

State aid policy for environmental protection in Poland after accession to the European Union: did it meet expectations in the face of challenges?

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Abstract

In the face of years of negligence in the environmental protection in Poland, the membership in the European Union has caused the adoption not only of a restrictive legal framework and now ambitious environmental goals, but also restrictions on permissible support for entrepreneurs. To date there is a lack of research combining both legal and financial aspects in this field. The aim of this study is to identify the extent, to which Poland's policy of financial assistance to entrepreneurs has exercised the legal framework for granting state aid for environmental protection. To this end, we conducted a comparative analysis of EU legislation on state aid and Polish aid schemes for environmental protection, as well as statistical analysis of changes in granting aforementioned state aid in terms of its intended uses and areas of support in Poland. We found the high degree of cumulation to certain sectors and incidentality of environmental aid in Poland, both in terms of its objectives envisaged by the Commission and of support areas. That support did not follow a well-thought-out, coherent and systematic policy of supporting entrepreneurs, but was merely a collection of isolated interventions, depending on the availability of fund resources in the EU financial perspectives.

Keywords: state aid for environmental protection, Poland, European Union, "polluter pays" principle.

Polityka pomocy publicznej na ochronę środowiska w Polsce po przystąpieniu do Unii Europejskiej: czy spełniła oczekiwania wobec wyzwań?

Streszczenie

W obliczu wieloletnich zaniedbań w dziedzinie ochrony środowiska w Polsce, członkostwo w Unii Europejskiej spowodowało przyjęcie nie tylko restrykcyjnych ram prawnych, a obecnie ambitnych celów środowiskowych, ale również nałożenie ograniczeń w odniesieniu do dopuszczalnego wspierania przedsiębiorców. Do tej pory brakuje prac łączących aspekt prawny i finansowy w tym obszarze. Celem niniejszego opracowania jest określenie zakresu, w jakim polska polityka pomocy finansowej dla przedsiębiorców korzystała z prawnych możliwości udzielania pomocy publicznej na ochronę środowiska. W związku z tym przeprowadzono analizę porównawczą prawodawstwa unijnego w zakresie pomocy publicznej oraz polskich programów pomocowych na rzecz ochrony środowiska, a także analizę statystyczną zmian w udzielaniu ww. pomocy publicznej pod kątem jej przeznaczenia i obszarów wsparcia w Polsce. W wyniku badania stwierdzono wysoki stopień rozproszenia i incydentalności pomocy środowiskowej w Polsce, zarówno pod względem jej celów przewidzianych przez legislację unijną, jak i obszarów wsparcia. Pomoc ta nie wynikała z przemysłowej, spójnej i systematycznej polityki wspierania przedsiębiorców, a była jedynie zbiorem pojedynczych interwencji, uzależnionych od dostępności środków w perspektywie finansowej UE.

Słowa kluczowe: pomoc publiczna na ochronę środowiska, Polska, Unia Europejska, zasada "zanieczyszczający płaci".

One of the world's major challenges today is the climate change, which the international community has been trying to address for several decades. A leader in identifying the sources of the problems and taking actions in this area is the European Union, which at the turn of the 21st century took ambitious measures to protect the environment and improve energy efficiency. These measures as a whole have now become the element of the concept of climate transition.

Since its accession to the EU, Poland has been struggling with problems of effective environmental protection, due to both systemic delays and *market failure*, i.e. the unwillingness of entrepreneurs to undertake costly environmental measures. The EU's response to this problem was to introduce the possibility of multi-faceted financial intervention to support entrepreneurs' investments in this sphere, and the final form adopted for environmental regulations was strongly influenced by lobbying groups (Flåm 2009). As a result, these regulations do not necessarily reflect the situation of all Member States and the needs of the entrepreneurs.

Previous research on state aid for environmental protection in Poland has basically been limited to the presentation of legislative changes in the EU (Ambroziak 2008) and aggregation of statistical data on the position of this category of aid in the structure of public support in comparison with other Member States (Braun 2020; Bartniczak 2013; Rutkiewicz 2011). Furthermore, the European Commission combines environmental issues with energy efficiency, which reflects a comprehensive approach to tackling climate change, but makes it impossible to single out basic operations that are strictly environmental.

