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THE CURRENT STATE OF ENVIRONMENTAL TAXATION IN UKRAINE

Natalia MOCANU,

Moldova State University

Olena NOVYTSKA, Marharyta DAVYDENKO,

The State Tax University, Irpin city, Kyiv region, Ukraine

The foundational principles of environmental taxation, serving as a cornerstone for driving sustainable development, have been further elaborated upon. It has been ascertained that the current environmental tax framework in Ukraine is not effectively fulfilling its intended roles of incentivizing environmentally responsible practices and providing compensation for environmental impacts. Additionally, the business community frequently perceives tax hikes as nothing more than an additional fiscal burden. In light of these findings, a set of recommendations has been formulated to enhance the efficacy of environmental taxation in its capacity as a catalyst for sustainable development, drawing inspiration from best practices observed internationally.

These proposed enhancements encompass a range of strategies. They include refining the conceptual framework of the environmental tax, particularly with regards to CO₂ emissions, and modernizing other categories of environmental taxation. Another vital suggestion involves adjusting the allocation proportions of tax revenues from environmental taxation among various levels of government budgets. This adjustment seeks to foster a more consistent and coordinated approach to environmental tax policy. Moreover, there is an emphasis on optimizing the utilization of tax revenues generated from environmental taxation, alongside the reinforcement of comprehensive compliance monitoring and the introduction of a stimulus system geared towards facilitating a gradual shift towards a carbon-free economy.

Implementation of these recommendations holds the potential to elevate environmental consciousness and overall tax effectiveness in Ukraine. This, in turn, can attract businesses to invest in environmentally friendly technologies and production processes. In the long term, these initiatives aim to stimulate the ecological transformation of businesses and instill a culture of responsible energy resource utilization. Such efforts are poised to contribute to the gradual transition of the economy towards sustainability, fostering innovation in the post-war era while taking into account the interests of all stakeholders involved.

Keywords: *environmental taxation, emissions, tax revenues, carbon-free economy.*

SITUAȚIA ACTUALĂ A TAXELOR DE MEDIU ÎN UCRAINA

Principiile fundamentale ale impozitării mediului, care servesc drept piatră de temelie pentru stimularea dezvoltării durabile, au fost dezvoltate în continuare. S-a constatat că actualul cadru fiscal de mediu din Ucraina nu își îndeplinește în mod eficient rolurile pe care le are în vedere, și anume acela de a stimula practicile responsabile din punct de vedere ecologic și de a oferi compensații pentru impactul asupra mediului. În plus, comunitatea de afaceri percepe frecvent creșterile de taxe ca fiind nimic mai mult decât o povară fiscală suplimentară. Având în vedere aceste constatări, a fost formulat un set de recomandări pentru a spori eficacitatea impozitării mediului în calitate sa de catalizator pentru dezvoltarea durabilă, inspirându-se din cele mai bune practici observate la nivel internațional.

Aceste îmbunătățiri propuse cuprind o serie de strategii. Acestea includ perfecționarea cadrului conceptual al taxei de mediu, în special în ceea ce privește emisiile de CO₂, și modernizarea altor categorii de taxe de mediu. O altă sugestie vitală implică ajustarea proporțiilor de alocare a veniturilor fiscale provenite din taxele de mediu între diferitele niveluri ale bugetelor guvernamentale. Această ajustare urmărește să încurajeze o abordare mai coerentă și mai coordonată a politicii fiscale de mediu. În plus, se pune accentul pe optimizarea utilizării veniturilor fiscale generate de impozitarea mediului, alături de consolidarea unei monitorizări cuprinzătoare a conformității și introducerea unui sistem de stimulare orientat spre facilitarea unei treceri treptate către o economie fără emisii de dioxid de carbon.

Punerea în aplicare a acestor recomandări are potențialul de a crește gradul de conștientizare a problemelor de mediu și eficiența fiscală generală în Ucraina. Aceasta, la rândul său, poate atrage întreprinderile să investească în tehnologii și procese de producție ecologice. Pe termen lung, aceste inițiative au ca scop stimularea transformării

ecologice a întreprinderilor și insuflarea unei culturi de utilizare responsabilă a resurselor energetice. Astfel de eforturi sunt pregătite să contribuie la tranziția treptată a economiei către sustenabilitate, încurajând inovarea în epoca postbelică, ținând cont în același timp de interesele tuturor părților interesate implicate.

Cuvinte-cheie: *taxare de mediu, emisii, venituri fiscale, economie fără carbon.*

Introduction

The significance of effective environmental taxation cannot be overstated. It not only discourages environmentally harmful practices but also paves the way for the development of innovative, eco-friendly technologies and promotes sound decision-making. Companies that choose to invest in research and development geared towards sustainable manufacturing gain a competitive edge in today's rapidly evolving market.

