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Rogulski, Mariusz

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The system of reports and financial charges related to the use of the environment – some proposals for improvement

Mariusz ROGULSKI

Warsaw University of Technology, Poland

Abstract: This article presents an analysis of the Polish system of environmental reporting and financial charges. It describes the main forms of information reporting and payment obligations in Poland as determined by law. Next, a brief examination of the revenue from these sources is presented and some practical aspects related to the functioning of the system are discussed. The article highlights the multiplicity of reporting requirements and corresponding huge burdens for businesses and public administration. The goal of the paper is to present several proposals for the improvement of the system through the use of, inter alia, new technologies to facilitate the execution of reporting by entities benefiting from the environment or entail the centralization of data on all entities using the environment.

Keywords: entities using the environment, environmental reports, environmental taxes

1. Introduction

Everyone uses the environment every day, to a lesser or greater degree, through water use, sanitation and waste production. To maintain the natural balance of the environment, it is important to proceed in accordance with the doctrine of sustainable development. The concept was the brainchild of Hans Carl von Carlowitz and originally referred to forest management – over the long term only cut as many trees as you can replace. The idea of sustainability is concluded in the opening words of the 1987 report of the World Commission on Environment and Development, "Our Common Future": "Sustainable development is development that meets

Correspondence Address: Mariusz Rogulski, Faculty of Environmental Engineering, Warsaw University of Technology, ul. Nowowiejska 20, 00-653 Warsaw, Poland. E-mail: Mariusz.Rogulski@is.pw.edu.pl

the needs of the present without compromising the ability of future generations to meet their own needs."

A lack of rational environmental management means that the environment is not able to regenerate itself quickly enough on its own. The environment needs support and responsible behavior from all stakeholders. Unfortunately, it is human nature on a personal and business level to maximize profits and minimize losses. Consequently, few entities perceive the real long-term costs and intangible pain in terms of environmental damage that can arise from short-term financial gains. In a carrot-and-stick approach to push users of the environment toward responsible behavior, governments have set up mechanisms to enforce cost-efficient management of environmental resources by imposing certain costs and obligations on beneficiaries of the environment and enforcing penalties and remedies against entities that fail to comply.

Environmental tax revenues are used as tools to repair damage to the environment, to raise awareness of the role the environment plays in society, and to promote and co-finance activities designed to reduce future negative effects on the environment. They are obligatory for a lot of business entities so it is important that the rules of imposing the taxes and the way of fulfilling the obligations are as friendly and fair for entrepreneurs as possible and at the same time effective for public administration units that collect them.

This article examines several aspects of the environmental reporting and fee collection system in Poland. The system calls for changes in some respects (which has been suggested by, i.a. the entrepreneur organisation PKPP Lewiatan for a number of years); therefore, the aim of the article is to present some aspects of its complexity along with proposals for its improvement.

The article starts from presenting a short description of the term "environmental tax" as commonly used in Europe. Next, it discusses the Polish definition of "use of the environment" in the context of valid legislation, lists the most important report filing requirements and fees associated with environment use. They are the basis for pointing to, in the next part, several important issues concerning the Polish environmental charge system and recommendations. The last part contains a summary.

In order to identify the main problems of the Polish system of environmental taxes, the following have been analysed: i.a., current reporting obligations, publications of units engaged in the system (e.g. National Centre for Emissions Management, regional governors' offices,

National Fund for Environmental Protection and Water Management and entities that represent the interests of entrepreneurs). Moreover, statistical data from CSO and regional governors' offices and the National Centre for Emissions Management have been used.

2. Environmental taxes

The rules for charging environmental taxes and the scope of entities and activities concerned with the environment differ among nations. Eurostat and the OECD have developed a definition of environmental taxes in order to facilitate comparative studies, such as environmental tax structures, between countries. An environmental tax is defined as: "A tax whose tax base is a physical unit (or a proxy of it) of something that has a proven, specific negative impact on the environment" (European Commission, 2001: 6).

