

# THE PLACE AND ROLE OF ENVIRONMENTAL TAXES IN THE HUNGARIAN, SLOVAK AND CZECH TAX SYSTEMS

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**ABSTRACT:** *The present paper aims to review the issue of environmental taxation in three Central European countries, namely Hungary, Slovakia, and the Czech Republic. The examination of these countries is of a particular importance, as they share similar historical backgrounds and have all experienced environmental damage caused by large companies of the socialist era recently. Additionally, these countries are facing new environmental challenges due to re-industrialization. Therefore, it is worth examining the legal solutions each country applies in this area, whether they have well-established and crystallized regulations, and to what extent the legislator is concerned about the issue of environmental taxation.*

**KEYWORDS:** *environmental taxes; tax system; Hungary; Slovakia; the Czech Republic*  
**JEL Code:** *K34*

## 1. INTRODUCTORY REMARKS

The growing environmental and socio-economic issues have made environmental policy increasingly crucial. While society typically responds to emerging problems through regulatory tools, it remains to be seen whether these solutions are appropriate for addressing these specific issues. In order to exert a significant impact on society, one can employ various avenues such as politics, the economy, religion, education, and the media. The law plays a crucial role within the political and economic regulation realm, as it establishes institutional frameworks that enable and enforce the desired outcomes in these spheres (Kerényi, 2003; “Cf.” Raisz, 2012).

To develop an effective environmental policy, four important general principles shall be considered. Firstly, environmental problems affect all disciplines and must be reflected in all professional activities and institutional structures. Secondly, environmental policy is a long-term policy requiring strategic decisions in all sectors. Thirdly, local interests must

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be subordinated to higher regional and global interests. Finally, environmental policies in different countries need to be coordinated on a state level (Kerényi, 2003).

The scientific literature defines the essence and types of environmental policies, summarizing the objectives, principles, and implementation conditions formulated to protect the environment (Szlávik, 2005). Environmental policy types vary depending on the nature of the tasks and goals to be achieved, including remedial, impact-oriented, resource-oriented, structural change-oriented, and preventive environmental policies.<sup>1</sup>

It should be emphasized that the objective of remedial environmental policy is to mitigate environmental damage. Generally, this environmental policy is the most expensive and least effective solution. It is not always applicable since irreversible environmental damage may only be reduced but not permanently resolved (Nagy, 2012).

The impact-oriented environmental policy aims to improve environmental quality in cases where harmful emissions do not decrease. Reducing the harmful effects also reduces the economic impact of environmental pollution (for example, removing polluting activities from the vicinity of those affected by the pollution) (Nagy, 2012).

Source-oriented environmental policy is the most widely used environmental policy aimed at reducing harmful emissions. They can achieve remarkable results in reducing polluting emissions but require increased monitoring and sanctioning activities by the authorities to maintain continuous emission reductions. One disadvantage is that it can be circumvented, and pollution may shift from one source to another. However, source-oriented environmental policy can be an essential tool in promoting recycling (Nagy, 2013).

Moreover, the literature identifies structural and preventive environmental policies as the most positive, guiding society and the economy towards environmentally friendly activities and technologies. In this case, the goal is to achieve sustainable development. The issue of environmental taxation plays an important role in the development of this type of environmental policy (Nagy, 2012).

Regarding the term “environmental taxes”, it is worth noticing that this term is broadly understood and does not include only taxes in the traditional sense, but also, fees, duties and other public charges, i.e., any obligation to pay that has impact on the environment. In a narrower sense, eco-taxes include only direct environmental charges. It is, therefore, clear that the legal theory is not consistent in its use of different concepts and does not primarily group and typify the system from a financial law perspective but from an economic and environmental law perspective. In the scientific literature, there is a view that defines the method of charges and instruments that have the character of taxes based on the OECD recommendation. It does not systematically distinguish between charges and taxes from an environmental point of view. Charges are considered instruments with specific environmental goals, whereas taxes and duties are considered general public economic policy instruments that serve environmental purposes as a secondary function. Therefore, only charges are explicitly classified by this view (Nagy, 2013).

Concerning this, it is worth reviewing what legal solutions each country applies in this area. In light of the above-mentioned, the present paper aims to provide a general and comprehensive overview of the environmental taxes in the examined countries.

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<sup>1</sup> The other type of approach to environmental policy is the extensive or intensive environmental protection approach. See Szlávik, 2005, 205–208.

## 2. ENVIRONMENTAL TAXES IN HUNGARY

The instrumental economic regulation system is complex; various literature classifies and typifies instruments differently. However, the legislation does not provide a consistent method for classifying instruments. The Act LIII of 1995 on the General Rules on Environmental Protection<sup>2</sup> (hereinafter referred to as the Environmental Protection Act) does not classify economic instruments in a systematic way and needs to provide a clear explanation of their role. These instruments include subsidies (*támogatások*), environmental use tax (*környezethasználat után fizetendő díjak*), procedural costs and fees (*eljárási költségek és díjak*), insurance and surety (*biztosítékok, illetve biztosítás*), and environmental fine (*környezetvédelmi bírság*) (Bándi, 2011).

The regulation of economic subsidies is a complex system involving various tools categorized differently in literature. Legal regulations, including the Environmental Protection Act, must establish a consistent method for classifying these tools. The Environmental Protection Act requires systematising the economic tools and providing a systematic explanation of their role, which includes subsidies, fees for environmental use, procedural costs and fees, guarantees, insurance, and environmental fines. Furthermore, the regulation covers both direct and indirect subsidies. Indirect subsidies refer to the system of tax, customs, and duty exemptions. At the same time, direct financial support may come from the two sub-systems of the national budget and the local government budget. The law emphasises providing resources for environmental tasks through central budgetary support.<sup>3</sup> It is important to note that the central budget creates separate appropriations for some environmental objectives. The appropriations aim to encourage the development of an environmentally friendly economic structure, prevent, and reduce environmental damage, eliminate environmental damage, maintain natural values and areas, and promote environmental research.<sup>4</sup>

The effective use of subsidies can be achieved by prescribing certain basic requirements. The literature considers such basic needs to be the indication of sources, the determination of the purpose of use, the method of support (tendering), the decision-making bodies for the evaluation of applications, the conditions for requesting subsidies, the decision-making procedure, the agreement on subsidies, the possibility of social participation, control of use, and the legal consequences of abuse (Bándi, 2011).

