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THE DEVELOPMENT OF A SYSTEM OF ENVIRONMENTAL FEES AND CHARGES IN WASTE MANAGEMENT IN POLAND

1. Introduction

The growth of environmental pollution is leading to a decrease in the quality of the natural environment. On one hand the costs resulting from environmental pollution have a negative impact upon the pace of economic development, on the other hand however, certain economic instruments may make firms concentrate their efforts on decreasing pollution resulting from productive processes e.g. by eliminating obsolete technology or precise and rational management of sources and materials. Restraint of this negative tendency may take place by introducing a suitable system of environmental fees and charges. Appropriate policy concerning the level of rates and elastic methods of their usage mobilises firms to introduce more environmentally sound technology. The approaching integration of Poland with the countries of the European Union requires more environmentally sound policies, which demand implementing a Polish system of environmental fees. Fees for waste generation in particular demand adaptation to rules accepted in the European Union. The introduction of such corrections lies in Poland's interest, which would not decrease the competitive edge of Polish firms on international markets, and would simultaneously contribute to lowering pollution and fulfil the demands of the European Union in the sphere of improving legal rules protecting the environment.

Regulations, related to the currently functioning system of fees and punishments in waste management in Poland, are based on:

- The Act of 27 April 2001 – The Law on Environmental Protection,¹
- The Act of 27 April 2001 on Wastes,²
- The Act of 11 May 2001 on Packaging and Waste Packaging,³
- The Act of 11 May 2001 on the Duties of Businessmen in the Field of Waste Management, Product Charges and Deposit Payments,⁴
- The Act of 27 July 2001 on the introduction of the Act – The Law on Environmental Protection, the Act on Wastes and Amendments to certain Acts,⁵
- The Decree of the Cabinet of 11 September 2001 on the Rates of Product Charges,⁶
- The Decree of the Cabinet of 9 October 2001 on Fees for Using the Environment.⁷

The basic economic tools of the system are: fees for land-filling waste, punishments and increased fees for land-filling waste which does not conform with environmental protection requirements, product charges and deposit payment.

2. Fees for land-filling waste

Fees for economic use of the natural environment such as landfills should aim at obtaining compensation for the harm and pollution caused. Such fees should also stimulate economic subjects to rational management of natural supplies and cover the costs of returning the environment to its previous state. The level of fees should be adjusted to the degree of environmental pollution. The fees should take into account the quality of the supplies used, their scarcity and the degree of their recycling and re-use. Fees should also be general. Practical settlement of the optimum rate for land-filling waste comes across a lot of difficulties. Primarily these difficulties are caused by the continually changing economic situation of firms, fluctuations in their prosperity and the demand for their products. Fees incurred by firms cause a rise in production

¹Dziennik Ustaw, No. 62, Item 627, 2001.

²Dziennik Ustaw, No. 62, Item 628, 2001.

³Dziennik Ustaw, No. 63, Item 638, 2001.

⁴Dziennik Ustaw, No. 63, Item 639, 2001.

⁵Dziennik Ustaw, No. 100, Item 1085, 2001.

⁶Dziennik Ustaw, No. 116, Item 1235, 2001.

⁷Dziennik Ustaw, No. 130, Item 1453, 2001.

costs, which lead to a decrease in competitiveness, especially in markets where environmental fees are currently on a low level. It has been argued that establishing an optimal Pigou tax, in some cases, may lead to increases of several hundred percent in fees which are already relatively high [Żylicz, 1993].

The system of fees for land-filling waste is based on the influence of waste on the environment and human health. The introduction of the Decree of Cabinet of 13 January 1986 on Fees for Economic Use of the Environment resulted in change.⁸ The fees defined there, especially in the final period of its being in force (the first half of 1990), were far too low to efficiently realise a stimulant function or even fund function. For the particular groups of waste they were defined at the following rates: waste group I – 0.24 PLN/Mg, waste group II – 0.06 PLN/Mg, waste group III – 0.012 PLN/Mg and waste group IV – 0.006 PLN/Mg.