Moreover, environmental taxation plays a crucial role in reshaping consumer behavior. By imposing taxes on activities and products that have a negative impact on the environment, it redirects consumers towards more eco-conscious choices. This not only reduces the overall environmental footprint but also promotes a shift in societal values towards responsible consumption.

It is important to underscore that the consequences of these hostilities extend beyond the immediate environmental damage. The reverberations are felt in the long-term restoration of natural resources and the preservation of biodiversity [1]. The widespread detonations and shelling have inflicted considerable harm on forests, agricultural lands, and other natural areas, disrupting delicate ecosystems and leaving behind a trail of environmental contamination, including military equipment waste, fuel, lubricants, and other harmful substances. The persistent degradation of the environment carries the potential for far-reaching implications, both for the natural world and the well-being of the populace.

Materials and methodology

The study's methodology draws upon foundational concepts, approaches, and principles from economic theory, tax theory, as well as insights from prominent scholars in both domestic and international contexts concerning environmental tax administration issues. Additionally, it relies on the legislative and regulatory framework established in Ukraine for environmental taxation, along with data sourced from the State Treasury Service of Ukraine and the State Tax Service of Ukraine.

The objective of this article is to conduct an examination of the current status of environmental taxation within Ukraine. This includes a comprehensive investigation into its regulatory role in the preservation of the natural environment. Furthermore, the study aims to formulate effective strategies and measures to enhance the efficiency of environmental taxation practices in Ukraine.

Analysis of recent research

In light of these pressing environmental concerns, the relevance of addressing them through the lens of environmental taxation becomes increasingly evident. Environmental taxation emerges as a potent instrument to incentivize sustainable development, safeguard precious natural resources, and secure the planet's viability for generations to come. It is through the strategic application of environmental taxation that we can foster positive change and mitigate the far-reaching ecological consequences of armed conflict.

The topics related to the payment for the utilization of natural resources, specifically environmental taxation, as well as the identification and categorization of users, and the promotion of more efficient natural resource utilization, have been explored by eminent scholars such as G. Bell, O. H. Brownlee, R. E. Wagner, P. Richardson, A. Pigou, and other luminaries in the field of economic theory. Additionally, distinguished scientists like M. I. Bublik, B. M. Danylyshyn, V. S. Mishchenko, S. V. Mochernyi, M. A. Hvesyk, and numerous others have made significant contributions to the study of environmental issues.

Nevertheless, despite the substantial body of research in this area, Ukraine continues to grapple with an unsatisfactory technogenic and ecological situation. This ongoing challenge has impeded the progress of Ukraine's economic system. Furthermore, the current economic climate in Ukraine, characterized by the persisting political crisis in the country, underscores the immediate need for further research focused on enhancing Ukraine's taxation system, particularly in the context of environmental sustainability.

According to the findings presented in [3], environmental taxation emerges as a vital instrument within the purview of state policy. It is effectively wielded to incentivize enterprises to embark on a transformative journey towards sustainable and environmentally responsible practices. The research conducted in [3] unveils a compelling correlation between environmental tax legislation and the enhancement of ESG (Environmental, Social, and Governance) indicators for enterprises that are major contributors to environmental pollution. However, it's worth noting that this correlation was not substantiated for enterprises with a lesser environmental footprint.

Furthermore, [4] underscores the imperative of reengineering state support mechanisms within the agricultural sector. The crux of this restructuring lies in the strategic integration of digital technologies into agricultural practices. Such a shift not only fosters sustainable development but also augments the overall efficiency of the agricultural sector. As an added benefit, this modernization reduces the reliance on state support, signifying a progressive step towards self-sufficiency and resilience within the agricultural domain.

While investigating strategies for promoting sustainable development through improved natural resource management, many scholars concur that environmental taxation, along with payments for environmental pollution and the utilization of environmental services, represents a pivotal instrument for encouraging the reduction of harmful emissions and directing economic activities toward environmentally sound objectives [5]. These methods of administrative and market regulation, particularly in the context of investment and innovation, hold substantial promise for regional development within the framework of decentralization in public administration in Ukraine.

In conclusion, the exploration of environmental taxation and related mechanisms as drivers of sustainable development remains a pressing and pertinent area of study, especially given Ukraine's complex economic and ecological challenges. The integration of effective environmental taxation policies can play a pivotal role in fostering a greener and more resilient economic future for the nation.