The Environmental Protection Act considers fees paid for the use of the environment as sources of funding for measures that reduce environmental impact. The act defines four types of fees: pollution charges (*környezetterhelési díjak*), utilisation fees (*igénybevételi járulékok*), product charges (*termékdíjak*), and deposit fees (*betétdíjak*).<sup>5</sup> It is important to emphasize that the law regulates the system in a framework manner, and detailed rules can be found in different laws. The law does not deal with taxes and fees, which are also regulated by separate laws, and does not systematically place the system within the framework of economic fundamentals. It is worth mentioning that the legislation only deals with tax, customs and duty exemptions (*adó-, vám- és illetékedvezmények*).<sup>6</sup>

<sup>2</sup> 1995. évi LIII. törvény a környezet védelmének általános szabályairól.

<sup>3</sup> Environmental Protection Act, Section 56.

<sup>4</sup> Environmental Protection Act, Section 57.

<sup>5</sup> Environmental Protection Act, Section 59.

<sup>6</sup> Environmental Protection Act, Section 56(3).

The law pays particular importance to fees (*díjak*) among economic instruments. The legislator provides general principles for determining fees: a) incentivising character: fees must be set at a level that encourages the environmental user to reduce environmental use and impact; b) coordination and gradual introduction: the legislator requires that fees be gradually introduced over time and amount and that the purpose and extent of their use be coordinated with the interest representatives of the fee payers; c) determination of the purpose and method of use: it places the protection of environmental elements before fiscal considerations, as the law states that the majority of fees must be used to reduce environmental impact and use.<sup>7</sup>

The environmental user (*környezethasználó*) is obligated to pay an ecological pollution charge for the environmental pollution caused. The law may determine this fee for such substances and types of energy that have applicable measurement standards, and the emission level is technologically determinable. The legislator does not establish detailed rules for environmental protection in the Environmental Protection Act; these rules are defined in separate laws. The detailed regulations separate three types of environmental pollution charges: air pollution charge (*levegőterhelési díj*), water pollution charge (*vízterhelési díj*), and soil pollution charge (*talajterhelési díj*).<sup>8</sup>

Environmental users must pay the utilization fee for certain ways of using a component of the environment. The Environmental Protection Act does not go into detail on the specifics of this fee, as separate laws determine them. The fee must be specified in proportion to the area used and the quantity utilized. The law prescribes record-keeping, data reporting, and declaration obligations.

The product charge is imposed on the production, import, and distribution of products that particularly burden or endanger the environment or any of its components during or after their use and which must be determined per unit of the product sold. The scope of products is subject to the fee, the fee rate and the rules for keeping records and providing data are also determined by separate laws.<sup>9</sup> Specific regulations apply to the taking back of used products. If the law obliges the producer, distributor, or importer to take back the product, then the fee on such products must be used to recycle, dispose of, or finance investments to achieve these goals.

The deposit fee is a specific fee because it does not constitute revenue for the central budget, so it is not considered a tax in the traditional sense. The environmental impact and the product distributor are obliged to take care of the collection and handling of the used product and to pay the deposit fee to the person returning the product.<sup>10</sup> Therefore, if reimbursement is unnecessary, the deposit fee constitutes revenue for the product distributor.

The procedural costs and fees consist partly of administrative service fees payable for environmental and nature conservation administrative procedures conducted by the environmental and nature conservation authority, as well as the costs of investigations incurred during the administrative proceedings of the administrative authority, material and personal costs, and other procedural costs. The law specifies the supervisory fee

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<sup>7</sup> Environmental Protection Act, Section 59(2)–(4).

<sup>8</sup> Act LXXXIX of 2003 on Environmental Pollution Charges, Chapter II.

<sup>9</sup> “See” the Act LXXXV of 2011 on Environmental Protection Fee.

<sup>10</sup> Regulation of Government No. 209/2005 on the Rules for Applying the Deposit Fee.

among the fees, while separate legal regulations determine other service fees. The supervisory fee constitutes the revenue of the environmental authority and serves to cover the operational costs related to supervisory activities. The obligation party engaged in activities subject to environmental permit and reporting obligations must pay the fee (Nagy, 2013).

The Environmental Protection Act provides a framework for the economic instruments of environmental policy. Still, the regulation only covers some instruments and establishes a system for reviewing and applying economic tools. The National Environmental Protection Program (2009–2014)<sup>11</sup> provides much more precise regulation in this regard, with the previously mentioned three categories: negative incentives, positive incentives, and special instruments. Taxes and fees belong to the negative incentives category, while indirect and direct subsidies fall under positive incentives. Indirect subsidies are also part of the subsidy category, but they should be discussed under taxes, as they include tax exemptions and discounts. Direct subsidies refer to public financial support, which may come from the European Union, international organizations, the central budget, or the local government budget (Nagy, 2012).

In a narrower sense, environmental taxes include the environmental product charges, environmental pollution charges, and energy tax (for electricity, natural gas, and coal) (Herich, 2011). Even narrower interpretation only includes the following fees in the system of eco-taxes, according to the literature: environmental pollution charges and environmental product charges (Darák, 2012).

According to tax law classification, the budget laws serve as the basis for typification, which until 2012 included the environmental product charges, the environmental pollution charges, and the energy tax. However, from 2012 onwards, the circle of eco-taxes also changed in the budget law, as it only included the energy tax and the environmental pollution charges.<sup>12</sup> Later, according to the act in effect on the central budget, only the environmental pollution charges remained in the eco-tax category.<sup>13</sup>

Therefore, the legal regulation needs to be more consistent from a financial, legal perspective in defining the boundaries of environmental taxation. However, there is a literature classification that aims to comprehensively cover the system of environmental levies, focusing on more than just the narrow interpretation of environmental taxes and charges. The position highlights that environmental aspects are enforced under various legal titles in different countries, making it difficult to standardize the system (Nagy, 2017). The literature also considers the three classic eco-taxes as a direct environmental tax (energy tax, environmental pollution charge, environmental product charge), but also includes other payment obligations in the system, pointing out that these also play a similar role (excise tax on fuels, registration tax) (Galántainé Máté, 2004).