We have identified a gap in research on environmental state aid in Poland, particularly with regard to financial interventions in the market in the form of different categories of state aid offered to entrepreneurs. Recent initiatives of the European Union, including the concept of the *European Green Deal*, have been developed on the basis of experience resulting from previous actions taken by governments and business since the end of the 20th century. Taking into account the challenges facing Poland as a member of the European Union in the field of climate change, it is worth analysing the financial instruments used in the framework of environmental policy after Poland's accession to the European Union.

Therefore, **the aim of this study** is to identify the extent, to which Poland's policy of financial assistance to entrepreneurs has exercised the legal options for granting state aid for environmental and how public funds have been distributed in terms of objectives and beneficiaries. We formulated a thesis that Poland, as one of EU Member States, has gradually increased its involvement in the form of financial support for entrepreneurs to improve environmental protection since its accession to the EU. Two research questions arise in this context, which we will attempt to answer: a) to what extent Poland has used EU legal instruments to build a state aid policy for environmental protection, and b) whether state aid support has ensured an even distribution of funds among different types of beneficiaries or has led to their accumulation in certain industries.

In order to answer the research questions and to verify the hypothesis, an analysis will be carried out of secondary legislation of the European Union issued by the European Commission in relation to state aid for environmental protection and those concerning this category of support. In order to capture Poland's approach, a comparative legal analysis of aid schemes and individual aid programmes for environmental protection prepared in Poland and accepted by the European Commission in 2004-2022 was carried out. In order to assess the distribution of public sources, a statistical analysis of the state aid granted for environmental protection was carried out in terms of objectives, areas of interventions and beneficiaries. To this end, we used data collected and delivered by the European Commission and the Office for Competition and Consumer Protection in Poland (OCCP).

In the first part of this article, we will present the concept of state aid for environmental protection based on international principles stemming from the outcome of discussions within the OECD in the 1970s and the recent evolution of the treaties establishing the European Union. The comparative legal analysis covers EU legislation and Polish state aid for environmental protection. This part will be followed by statistical analysis of changes in granting state aid for environmental protection in terms of its intended uses and areas of support in Poland. The article ends with conclusions and recommendations.

The concept of state aid for environmental protection

Any financial intervention by the state in market mechanisms may lead to an artificial improvement in the competitiveness of domestic undertakings not only within the single European market, where all barriers have been eliminated, allowing i.a. the free movement of goods within the EU, but also in relation to third-country partners. Despite

the negative consequences of supporting the economic operation of undertakings with public funds,¹ there are exemptions to the general rule that state aid is not permitted in the EU. One of them is the possibility of granting environmental aid under the exemption mentioned in Article 107(3)(c) TFEU, which states that "aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest" may be considered to be compatible with the internal market.

Although from the legal point of view there are many diverging interpretations of the compatibility of financial support for environmental protection with EU rules (Bouchagiar 2020), in the economic approach it needs to be determined whether the *market failure* condition is fulfilled with respect to inefficient allocation of resources in the Pareto sense, i.e. in which the production of one good (or consumption by one consumer) cannot be increased without decreasing the production of another good (or consumption by another consumer) (Stiglitz 2004; Kaur 2009). In the case of environmental aid, it is pointed out that this failure leads to the suboptimal use of environmental resources, and to their excessive use and degradation (Podsiadło 2015). However, the market does not indicate any preference for a socially desirable level of environmental quality, nor can it directly determine the unit price of pollution for a given good (Kozuch 2010; Popławski 2013). A solution can be sought through the internalisation of externalities, stimulated both by public subsidies (Hyung-Jin 2000) and regulatory support, as well as the implementation of private ideas (Coase theorem 1960).

The financial support accepted in a free market economy should only be a response to the already mentioned *market failure* resulting from the negative externalities of business operations, which – without sufficient incentives – are not taken into account by entrepreneurs in their operations. Consequently, the costs to an undertaking may be lower than the costs to society (Podsiadło 2015). The rationale for granting financial support is asymmetry of information, e.g. regarding the profitability and risks of the environmental project, or coordination errors, which amount to the absence of common interests of cooperating entrepreneurs in the context of environmental protection (Stiglitz 2004).