Results and discussions

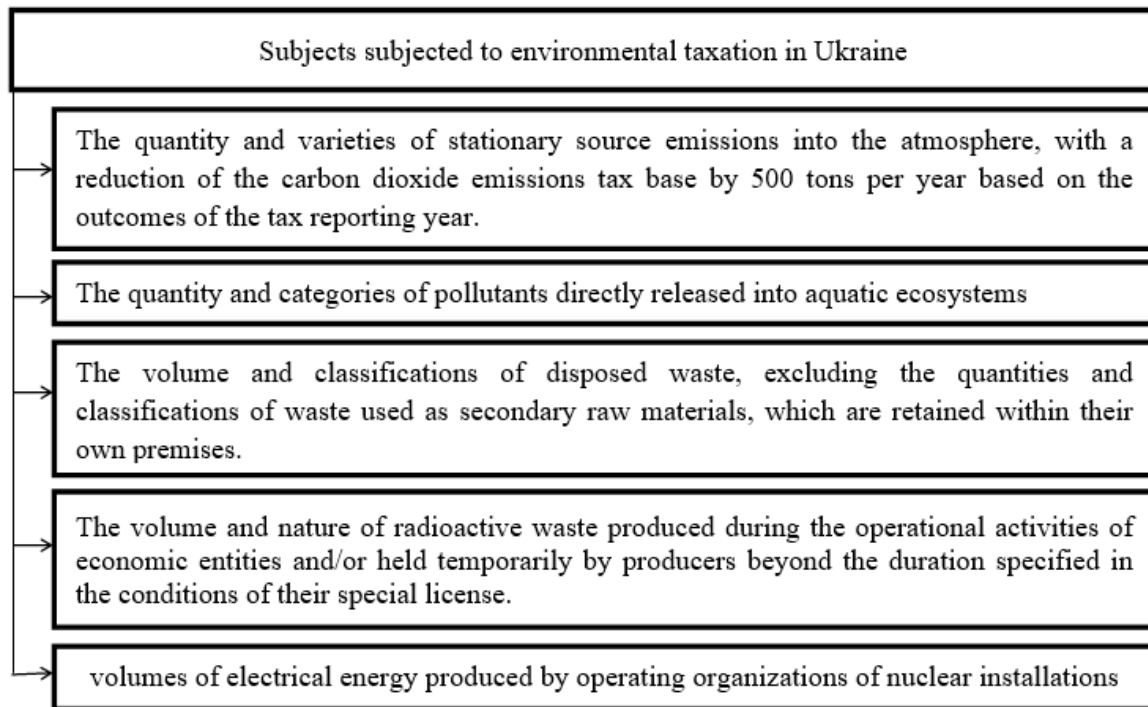
The current ecological challenges facing our world today demand not only heightened attention but also a strong commitment to responsible action from the government. It is imperative that measures are taken to minimize the detrimental impact on our environment while simultaneously supporting sustainable economic development. Within the government's arsenal of tools, one instrument stands out as particularly significant – the effective utilization of environmental taxation.

Environmental taxation, in essence, represents a compulsory financial contribution imposed by the state. This tax is levied based on various parameters, including registered emissions released into the atmosphere, the discharge of pollutants into water bodies, waste disposal practices, the actual volume of temporary storage of radioactive waste by producers, and the generation and accumulation of radioactive waste by April 1, 2009 [2]. It serves as a mechanism to both regulate and incentivize environmentally responsible behavior across various sectors.

When we examine international practices, it becomes apparent that the application of environmental tax in Ukraine possesses distinct characteristics. Depending on the physical nature of the subject being taxed, these objects are categorized into five distinct groups. Each category is subject to specific tax rates and requirements, tailored to address the unique environmental challenges posed by different industries and activities.