According to the opinions in the scientific literature, the dual approach of the environmental tax system is outlined. In a narrower sense, an eco-tax is a public burden that serves ecological protection goals and can influence the environmentally friendly behaviour of taxpayers. Based on this definition, taxes that generate state revenue for

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<sup>11</sup> Resolution of the Parliament No. 96/2009 (XII.09.) on the National Environmental Protection Program for the period between 2009 and 2014.

<sup>12</sup> Act CLXXXVIII of 2011 on the Central Budget of Hungary for the year 2012, Annex No. 1., Chapter XLII.

<sup>13</sup> Act XXV of 2022 on the Central Budget of Hungary for the year 2023.

environmental protection but do not influence market participants in an ecologically friendly direction cannot be classified into the system (Darák, 2015). In a broader sense, the OECD approach indicates that in the case of environmental taxes, the tax effect dominates, meaning that if a budgetary tool contributes to reducing pollution or preserving the natural environment and resources, it can be considered an environmental tax (Kiss, 2005).

The definition of environmental tax can also be approached from the perspective of the tax base, meaning that environmental tax is a type of tax where the tax base is the physical unit of a thing that has a proven negative impact on the environment, aiming to discourage environmentally harmful behaviours (Nagy, 2014). Another problematic area of environmental taxation is whether we are talking about environmental taxes (*környezeti adók*), environmental protection taxes (*környezetvédelmi adók*), or eco-taxes (*ökoadók*). Although these terms are loosely used in everyday language and literature, the distinction is significant.

Environmental legal terms should be used as a reference to define the concepts. The concept of the environment is generally formulated by the Convention of the Council of Europe.<sup>14</sup> The term “environment” refers to natural resources – whether they are living or non-living (air, water, soil, flora, fauna) – and the interactions between them, heritage assets and defining characteristics of landscapes, according to the convention, or the cultural heritage (Bándi, 2011).

The scientific sources talk about environmental tax systems, which are widely interpreted as the term “tax”. In many cases, “eco-taxes” include taxes, fees, levies, and other payment obligations (this is so widespread in the literature that we have to accept it as a technical term). The Hungarian literature also uses the term “tax system”, which includes not only traditional taxes but also other public burdens (Nagy, 2014).

The legal regulation in Hungary defines the system of public burdens among the rules of public burden sharing, which is considered by the theory as a classification based on the types of general revenues.<sup>15</sup>

### 3. ENVIRONMENTAL TAXES IN SLOVAKIA

There is no definition of environmental taxes in the Slovak legal system (“Cf.” Jozef Sábó, 2017) as the European Commission also points out in its statement, which states that individual EU member states interpret and explain the concept of environmental taxes differently.<sup>16</sup> In the case of Slovakia, this can undoubtedly be attributed to several important factors.

On the one hand, the Slovak authorities and institutions involved in the issue do not attempt to formulate their definition, but rather work with unified definitions<sup>17</sup> accepted by various international organizations (OECD, UN, EU), according to which

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<sup>14</sup> Lugano, 1993.

<sup>15</sup> Act CXCV of 2011 on the Economic Stability of Hungary, Sections 28–39.

<sup>16</sup> See for example: European Environment Agency, *Market-based instruments for environmental policy in Europe*, European Environment Agency, Copenhagen 2005, 40.

<sup>17</sup> For example, see the material of the Statistical Office of the Slovak Republic (*Štatistický úrad Slovenskej republiky*) on environmental taxes, which refers to internationally accepted definitions, <https://tinyurl.com/3reyh2x6>, 5 May 2023.

environmental taxes are those types of taxes that have a physical unit as their basis, which has a proven negative impact on the environment.<sup>18</sup> On the other hand, another critical factor is that the tax types falling under the definition above are often not referred to as “environmental taxes” (*environmentálne dane*) but rather with similar phrases. Examples of such terms include “environmentally related taxes” or “environmental protection taxes” (*dane s environmentálnym aspektom*) or “taxes related to the environment” (*dane súvisiace so životným prostredím*). While the former term can be found, for example, on the information portal<sup>19</sup> of the Ministry of the Environment of the Slovak Republic,<sup>20</sup> independent analytical organization of the ministry (Mokrý, 2023), the Institute for Environmental Policy, uses the latter term in some of its publications.<sup>21</sup> The document “The Environmental Policy Strategy until 2030”,<sup>22</sup> jointly prepared by the institute and the ministry, works with the term “environmental taxes.”

The lack of a national definition of environmental taxes in Slovakia may be because there is no legislation that comprehensively regulates the entire group of environmental taxes or at least a large part of it. Regulations related to tax types within the group of environmental taxes are typically found in specific legislation or legislation that regulates multiple tax types for other reasons (such as local taxes or turnover taxes) rather than to comprehensively regulate environmental taxes. Therefore, in the Slovak legal system, we currently cannot find legislation appropriate for “incorporating” the definition of environmental taxes, given the subject matter of the regulations included in it.

The European Parliament and Council Regulation No. 691/2011/EU on European environmental-economic accounts (specifically Section 3 of Annex II) distinguishes four groups of environmental taxes: energy taxes, transport taxes, pollution taxes, and resource taxes. In Slovakia, none of the tax types belongs to the resource taxes (*dane zo zdrojov*) group,<sup>23</sup> but there are representatives of the remaining three categories.

By the guidelines outlined in the statistical handbook<sup>24</sup> issued by Eurostat in 2013, the following tax types belong to the energy taxes group in Slovakia: mineral oil tax (*daň z minerálnych olejov*), electricity tax (*daň z elektriny*), coal tax (*daň z uhlia*), natural gas tax (*daň zo zemného plynu*), and, according to a material prepared by a representative of the Slovak Environmental Agency (*Slovenská agentúra životného prostredia*)<sup>25</sup> available on the Ministry of Environment's information portal, the tax on nuclear facilities<sup>26</sup> (*daň za jadrové zariadenie*), fees for the storage of gases and liquids (*úhrada za uskladňovanie*

<sup>18</sup> Regarding the unified definition, please refer to the official website of the OECD, <https://stats.oecd.org/glossary/detail.asp?ID=6437>, 5 May 2023.