In Europe among the most common taxes are those related to emissions — particularly CO₂ — aimed to counteract the greenhouse gas effect and the negative impact of pollution on society (Badyda and Lubiński, 2009; Badyda and Kraszewski, 2010). The 1990s saw great change in the rules and methods of charging for emissions, with several countries in Europe moving beyond individual environmental taxes and implementing Environmental Tax Reforms (ETR) (Andersen and Ekins, 2009). These changes were later defined by the European Environment Agency as "a reform of the national tax system where there is a shift of the burden of taxes from conventional taxes such as labour to environmentally damaging activities, such as resource use or pollution" (European Environment Agency, 2005).

An overview of the ramifications of ETR can be found in the reports of Zajíček et al. (2011) and the Green Fiscal Commission (2010). An analysis of environmental taxes as a percentage of GDP is presented in Chivu et al (2011) and a short description of the current principles of the environmental charge system in various European countries is available on the website of the Confédération Européenne Fiscale (Eutax, 2012). A more detailed comparison and summary of the current operating principles regarding water-related taxes in some European countries is offered in Berbeka et al. (2000) and Roth (2001). Environmental taxes from various sources in Sweden, including energy, are analyzed in Palm and Larsson (2007). Other views related to the environmental charge systems in several European countries are presented in

Laskowska and Scrimgeour (2002). An analysis and conclusions relating to waste issues in selected European countries can be found in Bailey (2002).

Changes associated with charging for emissions correlate with changes in high-emission sectors such as energy, which has attracted a lot of attention. An example of the changes in the energy industry in Nordic countries can be found in Ptak (2010). Using the examples of Germany and the United Kingdom, the impact of ETR on energy prices is shown in Agnolucci (2009) as is the knock-on effect on consumption and employment. Namely, after the introduction of environmental taxes, demand for energy fell alongside a small decline in employment in the energy sector.

The rationale behind introducing financial instruments such as environmental taxes is the existence of the negative environmental effects from economic activities. If the cost of producing and supplying goods or services does not take into account the negative impact on the environment, prices are distorted encouraging further environmental degradation. Factoring environmental damage into the costs of production stimulates the use of environment-friendly technologies and results in more realistic pricing (Fujiwara et al., 2006). The impact on household budgets from prices of goods and services after the introduction of ETR in some European countries is presented in Ekins et al. (2011). The social aspects of environmental taxes are shown in Kallbekken and Sælen (2011).

Partially as a result of environmental taxes, there has been a significant drop in emissions of most environmental pollutants over the last 20 years. According to data collected by the European Environment Agency (2011) in the period 1990 to 2009 (average of all 27 current EU member states – rounded figures used), sulfur oxides showed the biggest fall in emissions (80%). Other significant declines in emissions included carbon monoxide (62%), polycyclic aromatic hydrocarbons (61%) and non-methane volatile organic compounds (55%). Smaller emission declines were also observed in particulate pollution (27% for PM10 and 34% for PM2.5), which at present, along with ground-level ozone, is the greatest problem affecting air quality in many parts of Europe (Martin et al., 2010).

Poland has been levying environmental charges for a number of years and is increasingly falling into line with western European philosophy on the environment. This is confirmed by data

that show decreasing amount of emissions from the industry to the environment – Table 1. Contrary to emissions, the amounts of wastewater and waste produced are rising – Table 2.

Table 1. Total emission of main industrial air pollutants in Poland [in thous. t].

| | 2000 | 2005 | 2009 | 2010 | 2011 |
|---|------|------|------|------|------|
| Particulates | 181 | 111 | 62 | 63 | 58 |
| Particulates from the combustion of fuels | 148 | 89 | 46 | 45 | 40 |
| Sulphir dioxide | 1040 | 856 | 473 | 519 | 503 |
| Carbon oxide | 345 | 326 | 286 | 344 | 341 |
| Nitrogen oxides | 371 | 351 | 323 | 341 | 332 |

Source: Central Statistical Office (CSO, Statistical Yearbook of Industry - Poland 2012)

Table 2. Industrial wastewater and waste in industry in Poland.