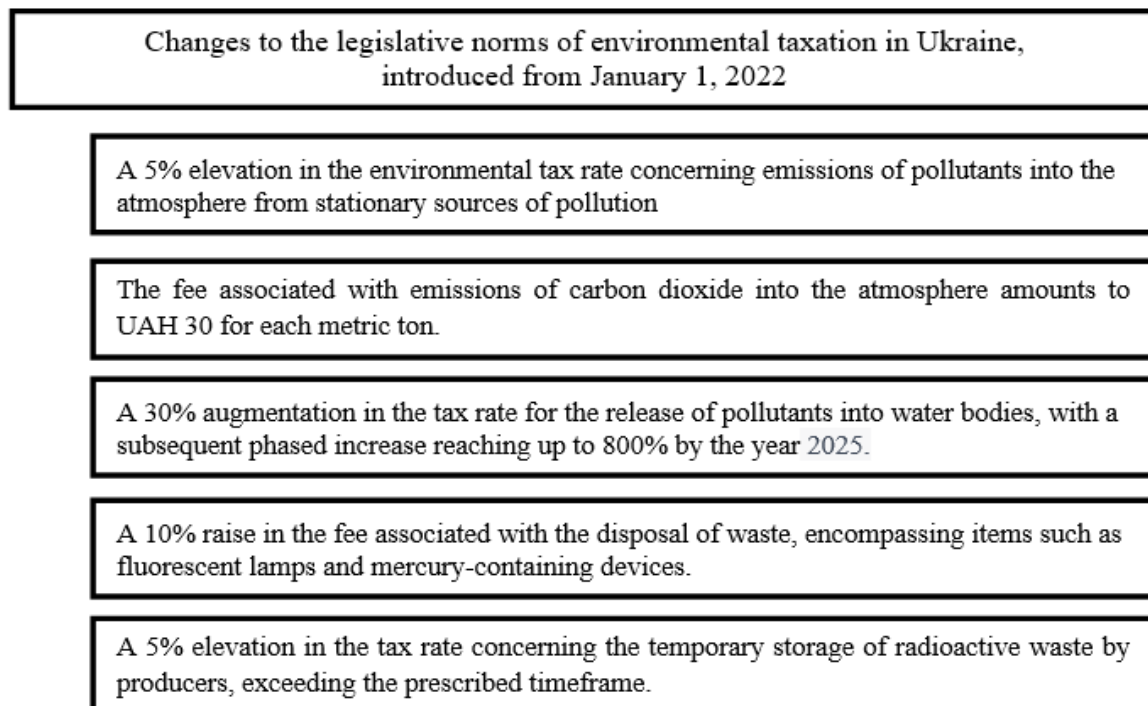
The effective implementation of environmental taxation in Ukraine serves a multifaceted purpose. Firstly, it acts as a financial incentive for businesses and individuals to adopt environmentally friendly practices, thereby reducing their environmental footprint. Secondly, the revenue generated through environmental taxation can be directed towards financing vital environmental projects and initiatives, furthering the cause of sustainability. Lastly, it reinforces the government's commitment to ecological preservation and underscores the importance of individual and corporate responsibility in our shared efforts to protect the environment.

Regarding international norms and practices, the utilization of environmental taxation in Ukraine exhibits its distinct characteristics (Figure 1).

Fig. 1. The complex of objects subject to environmental tax in Ukraine.

Source: presented by the authors based on [2].

When conducting business activities that result in diverse environmental pollution or the emission of various pollutants, it is incumbent upon the business entity to calculate distinct tax amounts for each form of pollution or each specific pollutant. Notably, as of January 1, 2022, amendments have been introduced to the legislative regulations governing environmental taxation [2] (as depicted in Figure 2).

Fig. 2. Adjustment of legislative norms in the field of environmental taxation in Ukraine.

Source: summarized by the authors based on [2].

The intent behind the planned increase in environmental tax rates was to exert influence on the economic activities of businesses, with the overarching goal of mitigating adverse impacts, safeguarding the environment, and incentivizing pollution reduction. Regrettably, the current reality presents a stark contrast. At present, the environmental tax is not effectively fulfilling its roles of stimulation and compensation. Instead, it is frequently perceived by the business community as an added financial burden.

Furthermore, it is evident that the generated tax revenues from environmental taxation in Ukraine are notably insufficient to finance essential environmental protection initiatives. As a consequence, the environmental tax's share within the framework of the Consolidated Budget of Ukraine, spanning from 2012 to 2021, remains minimal, never exceeding 1.4%. What's more, this proportion exhibits a declining trend.

Table 1. Share of environmental tax in the consolidated budget revenues of Ukraine.

Years	Consolidated budget revenues, in total, UAH million	Including			
		Environmental tax revenues		Including those related to harmful impact on the atmosphere	
		UAH million	% of consolidated budget revenues	UAH million	% of consolidated budget revenues
2012	445525	2816.0	0.63	1547	0.35
2013	442789	3899.5	0.89	2433	0.55
2014	456067	4830.9	1.06	3174	0.70
2015	652031	2691.0	0.41	1185	0.18
2016	782860	4987	0.63	3132	0.40
2017	1009821	4698	0.47	2563	0.25
2018	1184291	4922	0.42	2581	0.22
2019	1289849	6093	0.47	3611	0.28
2020	1376674	5398	0.39	3045	0.22
2021	1662243	5436	0.33	2073	0.12

Source: built by the authors on the basis of data [2]

In contrast, it is noteworthy that in many European countries, the environmental tax effectively serves a compensatory function. This entails that the tax revenue substantially surpasses government expenditures on environmental protection endeavors. Additionally, in most European nations, the environmental tax concurrently fulfills a fiscal role, contributing up to 10% of total tax revenue.