<sup>19</sup> *Enviroportál – Informačný portál rezortu Ministerstva životného prostredia Slovenskej republiky*.

<sup>20</sup> Hereinafter referred to as Ministry of Environment or ministry.

<sup>21</sup> For further see the announcement on the website of the Ministry of Environment of the Slovak Republic, <https://www.minzp.sk/iep/publikacie/komentare/zelena-zelenemu-zdanovaniu.html>, 5 May 2023.

<sup>22</sup> *Stratégia environmentálnej politiky Slovenskej republiky do roku 2030 (Eurostratégia 2030)*.

<sup>23</sup> “See” <https://www.enviroportal.sk/envidat/5501/dane-s-environmentalnym-aspektom>, 02 January 2023.

<sup>24</sup> The statistical manual can be accessed here: <https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-gq-13-005>, 02 January 2023.

<sup>25</sup> The document can be accessed at the following address, <https://www.enviroportal.sk/indicator/detail?id=361&print=yes>, 11 March 2023.

<sup>26</sup> The mentioned document refers to the tax for placing a nuclear facility (*daň za umiestnenie jadrového zariadenia*), which is probably a grammatical inaccuracy since the relevant law only speaks of the tax for nuclear facilities.

*plynov a kvapalín*), and emissions quotas introduced by the EU Emission Trading System (*emisné kvóty*).

The mineral oil tax in Slovakia is regulated by Act No. 98/2004 Coll. on Excise Tax on Mineral Oils, as amended.<sup>27</sup> Therefore, this is a special legislation with no regulations on other taxes besides this tax type. The substantive part of the law entered into force on 1 May 2004,<sup>28</sup> on the same day that the country joined the European Union. The tax applies to a wide range (potentially usable as fuel) of mineral oils, including motor gasoline, diesel oil, liquefied hydrocarbon gases (e.g., propane-butane), petroleum bitumen, etc.<sup>29</sup>

The regulations regarding electricity tax, coal tax, and natural gas tax are contained in a single source of law, in the Act No. 609/2007 Coll. on Excise Tax on Electricity, Coal and Natural Gas, as amended.<sup>30</sup> The three types of taxes were introduced to comply with the European Union obligations stemming from the Directive 2003/96/EC (Solík and Dubielová, 2010). The basis for coal tax is the quantity of coal expressed in metric tons, with the rate set at 10.62 euros per metric ton. The basis for electricity tax is the quantity of electricity expressed in megawatt-hours, with a tax rate of 1.32 euros per MWh. The basis for the natural gas tax is also the quantity of natural gas expressed in megawatt-hours, with the same tax rate as for electricity tax, except when the natural gas is used for the production of compressed natural gas (CNG) intended as fuel, in which case the tax rate is 9.36 euros per MWh. CNG itself is subject to the natural gas tax, in which case the tax base is the quantity of CNG expressed in kilograms, with a tax rate of 0.141 euros/kg for CNG intended as fuel and 0.01989 euros/kg for CNG designed for heating. Citizens, as final consumers, are exempt from the payment obligations of the regulated tax types under the law.<sup>31</sup>

While the four energy taxes described above can be categorized as excise taxes, that is, indirect taxes, other energy taxes are fundamentally different. The tax on nuclear facilities is one type of local tax, regulated by Act No. 582/2004 Coll. on Local Taxes and Local Fees for Municipal Waste and Minor Construction Waste, as amended<sup>32</sup> (hereinafter referred to as the Act on Local Taxes). According to this law, the tax is levied on nuclear facilities (nuclear power plants) in operation, and the tax base is a designated area measured in square meters located within the area of land defined by the Slovak Republic Nuclear Regulatory Authority (*Úrad jadrového dozoru Slovenskej republiky*) as being within the area of nuclear risk.<sup>33</sup> The amount of the tax depends on the proximity of the area to the nuclear facility, ranging from 0.0006 to 0.0039 euros per square meter.<sup>34</sup> Interestingly, even though we are talking about a local tax, and the amount collected is

<sup>27</sup> *Zákon č. 98/2004 Z. z. o spotrebnej dani z minerálneho oleja.*

<sup>28</sup> Act No. 98/2004 Coll. on Exercise Tax for Mineral Oil, as amended, Section 48.

<sup>29</sup> “See” the website slovensko.sk, which is the central portal of public administration [https://www.slovensko.sk/sk/agendy/agenda/\\_spotrebna-dan-z-mineralneho-ol/](https://www.slovensko.sk/sk/agendy/agenda/_spotrebna-dan-z-mineralneho-ol/), 11 March 2023.

<sup>30</sup> *Zákon č. 609/2007 Z. z. o spotrebnej dani z elektriny, uhlia a zemného plynu.*

<sup>31</sup> See the official website of the Slovak Financial Authority (*Finančná správa Slovenskej republiky*), <https://www.financnasprava.sk/sk/obciana/dane/spotrebne-dane/spotrebne-dane-obciana-ele>, 19 March 2023.

<sup>32</sup> *Zákon č. 582/2004 Z. z. o miestnych daniach a miestnom poplatku za komunálne odpady a drobné stavebné odpady.*

<sup>33</sup> Act No. 582/2004 Coll. on Local Taxes and Local Fees for Municipal Waste and Minor Construction Waste, as amended, Section 67.

<sup>34</sup> *Ibid.*, Section 70.



entirely the revenue of the affected municipalities, the municipalities have no influence on the tax rate, which is determined by law.

The basis for the fee to be paid for the storage of gases and liquids is laid down in Act No. 44/1988 Coll. on the Protection and Utilization of Mineral Resources (Mining Act), as amended.<sup>35</sup> According to this act, the fee for storing gases and liquids must be paid after the utilisation of underground spaces created as a result of mining activities or the extraction of other minerals (e.g., petroleum) for storing gases or liquids. The details regarding the fee must be determined by government regulation.<sup>36</sup> This was done by the Government Regulation No. 50/2002 on the Fee for Mining, Extracted Minerals, and Storage of Gases and Liquids,<sup>37</sup> according to which the basis of the fee is determined by the quantity of stored liquid in tons or stored gas in cubic meters.<sup>38</sup> The revenue from the fee constitutes the income of the Slovak Environmental Fund.