Table 1. Fees for land-filling waste in the years 1990–2001

Fees in current prices [PLN/Mg]				
Year	Group I	Group II	Group III	Group IV
1990 ^{a)}	7.20	1.80	0.36	0.18
1991	18.00	4.50	1.00	0.50
1992	25.00	10.00	4.00	2.00
1993 ^{b)}	30.00	12.00	4.00	2.00
1994	40.00	15.00	5.00	3.00
1995	49.44	18.54	6.18	3.71
1996	63.23	23.71	7.90	4.75
1997	73.73	27.65	9.21	5.54
1998	84.00	32.00	10.00	6.00
1999	92.00	35.00	11.00	7.00
2000	95.60	36.40	11.40	7.30
2001	101.50	38.70	12.10	7.80
Fees in 1990 prices [PLN/Mg]				
Year	Group I	Group II	Group III	Group IV
1990	7.2	1.8	0.36	0.18
1991	10.57	2.64	0.59	0.29
1992	10.27	4.11	1.64	0.82
1993	9.10	3.64	1.21	0.61

⁸Dziennik Ustaw, No. 7, Item 40, 1986.

Table 1 cont.

Fees in 1990 prices [PLN/Mg]				
Year	Group I	Group II	Group III	Group IV
1994	9.18	3.44	1.15	0.69
1995	8.88	3.33	1.11	0.67
1996	9.48	3.56	1.18	0.71
1997	9.62	3.61	1.20	0.72
1998	9.81	3.74	1.17	0.70
1999	10.10	3.81	1.20	0.76
2000	9.45	3.60	1.13	0.72
2001	9.54	3.64	1.14	0.73

a) The fees that were in force from 1 July 1990 on the basis of The Decree of Cabinet of 25 June 1990 on Fees for Economic Use of the Environment..., Dziennik Ustaw, No. 42, Item 245, 1990.

b) The rates that have been in force since 1 April 1993 on the basis of The Decree of Cabinet of 25 June 1990 on Fees for Economic Usage of the Environment..., Dziennik Ustaw, No. 9, Item 44, 1993.

Source: My own calculation based on selected legal acts determining fees for land-filling waste.

An extremely significant change was brought about by The Decree of Cabinet of 25 June 1990 on Fees for Economic Use of the Environment and Introducing Changes to the Environment.⁹ On its basis the fee was raised by a factor of 30 in comparison with the previous one. Because of their further ineffectiveness, fees were changed the same year. Since 1991 fees for dumping waste are set on a stable level in accordance with real prices, and every year minimum fees are adjusted according to inflation. Therefore the rise in fees at the beginning of the year does not fundamentally differ from the rate of inflation (see Table 1).

The fees have been regularly published in the Decrees of Cabinet since the Act of 27 June 1997 on Wastes¹⁰ has been in force. In this decree not only fees for locating waste on a landfill are presented, but also the level of annual fees for its disposal, as well as a list of types of waste free from environmental fees. The annual fee for land-filling waste equalled 3% of the level of the charge for land-filling waste, apart from some types of waste covered by a fee per unit. For example, the annual fee for engine oils, batteries or accumulators was 15.60 PLN/Mg.

The Act of 27 April 2001 – The Law on Environmental Protection qualifies maximum fees for locating waste at a landfill site from 2002. In accordance with Article 290, the maximum fee cannot exceed 200 PLN/Mg.

⁹Dziennik Ustaw, No. 96, Item 592, 1997.

¹⁰Dziennik Ustaw, No. 49, Item 196, 1994.

Detailed fees are defined in The Decree of the Cabinet of 9 October 2001 on Fees for Environmental Use. Next year's fees will be defined by decrees.

In accordance with Article 274 of the Act of 27 April 2001 – The Law on Environmental Protection, since January 2002 there has been only one fee for locating waste at a landfill site. Up till now an annual fee for land-filling waste was included in the obligatory fees for locating waste at a landfill site. The legal novelty is a municipal waste charge for locating waste on a landfill site.