| | 2009 | 2010 | 2011 |
|---|--------|--------|--------|
| Industrial wastewater [in hm ³] | 7785 | 7989 | 8295 |
| Waste in industry [in thous. t] | 107039 | 111146 | 115874 |

Source: CSO (Statistical Yearbook of Industry - Poland 2012)

3. Reporting on use of the environment in Poland

In Poland it is the responsibility of an entity using the environment in any way to collect data and calculate the fees due. The term "entity using the environment" is defined in the Polish *Environmental Protection Act of 27 April 2001* (PEPA). Under Art. 3 p. 20 entities using the environment are:

- businesses and persons engaged in farm production activities in agricultural crops, breeding or rearing livestock, horticulture, vegetable growing, forestry, inland fisheries, and veterinary professionals in individual practice or individual specialist practice;
- individuals who are not in business but who use the environment in a manner which requires special permission,

• organizational units which are not business entities as per the *Act on Freedom of Economic Activity* (government offices, municipal facilities, schools, associations, foundations, etc.).

Article 4 of PEPA distinguishes among:

- widespread use of the environment that is available to anyone consisting of use of the
 environment without any installations to meet the needs of personal and household
 effects including leisure and sports, discharge of substances or energy to the air, and
 other types of public use of water in the meaning of the *Act of 18 July 2001 on Water*Law;
- regular use of the environment, use beyond widespread use but which requires no permit, and regular use of water under the provisions of the *Act of 18 July 2001 on Water Law*;
- use of the environment beyond widespread use requiring a permit.

Both regular use of the environment and use of the environment beyond widespread use are covered by reporting requirements and possible fees.

PEPA lists most of the environmental reporting obligations applicable in Poland. In addition, it includes references to many other rules that provide details on forms and reports for submitting information on use of the environment and related fees. Most entities are obliged to report on air-related matters, but many entities also report in the areas of water, wastewater and waste, where a major requirement is the filing of a report (hereinafter referred to as "Reports") defined by the *Regulation on the report and data on the use of the environment and amount of fees due*. The regulation determines the content of the Reports on use of the environment in the areas of:

- emission of gases or dust into air;
- consumption of water;
- emission of wastewater into water or soil;
- storage of waste.

Other common, important annual requirements include:

• product charge report (Regulation of the Minister of Environment of 29 December 2010 on the annual report of product charges) filed by businesses involved in the

production, import and manufacture of intra-packed products or products listed in the *Act of 11 May 2001 on packaging and packaging waste*, as well as acting on behalf of business recovery organizations.

- report on End-of-Life Vehicles and electrical or electronic equipment waste (Regulation of the Minister of Environment of 27 December 2010 on the transmission mode and format of information on End-of-Life Vehicles and electrical or electronic equipment waste);
- reports under the Act of 24 April 2009 on batteries and accumulators;
- report for the previous year filed by businesses that place portable batteries or accumulators on the market regarding achieved levels of collection together with a list of collection points operated by the collector and a list of collection points where the collector receives used portable batteries or accumulators (*Regulation of the Minister of Environment of 22 December 2009 on the annual report on the weight of collected portable used batteries and accumulators*);
- information on service charges for excavated minerals from deposits (Regulation on the report and data on mining fees for excavated minerals from deposits).

These are just a few examples of reporting obligations imposed by parliament on entities using or having an effect on the environment. More information on requirements can be found in Famielec and Broniewicz (2006) and Górski and Kierzkowska (2006).

4. Fees for use of the environment

In Poland each user of the environment must submit Reports to the office of the regional governor and the regional inspectorate for environmental protection. The Reports must contain information about the charges for use of the environment and the emissions data on which they were calculated. The Reports need to also include a summary of charges divided according to type of environment use (i.e., gas or dust emission into air, water consumption, wastewater emission into water or soil, and waste storage) and additional tables listing the types separately based on the extent of environment use.

Fees are paid to the office of the regional governor whose remit covers the place of use of the environment. The collected fees are passed on by the regional governors' offices to, among others, the National Fund for Environmental Protection and Water Management (National Fund) and the Regional Fund for Environmental Protection and Water Management (Regional Fund). The fees are used to finance environmental protection work performed by the respective bodies (Berkowska et al., 2003).