The domestic regulations regarding quotas introduced by the EU emissions trading scheme can be found in Act No. 414/2012 Coll. on Emission Trading, as amended. Quotas that are not distributed for free must be put up for auction. The proceeds from the auction form part of the revenue of the Environmental Fund, which must be used for activities related to reducing greenhouse gas emissions.<sup>39</sup>

It is important to note that in Slovakia, revenue from energy taxes constitutes the majority of the total income from environmental taxes. In 2020, revenue from this category was ten times higher than from transportation taxes, while revenue from pollution taxes was nearly one hundred times higher.<sup>40</sup>

The following tax types belong to the category of transport taxes: motor vehicle tax (*daň z motorových vozidiel*), registration fee for motor vehicles (*poplatok za registráciu motorového vozidla*) and tax for entering and staying in the historical part of a city with a motor vehicle (*daň za vjazd a zotrvanie motorového vozidla v historickej časti mesta*).

The motor vehicle tax is regulated by Act No. 361/2014 on Motor Vehicle Tax, as amended, so like the mineral oil tax, this type of tax also has complete special legislation. However, unlike the mineral oil tax, the motor vehicle tax is typical of direct taxes. It is important to note that the motor vehicle tax applies only to specific categories of vehicles (such as agricultural or industrial machinery are not subject to the tax), and the tax is only payable for vehicles used for commercial purposes.<sup>41</sup> The tax base depends on the type of vehicle and is determined by its engine capacity in cc, engine power in kW or maximum allowed weight.<sup>42</sup> The tax rate varies significantly depending on the age of the vehicle, the

<sup>35</sup> Zákon č. 44/1988 Zb. o ochrane a využití nerastného bohatstva (banský zákon).

<sup>36</sup> Act No. 44/1988 on the Protection and Utilization of Mineral Resources, as amended, Section 14.

<sup>37</sup> Nariadenie vlády Slovenskej republiky č. 50/2002 Z. z. o úhrade za dobývaci priestor, úhrade za vydobyté nerasty a o úhrade za uskladňovanie plynov alebo kvapalín.

<sup>38</sup> Regulation of the Government of the Slovak Republic No. 50/2002 Coll. on Payment for Mining Area, Mined Minerals and Stocking of Gases or Liquids, as amended, Section 5.

<sup>39</sup> Act No. 414/2012 Coll. on Emission Trading, as amended, Section 18.

<sup>40</sup> Statistics on revenues from certain categories of environmental taxes, <https://www.enviroportal.sk/envidat/5501/dane-s-environmentalnym-aspektom>, 1 April 2023.

<sup>41</sup> Act No. 361/2014 on Motor Vehicle Tax, as amended, Section 2.

<sup>42</sup> Act No. 361/2014 on Motor Vehicle Tax, as amended, Section 5.

type of propulsion (electric motor, CNG, hydrogen benefit) and other various factors.<sup>43</sup> The revenue from the tax is part of the state budget.<sup>44</sup>

The tax to be paid for driving into and staying in a historical part of a settlement with a motor vehicle is one type of local tax, which is regulated by the Act on Local Taxes, similar to the tax on nuclear facilities. The tax must be paid for the day of entry and every additional day of stay.<sup>45</sup> According to para. 63 of the act, municipalities can determine the tax rate independently, and the law does not establish specific threshold values in this regard. The revenue from the tax is part of the local government's income. The third group of environmental taxes is represented by pollution taxes, which in Slovakia include the fee for discharging sewage into surface waters (*poplatok za vypúšťanie odpadových vôd do povrchových vôd*), the fee for air pollution (*poplatok za znečisťovanie ovzdušia*), and the fee for the area obtained during mining (*úhrada za dobývací priestor*).

The general rules for the payment of a fee for the discharge of wastewater into surface waters are laid down in Act No. 364/2004 Coll. on Water, as amended (Water Act).<sup>46,47</sup> According to the aforementioned Act, persons who discharge more than 10,000 m<sup>3</sup> of wastewater in a calendar year or more than 1,000 m<sup>3</sup> of wastewater in one month, while specific indicators of the wastewater exceed the threshold values specified in the implementing regulation, or who discharge an equal amount of geothermal water, are subject to a fee payment obligation.<sup>48</sup> The detailed rules on the fee (e.g., the aforementioned threshold values and the fee rate) are contained in Government Regulation No. 755/2004.<sup>49</sup> The exact amount of the fee depends on the type and concentration of pollutants present in the wastewater.<sup>50</sup>

The fee for air pollution is regulated by Act No. 401/1998 Coll. on Air Pollution Charges, as amended, according to which the fee is determined based on the emission data declared by polluters.<sup>51</sup> The law distinguishes among small, medium, and large pollution sources. Small sources are required to pay a lump sum fee of up to EUR 663.87 per year, taking into account the data declared in their declaration, while medium and large sources are required to pay a certain amount of fee depending on the type of pollutants emitted (the relevant list of pollutants is found in Annex I of the act) and their quantity (the formula for this is set out in Annex II of the act). The amount collected from small polluters is allocated to municipalities under Section 7 of the act, while the remaining revenue from the fee goes to the Environmental Fund.

The fee to be paid for the space obtained during mining is related to the fee for storing gases and liquids mentioned above, as this fee is also regulated by the Mining Act and Government Decree No. 50/2002. The fee to be paid for the space obtained is 20,000

<sup>43</sup> Act No. 361/2014 on Motor Vehicle Tax, as amended, Section 7.

<sup>44</sup> Act No. 361/2014 on Motor Vehicle Tax, as amended, Section 15.

<sup>45</sup> Act No. 582/2004 Coll. on Local Taxes and Local Fees for Municipal Waste and Minor Construction Waste, as amended, Section 62.

<sup>46</sup> *Zákon č. 364/2004 Z. z. o vodách a o zmene zákona Slovenskej národnej rady č. 372/1990 Zb. o priestupkoch v znení neskorších predpisov (vodný zákon).*

<sup>47</sup> Act No. 364/2004 Coll. on Water, as amended, Section 79.