The economic nature of any tax is demonstrated through the execution of two primary functions: regulatory and fiscal [6]. In the context of the environmental tax, the regulatory function finds expression through its capacity to incentivize reductions in pollutant emissions. Conversely, when considering the fiscal aspect of this tax, its role is relatively minor due to its limited contribution to overall budgetary revenues.

Therefore, to assess the effectiveness of environmental taxation in Ukraine, it becomes imperative to examine the trends in pollutant emissions. In this context, the focus lies primarily on the regulatory function, as it assumes paramount importance for this tax.

Table 2. Trends in Pollutant Emissions into the Atmosphere from 2016 to 2021, thousand tons.

Type of pollutant	Year						2021 in% to 2016
	2016	2017	2018	2019	2020	2021	
Sulfur dioxide (SO ₂)	1094,0	744,4	716,7	695,8	619,2	595,3	79,97
stationary sources	1076,4	726,2	698,1	676,0	601,0	575,7	79,28
mobile sources	17,6	18,2	18,6	19,8	18,2	19,6	107,69

Nitrogen oxides (NO ₂)	404,5	384,3	385,7	383,9	343,1	348,4	90,66
stationary sources	240,2	215,5	215,3	205,1	181,3	174,0	80,74
mobile sources	164,3	168,8	170,4	178,8	161,8	174,4	103,32
Non-methane volatile boundary compounds	222,8	223,6	206,5	205,1	182,3	195,2	87,30
stationary sources	52,2	53,1	43,7	42,5	40,6	40,1	75,52
mobile sources	170,6	170,5	162,8	162,6	141,7	155,1	90,97
Carbon monoxide (CO)	2029,9	1986,9	1974,9	2003,6	1792,0	1869,2	94,08
stationary sources	802,8	728,4	744,3	748,4	707,3	704,3	96,69
mobile sources	1227,1	1258,5	1230,6	1255,2	1084,7	1164,9	92,56

Source: built by the authors on the basis of data [2]

The analyses conducted on the fluctuations in pollutant discharges unmistakably illustrate the limited effectiveness of the environmental tax system in Ukraine as a whole. The marginal decline in the release of pollutants can primarily be attributed to the contraction of aggregate industrial production within Ukraine, rather than any substantial influence exerted by environmental taxation in general. Specifically, there is a minor reduction in emissions stemming from stationary sources of pollution. Conversely, emissions of nitrogen oxide have increased by 3.32%, while sulfur dioxide emissions have surged by 7.7% from mobile sources. These trends underscore the insufficient impact of the aforementioned tax on the overall ecological landscape of the country.

In 2021, environmental taxes accounted for a mere 0.33% of Ukraine's GDP. This figure is notably lower compared to EU member states. However, it's important to note that Ukraine grapples with high energy intensity and extensive carbon utilization in the energy sector. This can be attributed to various factors, including the outdated nature of certain technologies, the absence of energy-efficient solutions, and the substantial production and utilization of coal in thermal power plants.

Conclusion

The primary objective of the environmental taxation system is to incentivize responsible and sustainable utilization of natural resources. Environmental taxation serves as a potent instrument for the effective execution of national environmental policies. However, despite its crucial role, it presently falls short as an efficient and impactful regulatory tool. Regrettably, there is a noticeable absence of substantial positive developments in both ecological and economic indicators within Ukraine.

One of the core reasons for the inefficiency of the environmental tax management system in Ukraine lies in the absence of a well-structured model. This deficiency is primarily attributed to inconsistencies in the mechanism and the distribution proportions of environmental tax revenues among various levels of government budgets. Additionally, the state budget grapples with a significant deficit, rendering it unable to utilize the financial resources generated through environmental taxes for environmental projects. These funds predominantly accumulate within the revenue section of the general budget, earmarked for addressing other pressing socio-economic challenges.

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Date about authors:

Natalia MOCANU, Moldova State University.

E-mail: davidenk@ukr.net

ORCID: 0000-0002-8523-1080

Olena NOVYTSKA, the State Tax University, Irpin city, Kyiv region, Ukraine.

E-mail: elena.novickaja@gmail.com

ORCID: 0000-0001-6451-7808

Marharyta DAVYDENKO, the State Tax University, Irpin city, Kyiv region, Ukraine.

ORCID: 0009-0000-4186-3556

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