In its guidelines, the European Commission indicates that those market failures are unlikely to "lead to optimal welfare for consumers and society at large, resulting in insufficient levels of environmental protection in relation to the economic activities conducted in the absence of State support" (European Commission 2022: p.10). Support can take the form of both corrective taxes² on the producer/polluter to align the producer's private marginal costs with marginal environmental costs, as well as subsidies to support environmental investments or tradable emission allowances. The essence of the latter comes down to a purely market-based mechanism: the ability to purchase and sell permits on the market so that they are distributed to those producers, who manufacture goods with the lowest levels of pollution.

¹ According to Article 107(1) of the Treaty on the Functioning of the European Union (TFEU).

² For example, Pigouvian tax (named after English economist Arthur Cecil Pigou, who developed the concept of economic externalities) – a tax on any market activity that generates negative externalities.

The market-based approach to environmental protection in the EU was ensured by the introduction of provisions on environmental protection into the EEC Treaty with the Single European Act of 1986, including the indication that it is "based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay" (Article 191(2) TFEU; see also: OECD 1972). Its implementation should discourage pollution of the environment according to the principle that the costs of measures aimed at combating pollution should be borne by the polluter. The means of operational implementation of the aforementioned treaty provisions in the EU was Directive 2004/35/EC, aimed to establish a framework of environmental liability based on the 'polluter pays' principle. The above-mentioned principles were even referred to by the European Commission in its first guidelines on State aid for environmental protection, and restated in subsequent legislation (European Commission 1994, 2001, 2008b). At the time, the solution was adopted that state aid should not be considered an appropriate instrument to support polluters. Additionally, "economic activities can harm the environment not least through pollution. In certain cases, in the absence of government intervention, undertakings can avoid bearing the full cost of the environmental harm arising from their activities" (European Commission 2008b: point 1.2.(7)). It is worth noting at this point that the original meaning of the discussed principle relating only to the production and marketing of products has been significantly extended towards controlling the impact of products throughout their life cycle (Pouikli 2016).

According to the Commission, "undertakings generating waste should not be relieved of the costs of its treatment" through the aid system (European Commission 2022: p. 53). What is equally important is that any aid provided should not be targeted at the undertaking's regular costs (European Commission 2014a,b, 2022). This approach is about ensuring that entrepreneurs operate under identical conditions in the market: all should conduct their activities in such a way as to meet the national or EU environmental requirements, and, if they exceed them, should bear the corresponding costs. If this principle was not included, state aid to selected entrepreneurs would mean that benefits were granted selectively to the exclusion of those who are not covered by such a scheme. As a result, it is assumed that the "polluter pays" principle prevents state aid being granted, where it could distort competition in the market. Only aid that complies with this principle or is granted under particularly justified exception should be acceptable on both legal and economic grounds (Stoczkiewicz 2009).

Consequently, aid for environmental protection is justified when such intervention leads to a change in the behaviour of the entrepreneur and, as a result, to a higher level of environmental protection than would be the case without financial support. However, the aim is to change the entrepreneurs' behaviour and not to participate in the costs they are forced to bear, e.g. under national or EU regulations (Hyung-Jin 2000; Podsiadło 2015). This is known as the *incentive effect*, and it is an important criterion for assessing the admissibility of state aid in the EU, and whether the aid is necessary. It is equally important to ensure that the granted aid does not exceed the costs incurred

by the entrepreneur to achieve a higher level of environmental protection (Haucap, Schwalbe 2011).

Taking the above-mentioned principles into account, the European Commission has developed a set of categories of state aid for environmental protection that is acceptable from the point of view of competition rules, including that compatible with the "polluter pays" principle. Thus, aid categories such as aid for more environmentally friendly but more expensive substitutes; aid aimed at obtaining a higher level of environmental protection (going beyond environmental standards or improving environmental protection in the absence of EU standards); aid for the acquisition of transport vehicles that go beyond the standards required by EU law and aid for early adaptation to future EU standards were introduced (Pouikli 2016).

Evolution of the rules on state aid for environmental protection in the European Union

The Commission's environmental guidelines contained criteria to be taken into account when assessing the compatibility of notified state aid for environmental protection. The regulations in force in the first years after Poland's accession to the EU provided i.a. for transitional investment aid to help SMEs adapt to new Community standards (with a ceiling of 15% of eligible costs), which was clearly a means of support to meet EU requirements (including in Poland as a new Member State), aid to improve on Community standards (up to 30% of eligible costs), and environmental investment aid (up to 30% of eligible costs) in regions eligible for regional state aid (European Commission 2001: p.7).