Each entity using the environment calculates the fees itself based on an annual unit rate and formulas contained in separate secondary legislation. A five-fold surcharge above the normal fee is payable if the user does not have a required or valid permit. The fees increase each 1 January in line with the general inflation rate for consumer goods and services for the previous year. Currently, approximately 200,000 entities submit yearly Reports and approximately 50,000 pay a fee.¹

Product charges are determined on the basis of the product fee report and are payable by:

- businesses or organizations that provide recovery of post-consumer packaging waste
 or fail to fulfill their obligation in terms of achieving specific levels of recovery
 referred to in the Act on obligations in the management of certain waste and on
 product and deposit charges;
- businesses placing on the market portable batteries or accumulators that fail to fulfill the obligation of achieving specified levels of collection as defined in the *Act on batteries and accumulators*;
- businesses placing on the market equipment or organizing recovery of electrical and electronic equipment that fail to fulfill the statutory recovery and recycling levels specified in the *Act on electrical and electronic equipment waste*.

An exemption from the charges occurs when the total annual amount does not exceed PLN 50. As of January 1 of each calendar year, the fees increase in line with the inflation rate for the previous year.

Mineral exploitation fees related to reporting under the *Geological and Mining Act* are charged for:

• mineral exploitation;

¹ Data based on Jaworski et al (2010) and Supreme Audit Office (2009) 404

- prospecting or exploration of mineral deposits;
- storage of waste in the subsurface, including underground mining excavations;
- non-reservoir storage of substances in the subsurface, including underground mining excavations.

An entity computes the mineral exploitation fees quarterly on its own and pays them in the following proportions:

- 40% to the National Fund;
- 60% to the municipality or municipalities responsible for the place of business covered by the concession.

In Poland about 5,000 entities presently pay a fee under the *Geological and Mining Act*.

PEPA also allows charging a user of the environment additional fees under the following categories:

- environment use surcharges;
- administrative fines.

Environment use surcharges, for instance, can be imposed for not possessing a license or valid permit. Administrative fines can be incurred for exceeding or breaching conditions of use of the environment as well as for waste storage and noise emissions. The provisions of PEPA, the *Geological and Mining Act* and other Acts determine particular cases and rules for paying fees and administrative penalties for the use of the environment.

All of the aforementioned fees are paid by entities that use the environment and are the main source of revenue for the institutions that collect them. The fees are either used by the institutions receiving them or transferred to other authorities.

The National Fund is the largest administrator of proceeds from fees. Together with the provincial, county and municipal funds, it serves as the pillar of the Polish system of environmental funding. PEPA underpins the functioning of the National Fund. Financing of the National Fund comes from fees for using and changing the environment (including use of water, discharge of sewage into water and soil, mineral exploitation and license fees arising from the *Geological and Mining Act*), penalties for violation of environmental protection requirements, mineral exploitation without required permission and flagrant violation of permit terms (Article

128 of the *Geological and Mining Act*), as well as other sources (such as from navigation and rafting, extraction of aggregates and sand with water, interest on loans and bank accounts, etc.).

5. Aspects of the current system of collecting fees for use of the environment in Poland and proposals for its improvement

Table 3 shows revenues from environmental fees and fines collected by authorized institutions based on CSO data.² Total Revenues represent aggregate amounts from all types of environmental fees and penalties. The adjacent columns indicate the main sources of fee revenue. Penalties denote fines imposed for both environmental contaminants in excess of admissible standards and making changes to the environment (CSO, 2011).