3. Increased fees and punishments for land-filling waste inconsistently with the regulations on environmental protection

The realisation of legislation in the field of environmental protection involves increased fees and administrative fines, which have to be paid by firms when the set norms are infringed. Fees are imposed for use of the natural environment, independently of the financial situation of a firm.

Fines cannot be counted as a cost of the economic activities of firms. In consequence, they do not diminish the tax base, but decrease a firm's profit directly. Such a painful policy forces firms to systematically undertake various activities reducing pollution.

Fines for land-filling waste inconsistently with the regulations were introduced on the basis of Art. 110 of The Act of 31 January 1980 on Protection and Shaping the Environment.¹¹ The Decree of the Cabinet of 20 June 1995 on the Level, Regulations and Means of Imposing Fines for not following regulations on environmental protection¹² has been in force since 25 July 1995.

Increased fees and fines for land-filling inconsistently with the regulations on environmental protection from 2002 have been stated in the Act of 27 April 2001 – The Law on Environment Protection. This act defines the fine for every twenty four hours of land-filling without a required permit confirming the manner and place of waste disposal or confirming the exploitation of a landfill site. The fine equals 5% of the fee for waste location on landfill site per twenty four hours. This fine increases to 10% in the case of land-filling in a place not intended for this purpose. The fine is increased to 15% waste location on a landfill site in the case of accumulation or pouring out of waste:

¹¹Dziennik Ustaw, No. 49, Item 196, 1994.

¹²Dziennik Ustaw, No. 79, Item 399, 1995.

- over river banks or water reservoirs, in protective zones around water intakes or sources,
- onto areas which are subject to special protection e.g. national parks, sanctuaries,
- onto forest or tourist grounds or health resorts.

The highest fine is 100 times the fee and applied in the case of getting rid of waste into inland waters, seas-internal waters or territorial sea waters.

The act also defines administrative fines for the accumulation and pouring out of waste into places not intended for this purpose or inconsistently with the conditions defined by the relevant decisions of an administrative organ. Administrative fines are imposed from the day of ascertainment of an offence to the day the infringement ceases. These fines are inflicted by a provincial inspector for environmental protection. Land-filling waste which does not confirm to environmental protection regulations concerning the place, manner or conditions is punished at the rate of 10% of the fee per unit for waste location on landfill site per twenty four hours.¹³ This fine does not relieve a polluter from the duty of removing waste or obtaining a permit for waste storage. Further illegal land-filling of waste may lead to a doubling if the fine in case of additionally accumulated or poured out waste.

This system of fines for not fulfilling the regulations of environmental protection used nowadays is supplemented by mechanisms making limitation of those fines possible. Any subject punished subject, declaring a wish to realise actions aimed at fulfilling environmental regulations, has the possibility of applying for a postponement, payment by instalments or even remission of the fine. A provincial inspector for environmental protection is the proper organ that may decide on limitation of administrative fines.

4. Product charges

The introduction of product charges, widely employed in the European Union, was necessary to finance protection of the environment from particularly harmful goods. A considerable quantity of these goods were and are still used by many small users. Those users are dispersed, which considerably increases difficulties in environmental protection in this field. Many years of research into effective mechanisms that would limit human activity damaging to the environment convinced experts, specialists and decision-makers responsible for ecological policy to introduce

¹³Dziennik Ustaw, No. 62, Item 627, Art. 309, 2001.

product charges on all goods, which are either harmful to the environment or are dangerous during the production process, their use or after their exploitation.

The regulations that have been in force since 2002 impose duties on economic subjects producing especially harmful and polluting products. The basic duty of business is to provide a suitable level of recycling or material recovery, and in the case of packaging it is vital to limit harmful substances used in the production of packaging. These regulations also set limits on the quantity of waste packaging generated according to its harmfulness to the environment, hence reducing packaging volume and mass. The regulations oblige the use of a suitable marking system, which enables an increased level of recycling and wider re-use of certain packaging.