<sup>48</sup> Act No. 364/2004 Coll. on Water, as amended, Section 79(4).

<sup>49</sup> *Nariadenie vlády Slovenskej republiky č. 755/2004 Z. z., ktorým sa ustanovuje výška neregulovaných platieb, výška poplatkov a podrobnosti súvisiace so splatňovaním užívania vôd.*

<sup>50</sup> Government Decree No. 755/2004, Section 9(2) and annex no. II.

<sup>51</sup> Act No. 401/1998 Coll. on Air Pollution Charges, as amended, Section 3(1) and (2).

Slovak crowns (equivalent to approximately 664 euros) for each square kilometre of the mining area, for each started square kilometre, according to Section 32a(1) of the Mining Act. According to Section 32a(5) of the Mining Act, 20% of the collected fee goes to the state budget, while 80% goes to the budget of the municipality in whose territory the mine is located.

Even though in Slovakia, many different taxes, fees, and charges fall into the category of environmental taxes, the total revenue generated from environmental taxes amounts to just over 2% of Slovakia's GDP, and furthermore, there has been a decreasing trend in recent years. Therefore, the system of environmental taxes needs to be modernised and undergo systematic changes (Bodáčzová and Haluš and Haščič, 2020).

#### 4. ENVIRONMENTAL TAXES IN THE CZECH REPUBLIC

The definition of environmental taxes appears outside the Czech legal system. However, a review of relevant Czech literature shows that there are several synonymous terms (Radvan, 2017) in use,<sup>52</sup> indicating that the terminology is not consistent, and different definitions and interpretations of the concept can be found. Similar reasons to those in the Slovak legal system are likely behind the lack of a national definition of environmental taxes in the Czech Republic. The Czech Statistical Office (*Český statistický úřad*) has been working on the topic since 2009, using the methodology developed jointly by the OECD and Eurostat in cooperation with environmental legal experts from Charles University in Prague. The work started with identifying different types of taxes (Veselá, 2013).

According to the paper published by Radvan (Radvan, 2009), energy (ecological) taxes can be defined as compulsory levies, determined by law, based on measurable negative environmental impacts caused by a specific physical unit. These taxes permanently deduct a portion of an economic entity's nominal income and allocate it to a public fund, typically on a regular basis, without providing any equivalent compensation. Although the terms "tax" and "fee" are often used interchangeably, the law does not explicitly define them. Therefore, the term "energy/ecological fee" can also be described as a compulsory levy with a predetermined rate based on the negative environmental impact caused by a physical unit. Ecological levies are generally regarded as taxes rather than fees, with certain exceptions potentially existing for specific municipal waste fees (Radvan, 2017).

Regarding Czech scientific literature, the fundamental characteristic of environmental taxes is their connection to the environment, which may manifest as a goal set at introducing the tax or as an unintended effect of a tax introduced for non-environmental purposes (Brigant, 2010). Furthermore, environmental taxes can be defined as a mandatory tax set by law, based on a physical unit that has been proven to have a negative impact on the environment. Such taxes are imposed regularly, non-refundable, and without any equivalent compensation, deducting a portion of the nominal income of an economic unit for the benefit of the state treasury (Radvan, 2008).

As already established in Slovakia, the European Parliament and Council Regulation No. 691/2011/EU on European environmental, and economic accounts distinguishes four

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<sup>52</sup> Similarly, to Slovakia, in the case of the Czech Republic, the term "environmental taxes" (*daně s environmentálním aspektem*) or "environment-related taxes" (*daně související s životním prostředím*) is also used.

groups of environmental taxes: energy taxes, transport taxes, pollution taxes, and resource taxes. In the Czech Republic, no tax types fall into the resource and pollution taxes category (Przyhoda, 2023) but there are representatives of the remaining two categories.

It can be concluded that in the Czech Republic, the following taxes belong to the group of energy taxes: the tax on electricity (*daň z elektřiny*), the tax on coal (*daň z pevných paliv*), and the tax on gas (*daň ze zemního plynu*), but the tax on mineral oils (*daň z minerálních olejů*) is also included in this group.

The tax on mineral oils is one of the traditional excise taxes, along with wine, beer, spirits, and tobacco. It is typically paid by operators of tax deposits, recipients or producers of specific products, or individuals and entities responsible for import taxes. However, the list of taxpayers is extensive, and registration with a customs office is mandatory. Mineral oil is taxable, encompassing various types such as motor petrol, aviation fuels, medium and heavy oils, waste oils, liquefied petroleum gases, compressed gases, and petroleum oil mixtures (Radvan, 2017).

Taxes are levied on various types of gases, including natural gas. However, there is a notable exception when it comes to generating heat for households. Typically, the entity responsible for paying the tax is the gas supplier. The tax is calculated based on the quantity of heat produced and the applicable tax rates, which vary depending on the intended purpose of use. Moreover, taxes are levied on solid fuels, encompassing coal and briquettes, coke, semi-coke, and similar substances. However, certain exemptions commonly apply, particularly in cases involving electricity production or coke manufacturing. The individuals or entities responsible for paying the tax are the suppliers of solid fuels to the end consumers. The tax is calculated based on the quantity of solid fuels in gigajoules (GJ) heat (Radvan, 2017).

Regarding the taxation of electricity, there is an exemption for electricity generated in an environmentally friendly manner, such as solar energy, water power plants, biomass, and more, as long as the production capacity is up to 30 kW. The same exemption applies to electricity used for mountainous areas, trains, trams, and trolleybuses. The entities responsible for paying the tax are the electricity suppliers to the end consumers. The tax is calculated based on the quantity of electricity in megawatt-hours (MWh), with a tax rate of CZK 28.30 per MWh. Since electricity is supplied continuously, the taxable period for this tax is one month (Radvan, 2017).

It is highly likely that all taxes in the Czech context, strictly speaking, are influenced to some extent by ecological considerations, often attributed to the influence of environmentalists or, in certain instances, individuals referred to as eco-terrorists. In this context, we should mention the income taxes,<sup>53</sup> value added tax,<sup>54</sup> taxes on motor vehicles and property taxes.