Table 3. Proceeds from environmental fees and fines (PLN thousands)

| Year | Total | Revenues from Fees | | | | Penalties |
|------|-----------|--------------------|-----------------|------------|---------|-----------|
| | Revenues | Wastewater and | Protection of | Waste | Other | |
| | | Water Protection | Air and Climate | Management | Domains | |
| 2003 | 1534600.6 | 512187.9 | 700243.2 | 232011.3 | 0.2 | 90158.0 |
| 2004 | 1617958.7 | 443026.9 | 834926.6 | 249600.3 | 1.3 | 90403.6 |
| 2005 | 1316696.8 | 375158.2 | 652633.7 | 189204.7 | 15.1 | 99685.1 |
| 2006 | 1554144.7 | 438779.9 | 802906.5 | 260911.8 | 20.7 | 51525.8 |
| 2007 | 1688539.4 | 457870.0 | 823848.5 | 341171.1 | 78.0 | 65571.8 |
| 2008 | 1857396.0 | 449280.0 | 817250.5 | 522010.5 | 1.7 | 68853.3 |
| 2009 | 1874035.6 | 448949.2 | 655694.6 | 705979.3 | 1.2 | 63411.3 |
| 2010 | 1944163.8 | 456589.9 | 721388.7 | 714576.1 | 6.7 | 51602.3 |
| 2011 | 1919583.9 | 463468.6 | 763906.2 | 671394.6 | 182.0 | 20814.6 |

Source: CSO (http://www.stat.gov.pl/bdl/app/strona.html?p_name=indeks)

The data show a steady increase in revenues for use of the environment in part as a result of increasing rates typically adjusted annually according to inflation. The largest increase in revenue among all categories is in waste management. This reflects greater attention paid by government units to the problem of collecting and processing waste, and the greater responsibilities and costs in this field that have emerged in recent years. The second reason for the increase in fees is the stricter enforcement of the national system for waste management charges and thus higher collection rates.

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² http://www.stat.gov.pl/bdl/app/strona.html?p_name=indeks 406

Charges related to air protection have remained relatively unchanged. Emissions, in particular CO₂, have attracted much government attention since the 1990s. The measures introduced before the year 2000 have proved to be stable with little variance in subsequent years; hence, the principles of reporting, type of data, and fees have changed only marginally. The same is true in the case of wastewater management and water protection, except here the impact of world politics has not been as strong.

Although it relates to a large number of entities, the fund-raising mechanism for use of the environment in Poland is quite effective. Like all complex structures, however, it too has some weaknesses. Most of these concern the Reports. One of the main problems is that every year about 200,000 entities³ are required to send Reports to various authorities with only some needing to pay associated fees. Many entities are required to send Reports regardless of whether a fee is due. Payment applies to those entities for which the fee is greater than PLN 800 per year. According to assessments made by regional governors, an estimated 50,000 entities make payments on a yearly basis.⁴ Other entities file Reports, but do not pay. This results in unnecessary work for the employees of regional governors from which there is no benefit as the data entered on the use of the environment does not serve any current or future purpose. In this case, the reporting obligation is onerous for entities using the environment as well as the officials involved in tracking them.

This finding is confirmed by the results of a report released by the Supreme Chamber of Control (2009). The analysis found that most of the Reports submitted to the regional governors do not generate fees. Approximately 70% of entities (six regional governors' offices were audited) that submitted Reports in the period 2007 to 2008 were exempt from fees as the amount did not reach the PLN 400 threshold.

One significant improvement to the reporting system for use of the environment would be the elimination of filing requirements for Reports to the regional governors and regional environmental inspectorates for users who do not incur any charges. The obligation for these entities to maintain records for all components of environment use would, however, remain

³ Data based on Jaworski et al (2010) and Supreme Audit Office (2009)

⁴ Data based on Jaworski et al (2010) and Supreme Audit Office (2009)

unchanged. In case of an audit conducted by a regional environmental inspectorate or governor's office, the documents would be available for inspection.

Another common problem is the requirement to submit certain reports in hard copy which results in a large number of paper documents being processed at the regional inspectorates and governor offices (Supreme Audit Office, 2009). Conversely, the filing of a report in electronic format does not release the entity from the obligation to submit a physical document to the appropriate authority. This, however, does not apply to all types of reports. Some authorities build dedicated systems for specific reports. An example is the collection of information and fees under the *Geological and Mining Act* where the National Fund is the direct recipient of the data and related payments. The National Fund is currently implementing an information system named *e-oplaty.geolog* (i.e., "geological e-payments") (Tensoft) that will enable electronic communication with entities. Users of the environment required to provide information and pay fees will have their own profile in this system facilitating the transition to a paperless office.