Business, which do not fulfil the regulations on recycling rules of used materials, products and packaging at the level stated in the act are subject to product charge. The product charge due is the product of the unit rate of product charge and the difference between the required and achieved level of recycling and material recovery. One should pay the appropriate account at the office of the provincial Marshal.

Examples of the unit rates of product charges are presented in Tables 2 and 3, and the required final levels of recovery and recycling in Table 4.

Table 2. Product charges for packaging in 2002

Type of package	Unit rates [PLN/kg]
Plastic	2.50
Aluminium of less capacities up to 300 l	1.25
Paper and cardboard	0.60
Glass	0.15
Multi-material	2.70

Source: My own calculations from The Decree of the Cabinet of 11 September 2001 on the rates of product charges.

Table 3. Product charges for products in 2002

Product type	Unit rate
Refrigerating and air conditioning devices with CFC and HCFC	50–150 PLN/item
Nickel-Cadmium batteries	0.50–26 PLN/item
Batteries	0.10–5.00 PLN/item

Table 3 cont.

Product type	Unit rate
Lamps	0.50–1.20 PLN/item
Engine oils	1.90 PLN/kg
Tyres	0.10–3.00 PLN/kg

Source: My own calculations from The Decree of the Cabinet of 11 September 2001 on the rates of product charges.

Table 4. Required final levels of recovery and recycling in 2002

Waste from	Level of recovery [%]	Level of recycling [%]
Plastic packaging	—	25
Paper and cardboard packaging	—	48
Glass	—	40
Multi-material packaging	—	25
Batteries	50	50
Lead batteries	100	100
Engine oils	50	25
Tyres	75	—

Source: My own calculations from The Act of 11 May 2001 on duties of business in the field of some waste management, product charge and deposit payment.

5. Deposit payments

Deposits serve to reduce the potential effects of waste and environmental pollution and are paid exclusively by consumers. A deposit is made in the form of a surcharge on the price of a product especially dangerous to the environment. Its level depends on the degree of harmfulness. The deposit is paid back to a payer at the moment of the expiration of potential threats to environment e.g. when returning a used product to re-utilisation or recycling. If environmental pollution occurs, the deposit obtained becomes a financial source for the liquidation of pollution, repairs of the harm caused, payment of any indemnities incurred and recovery of exploited goods. A firm purchasing a greater quantity of goods dangerous to the environment may also act as a consumer. That is why the aim of ecological deposits will be to mobilise firms to landfill waste in an environmentally sound manner, recycle or re-use. The main advantage of a deposit system is the possibility of introducing it for a wide

range of products. However, the charge depends on potential threats and harm to the environment.

One deposit payment system has been in force since the beginning of 2002. It concerns lead batteries and the deposit is 30 PLN/item. The deposit payment is charged at the moment of purchase. Return of the deposit takes place within 30 days after the return of the battery.

6. Tendencies of changes in environmental fees in waste management

An optimal system of environmental fees, ensuring the realisation of the aims set up by state ecological policy and in agreement with European Union law, should contain:

- fees for location on landfill sites of both industrial and municipal waste,
- fees for land-filling industrial waste,
- fines for land-filling waste inconsistently with the regulations on environmental protection,
- product charges on products being a potential threat to the environment during their exploitation or afterwards,
- deposit payments on products or technical operations (*e.g.* transport), which are environmentally unsound,
- obligatory insurance against damage arising from environment unsound activities,
- transferable authorisation for waste generation.¹⁴

On the basis of the practice in the European Union, the current fees and charges in waste management should be in force for several years, then modified around 2015 and should finally be replaced by ecological taxes.

Literature

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Dziennik Ustaw, No. 96, Item 592, 1997.

¹⁴An attempt to propose a comprehensive system of fees and charges in waste management was undertaken by M. Łuszczuk in his doctoral thesis "Kierunki zmian systemu opłat ekologicznych w gospodarce odpadami w Polsce", Cracow University of Economics, 2001.

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