In the subsequent 2008 and 2014 guidelines (see: European Commission 2008b, 2014b), the Commission proposed enabling the option of granting environmental aid for going beyond EU standards or improving environmental protection in the absence of EU standards, early adaptation to future EU standards, environmental studies, waste management, remediation of contaminated sites, and relocation of undertakings (see: *Table 1*). Several patterns are worth noting. First: the smaller the undertaking, the higher the allowable aid intensity, which resulted from potentially lower distortion of competition. Second: much higher intensities were allowed for activities aimed at improvement on standards rather than just early adaptation to existing standards. Third: the closer the undertaking's activities were to the "polluter pays" principle, the lower the corresponding intensity provided for in the guidelines. The 2014 guidelines (see: European Commission 2014b) provided in many cases for a reduction in the permissible intensity, indicating the Commission's view that previous values significantly affected competitive conditions in the market.

The 2008 General Block Exemption Regulation (European Commission 2008a) provided for slightly lower allowable intensities, concerning e.g. aid for meeting requirements stricter than (going beyond) EU standards or improving environmental protection in the absence of EU standards, and aid for early adaptation to future EU standards, while the 2014 Regulation (see: European Commission 2014a, 2021) restated the maximum intensities introduced by the guidelines.

Table 1: Maximum intensity ceilings for state aid for environmental protection based on EU guidelines for 2008–2013 and 2014–2020.

	Small enterprise	Medium-sized enterprise	Large enterprise
Aid for undertakings going beyond Union standards or improving environmental protection in the absence of Union standards (aid for the acquisition of new transport vehicles)	(70% [55%]) 60% (80%) 70% if eco-innovation 100% if bidding process	(60% [45%]) 50% (70%) 60% if eco-innovation 100% if bidding process	(50% [35%]) 40% (60%) 50% if eco-innovation 100% if bidding process
Aid for early adaptation to future EU standards more than three years before the entry into force of the standards	(25% [15%]) 20%	(20% [10%]) 15%	(15%) 10%
Aid for early adaptation to future EU standards between one and three years before the entry into force of the standards	(20% [10%]) 15%	(15%) 10%	(10%) 5%
Aid for environmental studies	70%	60%	50%
Aid for waste management	(70%) 55%	(60%) 45%	(50%) 35%
Aid for the remediation of contaminated sites	100%	100%	100%
Aid for relocation of undertakings	70%	60%	50%

Note: The figures in brackets () indicate the ceilings provided by the 2008 guidelines (European Commission 2008b). Unless otherwise stated, the ceilings were valid in the 2008 and 2014 guidelines (European Commission 2014b). The figures in brackets [] indicate the notification ceilings specified in the 2008 GBER (European Commission 2008a).

In addition, the 2014 guidelines provided for additional incentives for undertakings located in less developed regions: the possibility of increasing the aid intensity by a bonus of 5% points in regions covered by Article 107(3)(c) or by a bonus of 15% points in regions covered by Article 107(3)(a) of the Treaty up to a maximum of 100% aid intensity.

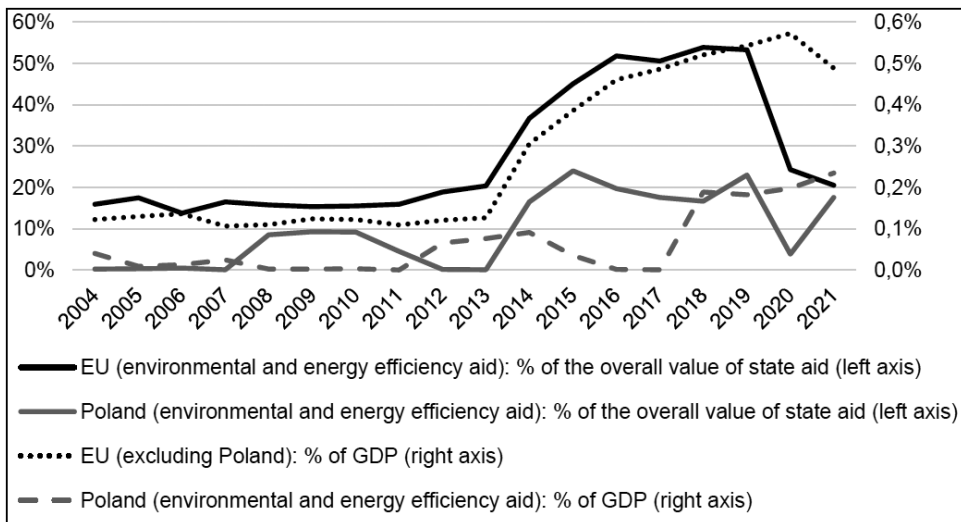
Financial aspects of state aid for environmental protection in Poland