While our research did not reveal a proposal for environmental tax reform in Slovakia,<sup>55</sup> the Ministry of Environment of the Czech Republic (*Ministerstvo životního*

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<sup>53</sup> Act No. 586/1992 Coll. on Income Taxes, as amended.

<sup>54</sup> Act No. 235/2004 Coll. on Value Added Tax, as amended.

<sup>55</sup> Igor Matovič, the Minister of Finance, presented his tax reform proposal multiple times, but he never addressed the issue of environmental taxes, despite the fact that the Program Declaration of the Slovak Republic (*Programové vyhlásenie vlády Slovenskej republiky*) states their intention to strengthen the role of environmental taxes in terms of environmental sustainability. In this regard, please refer to page 58 of the aforementioned

*prostředí České republiky*) collaborated with the Ministry of Finance of the Czech Republic (*Ministerstvo financí České republiky*) and the Ministry of Labour and Social Affairs of the Czech Republic (*Ministerstvo práce a sociálních věcí České republiky*) in 2000 to prepare the first official proposal for environmental tax reform,<sup>56</sup> which was discussed by the Government of the Czech Republic (*Vláda České republiky*)<sup>57</sup> in the first half of 2001. Following the 2002 elections, the new government set a goal to carry out an environmental tax reform that respects the principle of revenue neutrality, building on the work of its predecessors. The environmental tax reform proposal was developed in 2003 and has been modified several times (Ekins and Speck, 2011).

In the Czech Republic, regarding environmental taxes, the year 2008<sup>58</sup> proved to be a milestone<sup>59</sup> in the Czech tax system because the country introduced three new taxes into its tax system in line with the conditions of its European Union membership: a) a tax on solid fuels, b) a tax on natural gas and other gases, and c) a tax on electricity (Radvan and Neckář, 2007). This was done by enacting Act No. 261/2007 Coll. on the Stabilization of Public Budgets, as amended<sup>60</sup> These three new tax names can be collectively referred to as the “triple environmental tax” (Hruška, 2015), and their introduction is assumed to be primarily due to the obligations arising from Directive 2003/96/EC, which sets the minimum level of environmental taxes on selected raw materials, and Directive 2004/74/EC, which provided an exemption for the Czech Republic until the end of 2007.<sup>61</sup> However, introducing these three new environmental taxes was only a part of the environmental tax reform, which was implemented in three stages.<sup>62</sup>

The characteristics of the mentioned taxes are that they are the newest taxes in the Czech tax system and an integral part of the Czech tax reform. The main principles of their new legal regulation were determined to comply with the requirements set out in the Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity, as amended by Council Directive No. 2004/74/EC of 29 April 2004 amending Directive 2003/96/EC as regards the possibility for certain Member States to apply transitional periods or derogations concerning the taxation of energy products and electricity (Hruška and Dvořáková, 2013). It should be noted that the Czech state introduced these taxes into its tax system by the Act on the Stabilization of Public Budgets, in line with Directive 2003/96/EC and, consequently, Directive 2004/74/EC. According to the Ministry of the Environment of the

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Program Declaration, <https://www.nrsr.sk/web/Dynamic/DocumentPreview.aspx?DocID=494677>, 26 May 2023.

<sup>56</sup> Regarding the tax reform, please refer to the statement published on the website of the Ministry of Environment of the Czech Republic, <https://www.mzp.cz/cz/edr>, 26 May 2023.

<sup>57</sup> Hereinafter referred to as Czech government.

<sup>58</sup> Until 1992, the tax system did not contain separate regulations regarding environmental taxes; these taxes were introduced by Act No. 2012/1992 Coll. on the Tax System, as amended, which came into effect in 1993.

<sup>59</sup> Although the directive obliged all member states to introduce environmental taxes from 1 January 2004, the Czech Republic took advantage of the possibility of exemption and applied tax exemption until 1 January 2008. Environmental taxes were introduced after the transitional period expired on 1 January 2008. For more information on this, see: Čamrová, 2007.

<sup>60</sup> *Zákon č. 261/2007 Sb., o stabilizaci veřejných rozpočtů*.

<sup>61</sup> The exemption also applied to other countries, such as Poland or Hungary.

<sup>62</sup> During the deeper analysis of the environmental tax reform in the Czech Republic, five stages can be identified: “See” more on this topic: Hruška, 2015, and Soukopová et al., 2011.

Czech Republic, the main aim of the environmental tax reform in the Czech Republic is to encourage economic players to adopt environmentally friendly behaviour.<sup>63</sup>

In the Czech Republic, environmental tax reform<sup>64</sup> was launched in 2008, and its first phase took place in 2008–2009. This stage included the introduction of environmental taxes in accordance with the 2003/96/EC directive.

The second phase, which emphasized reducing harmful air emissions, was implemented between 2010 and 2013. This phase mainly included the evaluation of the first phase and the preparation for the introduction of a carbon tax system, but due to the revision of the 2003/96/EC directive, the original plans to introduce a carbon dioxide tax as the fourth environmental tax (or as one of the elements of the tax on solid fuels) did not materialize. No other new environmental taxes were introduced in the Czech tax system (Hruška, 2015). However, the air pollution fees were significantly modified due to the new Act No. 201/2012 Coll. on Air Protection, as amended.

The final phase of the environmental tax reform can be dated to 2014–2017 when further modifications were introduced to environmental taxation. This included the extension of environmental taxes through the transformation of certain environmental charges into environmental taxes and the taxation of raw materials and products with negative environmental impacts (“Cf.” Svátková, 2009).

In addition, the environmental taxes that are the focus of the research have some common characteristics: for example, the handling of environmental taxes is the responsibility of customs authorities; the revenues generated from these taxes are part of the central state budget of the Czech Republic; the tax period is the respective calendar month; the deadline for submitting tax returns and fulfilling tax payment obligations is the 25th day of the month following the occurrence of the tax liability. The tax area is the territory of the Czech Republic. From the perspective of tax theory, environmental taxes have many other common features (Čamrová, 2007).

