first visible steps towards the introduction of CO₂ taxation system in order to accelerate their transition to a green economy, but also to avoid paying carbon tax on the import of the mentioned goods into the EU. However, unlike these countries, Albania and Serbia are still significantly lagging behind them in this field. The public energetic company Elektroprivreda of Bosnia and Herzegovina (B&H) already introduced an internal carbon pricing mechanism in January 2021, while these financial resources are intended only for investments in renewable energy sources. In addition, the B&H authorities have already prepared the appropriate legal framework for the introduction of the CO₂ taxes since 2006. The public energetic company Elektroprivreda of North Macedonia also announced the introduction of an internal CO₂ pricing mechanism in 2021, as well as the very certain introduction of CO₂ taxation system. However, the leader on this front in the region is Montenegro, which already introduced CO₂ taxation in 2020 in accordance with the European Emissions Trading Scheme (ETS) rules (Spasić, 2022).

Unlike these countries, Serbia has still a demanding path towards taxation of harmful GHG emissions. Although Serbia has proclaimed the EU membership as its strategic goal and although it is a signatory of the Paris Agreement on climate change, its current tax and other regulations still do not exert adequate pressure on the economy to reduce harmful GHG emissions. Nevertheless, CBAM, as well as regulatory and market mechanisms in the world, set new environmental rules that Serbian companies will have to adhere to in order not to lose competitiveness, access to foreign markets and business reputation. Companies from Serbia, within the scope of the three-year transition period, from October 1, 2023, will also be obliged to start reporting on the emissions contained in their aforementioned export products. Since the end of the EU transition period, importers of these products will be obliged to pay the mentioned carbon taxes. This will certainly mean the exposure of domestic companies to new indirect costs that may affect their competitiveness compared to products produced in the EU. All this implies the need to provide

assistance to the Serbian sector of small and medium-sized enterprises (SMEs) so that the local economy does not face serious obstacles in international business (Milosavljević & Šljivić, 2023).

Environmental taxation in Serbia is based on the collection of environmental fees and excise taxes. Although, according to the official systematization, they are classified as dedicated non-tax public revenues, environmental fees are more broadly considered a part of domestic environmental taxation policy. The current Law on Environmental Protection of the Republic of Serbia from 2016 makes a clear distinction among: a) fees for the use of natural resources, b) fees for environmental pollution and c) fees for the protection and improvement of the environment. On the other hand, excise taxes in Serbia in the context of environmental protection include: a) excise taxes on oil derivatives, b) excise taxes on biofuels and bioliquids, and c) excise taxes on the final consumption of electricity. Of all the mentioned excise duties, the largest fiscal role is played by the excise taxes on oil derivatives since they show a highest share of all environmental taxes in the total budget revenues (Mitić, 2018, pp. 110-111). On the other hand, North Macedonia continues with the implementation of its environmental tax and regulations reform. The legislation of this country also recognizes the difference between energy taxes, transport taxes, pollution taxes and resource taxes (State Statistical Office of the Republic of North Macedonia, 2022).

Due to the lack of relevant empirical data, the following Table 1 gives a cross-section of the state of the most important categories of environmental taxes only in North Macedonia and Serbia for 2019. This is another proof that environmental taxation in the Western Balkan countries has been neglected and is still in its infancy, as well as that the region should work more seriously on the inclusion, coverage and monitoring of green statistical data.

Table 1. Environmentally related taxes by economic activity in North Macedonia and Serbia for 2019

	Total environmental taxes (in € millions)	Environmental taxes (total amount and the share of total environmental taxes)				Share of GDP
		Energy taxes	Transport taxes	Pollution taxes	Resource taxes	
North Macedonia	281.07	200.24 (71.25%)	78.15 (27.8%)	2.68 (0.95%)	0	2.50%
Serbia	1898.27	1630.69 (85.9%)	133.97 (7.06%)	105.7 (5.57%)	27.91 (1.47%)	4.13%

Source: Eurostat, 2023b

As can be seen from the previous table, in Serbia and North Macedonia, energy taxes occupy the most important place in total environmental taxes, followed by transport and pollution taxes. On the other hand, it seems that

taxes on the use of public natural resources have been completely neglected, increasing the opportunities for earning and boosting capital incomes (Hope & Limberg, 2022, p. 542) of mostly foreign concessionaires, but also pointing to the danger of excessive and rapid exploitation of mineral ores and natural resources. It is also observed that transport and pollution taxes could be higher with the aim of preventing the undesired polluting behaviour of industrial and other producers. However, the total environmental taxes in the observed countries still occupy a more significant place in their GDP, bearing in mind the fact that in 2021 EU environmental tax revenues accounted for 2.2% of EU GDP (Eurostat Statistics Explained, 2023).

In the the continuation of the article, a correlation analysis of the relationship between total environmental taxes and registered pollution in North Macedonia and Serbia was carried out. The analysis was conducted on the basis of available data for both countries in the period from 2010 to 2019, the results of which are presented in Table 2.