Electronic reporting is being promoted by the Ministry of Administration and Digitization through its "e-government" initiative. Government authorities and entities using the environment are encouraged to use the Public Administration Services Platform (ePUAP). ePUAP is a system whereby citizens can conduct official business via the Internet, while public representatives can provide correspondence and other services free of charge in electronic form. An essential feature of ePUAP is an "electronic correspondence registry" that confirms receipt of all electronic documents and serves as official proof of their submission. Furthermore, a complimentary Trusted Service Profile is offered to ensure security by confirming the indentity of a user and is equivalent to a secure electronic signature verified by a qualified certificate. In the absence of dedicated tools to support electronic reporting, some government units use particular types of reports from the Central Repository of Document Templates located in ePUAP. This is a store and share platform containing templates of electronic documents prepared by public authorities across the country. A user of the environment might, for instance, use a report template from the repository to fill in applicable data and e-mail it to the relevant institution in XML format.

The goal of the onging rollout of the electronic reporting system processes should also entail the centralization of data on all entities using the environment. A central database would be an invaluable source of information for all institutions including regional governors' offices,

regional inspectorates as well as county offices. The lack of such a database makes it difficult or even impossible to compare different entities and monitor the entities required to report and pay fees. Currently, the same information is duplicated in different types of reports. Entities that emit significant amounts of air-related pollutants, for example, are often required to provide subsets of the same overall data by filing separate annual documents such as:

- report to the *National database on emissions of greenhouse gases and other substances* administered by KOBiZE⁵ (National Centre for Emissions Management) under the *Act on the management system for greenhouse gas emissions and other substances*;
- report under PEPA to the regional governor's office;
- report under PEPA to the regional inspectorate for environmental protection;
- PRTR (European Pollutant Release and Transfer Register) report to the regional inspectorate of environment protection based on Art. 236B p. 1 of PEPA;
- report on emissions of air pollutants and on the state of treatment facilities to the Central Statistical Office under the *Act on Public Statistics*.

All such requirements are cumbersome for the entities and cause multiple errors and dicrepancies in the databases of the public bodies collecting and processing the information.

6. Concluding remarks

This paper presented a discussion of the reporting and fee collection system related to the use of the environment in Poland. It listed some advantages and disadvanges of the current system and offered some suggestions for its improvement.

Reporting and fee collection in Poland involves a large number of entities and brings in substantial revenue that is spent on pro-environmental actions. Consequently, it is imperative that the scope, process and form of information and payment transfer should be made the least burdensome for all parties involved. On the basis of the many years of experience acquired by public officials in conjunction with the latest technological advancements, the current system

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⁵ https://krajowabaza.kobize.pl/

needs to be streamlined by introducing improvements beneficial to entities using the environment as well as public institutions without losing sight of the primary objective: the funding of meaningful measures to prevent and remove negative human impact on the environment.

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System raportowania i opłat za korzystanie ze środowiska w Polsce oraz propozycje jego usprawnienia

Streszczenie

W artykule przedstawiono analizę polskiego systemu sprawozdawczości środowiskowej i opłat za korzystanie ze środowiska. Opisano główne formy przekazywania informacji oraz regulacji zobowiązań płatniczych określonych przez akty prawne. Następnie przedstawiono krótką analizę wielkości przychodów z tych źródeł, a także omówiono kilka praktycznych aspektów związanych z funkcjonowaniem systemu. Podkreślono wielość wymogów w zakresie sprawozdawczości, co przekłada się na duże obciążenia dla przedsiębiorstw i administracji publicznej. Celem artykułu jest przedstawienie kilku propozycji dotyczących poprawy systemu raportowania i zbierania opłat za korzystanie ze środowiska poprzez zastosowanie m. in. nowoczesnych technologii w celu ułatwienia sprawozdawczości oraz centralizację informacji na temat podmiotów korzystających ze środowiska.

Słowa kluczowe: podmioty korzystające ze środowiska, raporty dotyczące korzystania ze środowiska, opłaty za korzystanie ze środowiskowa