The decision of the Constitutional Court of the Czech Republic<sup>65,66</sup> was crucial for the law on stabilising the state budget, as five months after the law came into force, a group of 67 members of the Chamber of Deputies<sup>67,68</sup> submitted a proposal, to repeal the entire law on stabilising the state budget and some of its provisions, as they believed that the law was adopted unconstitutionally, thus violating the constitutional order.<sup>69</sup> According to the appellants, some parts of the law are not related to its subject and purpose, so a separate law would be needed for their entry into force, and they also point out that the principle of coherent, transparent and predictable law has been violated. It can be concluded that one of the main reasons for submitting the proposal was to refer to legislative errors in the law on stabilizing the state budget, as it contains three separate laws on environmental taxes.<sup>70</sup> The Czech Constitutional Court rejected the application and stated that every part of the

<sup>63</sup> This refers to the information published on the website of the Ministry of Environment of the Czech Republic, <http://www.mzp.cz/cz/edr>, 3 June 2023.

<sup>64</sup> Regarding the tax reform, “see” also: Zimmermannová, 2023.

<sup>65</sup> *Ústavní soud České republiky*.

<sup>66</sup> *Nález Ústavního soudu ze dne 20. 5. 2008 sp. zn. Pl. ÚS 1/08*.

<sup>67</sup> The Czech legislative power (parliament) is bicameral: its lower house is the Chamber of Deputies consisting of 200 members, while its upper house is the Senate consisting of 81 members.

<sup>68</sup> *Poslanecká sněmovna parlamentu České republiky*.

<sup>69</sup> Pl. ÚS 1/08, III/a, point 11.

<sup>70</sup> Pl. ÚS 1/08, III/a, point 22.

law on stabilizing the state budget (including sections 45, 46 and 47) is an integral part of stabilizing the state budget. The fact that the controversial legislation did not prove to be unconstitutional and passed the rationality test suggests that the intervention of the Czech Constitutional Court is only possible in cases of flagrant arbitrariness and irrationality of the legislator, which – as has been repeatedly established and suggested – was not present in this case.<sup>71</sup>

## 5. CONCLUSIONS

Environmental issues are increasingly playing a crucial role in both everyday life and the economy. Legislators are prompting every country to attempt to confine environmentally polluting activities within the boundaries of legislation. Environmental policy instruments encompass two main spheres: direct official regulation and indirect economic measures.

Looking ahead from a regulatory perspective, economic incentives' significance will grow, contrasting direct regulations. Economic regulatory instruments aim to guide participants in economic activities towards adopting appropriate environmental taxes. The EU's legislation also urges Member States in this direction. For example, since the 1990s, Hungary has taken significant steps in this domain, aligning its regulations with EU legislation and intensifying its regulatory measures in this area. It can be asserted that Hungary's prevailing environmental tax regulation is in line with European standards.

The purpose of this paper was to review the issue of environmental taxation in three Central European countries: Hungary, Slovakia, and the Czech Republic. These countries were chosen due to their common historical backgrounds and experiences of environmental damage caused by large companies of the socialist era recently. Moreover, they are currently confronted with new environmental challenges due to re-industrialization.

It can be stated that in Hungary, Slovakia, and the Czech Republic, there is no specific definition of environmental taxes in their respective legal systems. This aligns with the acknowledgement by the European Commission that EU member states interpret and explain the concept differently. Various synonymous terms are used, indicating an inconsistent terminology and different interpretations of the concept. The national authorities and institutions must consistently use a unified term to describe such taxes.

The instrumental system of economic regulation in environmental protection is complex, and different literature classifies and typifies instruments in various ways. However, regarding Hungary, the legislation, particularly the Environmental Protection Act, does not provide a consistent system for classifying these instruments or a clear explanation of their role. The instruments covered in the text include subsidies, environmental use tax, procedural costs and fees, insurance and surety, and environmental fines. These instruments need to be systematically classified or explained in the Environmental Protection Act.

Regarding Slovakia, the environmental taxes can be categorised into energy, transport, and pollution taxes. To conclude, the lack of a comprehensive definition, inconsistent

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<sup>71</sup> Pl. ÚS 1/08, IX, point 134.

terminology, and fragmented regulations highlight the necessity for a more coherent and unified approach to environmental taxes in the country.

In the Czech Republic, four groups of environmental taxes are distinguished: energy, transport, pollution, and resource taxes. It should be highlighted that introducing environmental taxes in the Czech Republic was part of an environmental tax reform implemented in three stages. The final phase, from 2014 to 2017, involved further modifications to environmental taxation, including transforming certain environmental charges into taxes and the taxation of raw materials and products with negative environmental impacts.

At this point, it is worth mentioning that Slovakia approached the introduction of environmental taxes and the implementation of Directive 2003/96/EC somewhat differently from the Czech Republic. As mentioned earlier, the Slovak legislator does not use the term “environmental tax” in any legislation but introduces such taxes directly into Act No. 609/2007 Coll. Compared to the Czech regulation, we consider this to be a better solution, as the law is clear, and the differences are properly defined, making it easier to navigate. The Czech Republic has followed the path of comprehensive tax reform (Slovakia and Hungary have not done so yet), although we can only speak of its success with caution thus far.

In summary, while all three countries address environmental taxation, they exhibit variations in their approach, definitions (or lack thereof), and legal frameworks. The study underscores the need for clearer purposes, consistent terminology, and more comprehensive regulations to foster effective environmental taxation policies across these Central European nations. As emission taxes and fines were introduced in some Central and Eastern European countries in the 1970s, they initially had no economic function; this role only became evident with the development of a market economy. It is important to note that budget constraints in these countries result in limited resources being available for environmental objectives, leading several countries, such as Slovakia and the Czech Republic, to place environmental tax revenues in a separate environmental fund.

The regulation field concerning ecological taxes or ecological reform is still in its early stages, and ongoing disagreement persists on how to approach these concepts and whether they offer a correct and viable solution. Consequently, it is not unexpected that numerous mistakes are made during the implementation of these ideas.

In general, we believe that the range of environmental taxes should be extended, and more taxes with an environmental impact should be included in the list of environmental taxes, as the concept of environmental taxes does not fully cover taxes that may have an environmental impact. It is essential that environmental taxes should be used exclusively for environmental purposes and not for general budgetary needs.

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