Aid for environmental protection has been continuously monitored by the European Commission both in relation to pro-environmental measures and the energy sector, be-

cause this sector transformation indirectly contributes to environmental protection. In fact, the 2001 guidelines provided for aid for energy-saving investments (European Commission 2001), and since 2009, support for energy efficiency has been explicitly defined and disclosed in the GBER (European Commission 2008a). The Commission presents cumulative data on state aid in the EU for environmental protection and energy efficiency, so it is not possible to compare environmental aid alone in Poland to that in other Member States.

European Commission's data demonstrates that the value of aid for environmental protection and energy efficiency in Poland between 2004 and 2021 increased from EUR 10.6 million to EUR 1,850.3 million³. This represented a substantial increase both in relation to GDP (from 0.04 % to 0.24 %) and as a share of the overall aid value (from 0.3 % to 17.6 %) (see: *Figure 1*). However, most of these funds were ETS support related to energy investments. Analysing the cumulative value of aid for environmental protection and energy efficiency, a marked similarity to the EU figures can be observed (although at a slightly lower level for Poland), including a significant increase in the aid structure between 2014 and 2019 and in 2021.

Figure 1: State aid in Poland versus the European Union in the years 2004–2021.

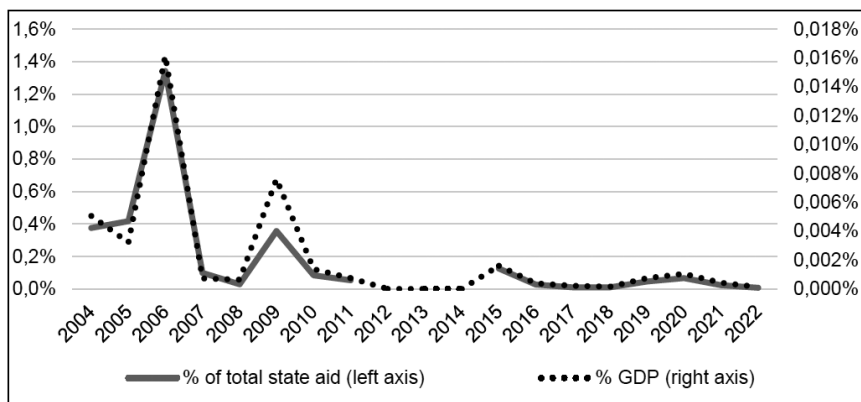


Source: authors' own calculations based on European Commission's data (see: European Commission 2023).

On the other hand, the exclusion of strictly environmental aid demonstrates that this category of aid, despite many legal acts defining and allowing state intervention, has not been a priority among support areas in Poland. Its value over the past ten years has not exceeded 0.2% of the overall annual value of state aid granted and 0.002% of GDP (see: *Figure 2*).

³ Source: authors' own calculations based on OCCP's data.

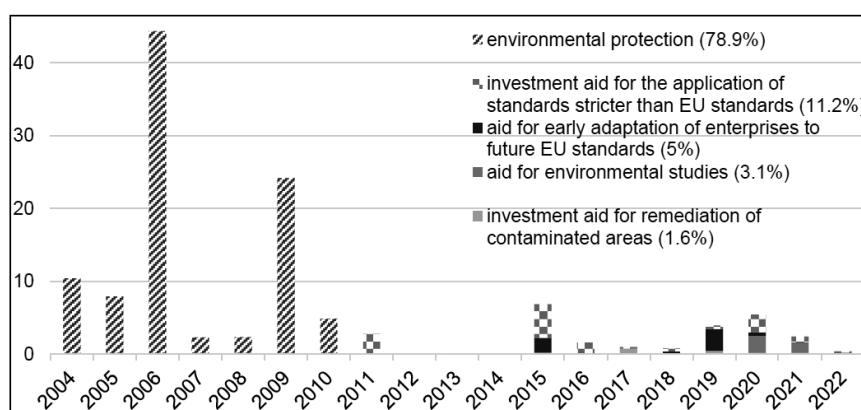
Figure 2: Share of environmental aid in Poland in the overall value of state aid and in GDP in the years 2004–2022.