Table 2. Results of the correlation analysis between total environmental taxes and CO₂ emissions in North Macedonia and Serbia, in the period from 2010 to 2019

	Total environmental taxes in North Macedonia	CO ₂ emissions in North Macedonia		Total environmental taxes in Serbia	CO ₂ emissions in Serbia
Total environmental taxes in North Macedonia	1	-0.39	Total environmental taxes in Serbia	1	-0.10
CO ₂ emissions in North Macedonia	-0.39	1	CO ₂ emissions in Serbia	-0.10	1

Source: Eurostat, 2023c & World Bank Data, 2023

Table 2 shows a stronger negative correlation between the observed variables in the magnitude of $r = -0.39$, suggesting the conclusion that the growth of environmental taxation could indeed lead to a reduction of harmful gas emissions in North Macedonia. On the other hand, in the case of Serbia, this relationship is significantly weaker and amounts to $r = -0.10$, indicating that the growth of environmental taxation does not lead to an excessive reduction of pollution and leaving enough room for policy makers for additional interventions in this area. The objective limitation of this study refers to the lack of elementary statistical empirical indicators on environmental taxation in Albania, B&H and Montenegro. Despite this, the article gives some useful insight into the state of environmental taxation in the countries of the Western

Balkans, with the conclusion that these countries would have to work a lot on their green statistics, as well as on their general commitment to green issues.

4. CONCLUSION

Available literatures sources, and to an even greater extent empirical data on environmental taxation in the countries of the Western Balkans are modest, sporadic and very limited. It should be noted here that this research used only data from the Eurostat database as the most relevant source considering the fact that it is about countries that are official candidates for EU membership. This is actually not surprising considering that the Western Balkan region lags far behind world and EU averages in many of its indicators. However, despite this, the dominant share of energy taxes in total environmental taxes is observed, followed by transport and pollution taxes, respectively. The analysis also shows the extremely symbolic participation of resource taxes (in the case of Serbia), as well as their complete absence in the case of North Macedonia during 2019. The mentioned conclusions suggest that certainly the last three environmental tax forms should be gradually increased in the structure of the total environmental taxes of the Western Balkan countries. In this way, regional governments could stand in the way of the polluting and destructive behaviour of producers and other economic actors, especially in the transport, industrial and mining sectors. On the other hand, the findings clearly show that there is a stronger negative relationship between total environmental taxes and CO₂ emissions in North Macedonia than in Serbia. From this comes the conclusion that the creators of environmental policies and strategies in Serbia should pay much more attention to these burning issues, in their attempts to reduce harmful GHG emissions and thus bring the country closer to EU environmental standards.

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ZELENO OPOREZIVANJE U ZEMLJAMA ZAPADNOG BALKANA

SAŽETAK RADA

Ekološko oporezivanje je nastalo kao reakcija na intenzivno zagađenje vode, tla i zraka, što su problemi koji već stoljećima zaokupljaju čovječanstvo. Krajnji cilj zelenog oporezivanja jest zaštita životne sredine i sprečavanje ekološkog zagađenja, dok se uočava njegova snažna veza s gospodarskim rastom i industrijskim aktivnostima suvremenog društva. Zeleno oporezivanje se temelji na principu "zagađivač plaća", prema kojem se zahtijeva da zagađivač snosi troškove prevencije, djelovanja i kontrole zagađenja životne sredine. Svrha ovog članka je istražiti stanje, perspektive i probleme zelenog oporezivanja u zemljama Zapadnog Balkana. Dok su Bosna i Hercegovina, Crna Gora i Sjeverna Makedonija već napravile značajne korake u uvođenju ekološkog oporezivanja kako bi ubrzale svoju tranziciju prema zelenoj ekonomiji i brže se prilagodile najavljenom Mehanizmu za prekogranično prilagođavanje ugljiku, Srbija i Albanija i dalje znatno zaostaju za njima. Zbog nedostatka ključnih empirijskih podataka o zelenom oporezivanju, ostatak članka usmjerava se na Sjevernu Makedoniju i Srbiju, gdje energetske porezi igraju najvažniju ulogu u ekološkom oporezivanju, a zatim slijede porezi na prijevoz i porezi na zagađenje. U Sjevernoj Makedoniji se primjećuje jača negativna korelacija između ukupnih ekoloških poreza i registriranog zagađenja nego u Srbiji, što ukazuje i na to da bi Srbija trebala posvetiti veću pažnju ovim pitanjima ako želi konvergirati prema ekološkim standardima EU. Zemlje Zapadnog Balkana će također morati posvetiti puno veću pažnju vođenju zelenih statističkih podataka, kao i svojoj općoj posvećenosti zelenim pitanjima i problemima.

***Ključne riječi:** ekološko oporezivanje, zeleni porezi, ekološka zagađenja, zemlje Zapadnog Balkana, Mehanizam za prekogranično prilagođavanje ugljenika*