Source: authors' own calculations based on OCCP's data.

The overall value of environmental aid granted in Poland in the years 2004–2022 amounted to EUR 122.2 million, of which nearly 80% was granted in the years 2004–2010 (EUR 96.4 million)⁴, however, due to the format of the reports, individual objective cannot be identified in accordance with the Commission guidelines. In the following years, new objectives emerged, dominated by investment support enabling undertakings to adapt to standards that go beyond the Community standards (11.2%) and aid for early adaptation (5%) (see: Figure 3). It is worth noting at this point that, first, the shares varied quite substantially from one year to the next and, in addition, no environmental aid was reported in 2013 and 2014.

Figure 3: Objectives of environmental aid in Poland in the years 2004–2022[EUR mln].



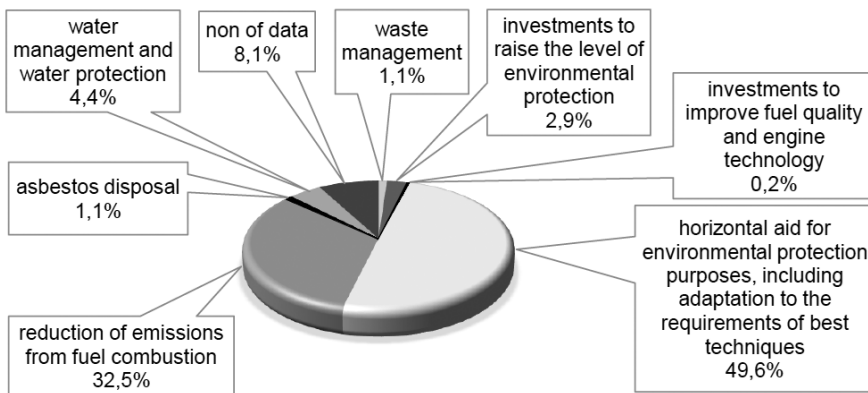
Note: The figures in brackets () indicate the share of objectives in the overall value of environmental aid in the years 2004–2022.

Source: authors' own calculations based on OCCP's data.

⁴ Source: authors' own calculations based on OCCP's data.

Taking into account the areas of support (rather than the objectives detailed in the Commission's guidelines), it can be seen that the largest share was allocated to aid aimed at adaptation to best techniques (34.4%) and reduction of fuel emissions (32.5%) (see: *Figure 4*). A much smaller share of the overall value of aid for environmental protection was recorded for aid for water resources management and water protection, which only occurred in the years 2004–2007. In turn, in the years 2017–2021, aid was allocated for asbestos removal, which was one of the measures included in the projects related to thermal renovation of residential buildings.

Figure 4: Areas of environmental aid intervention in Poland in the years 2004–2022.



Source: authors' own calculations based on OCCP's data.

Until Poland's accession to the EU, environmental aid had been provided primarily by the Environmental Protection Funds (EPF), which had European resources at their disposal. In addition, voivodships' marshals (VM) disbursed environmental aid funds in 2017, as part of the implementation of regional schemes from the 2014–2020 financial perspective. Also, it is worth noting that the share of national and foreign resources in the financing of state aid for environmental protection was at a similar level in the surveyed period, with 47% of aid provided by national funding (EUR 56.9 million) and 53% by EU funds (EUR 65.4 million).⁵

Table 2: Environmental aid schemes in Poland in the years 2004–2022.

Environmental aid schemes	Aid period (granting authority)	Gross value of state aid granted [EUR million]	Share in overall environmental aid [%]
PL 8/2004 (later N11/2007) – Horizontal aid scheme for investment in adaptation to best techniques 33/2004/K	2004–2010 (EPF)	42.0	34.4

⁵ Source: authors' own calculations based on OCCP's data.

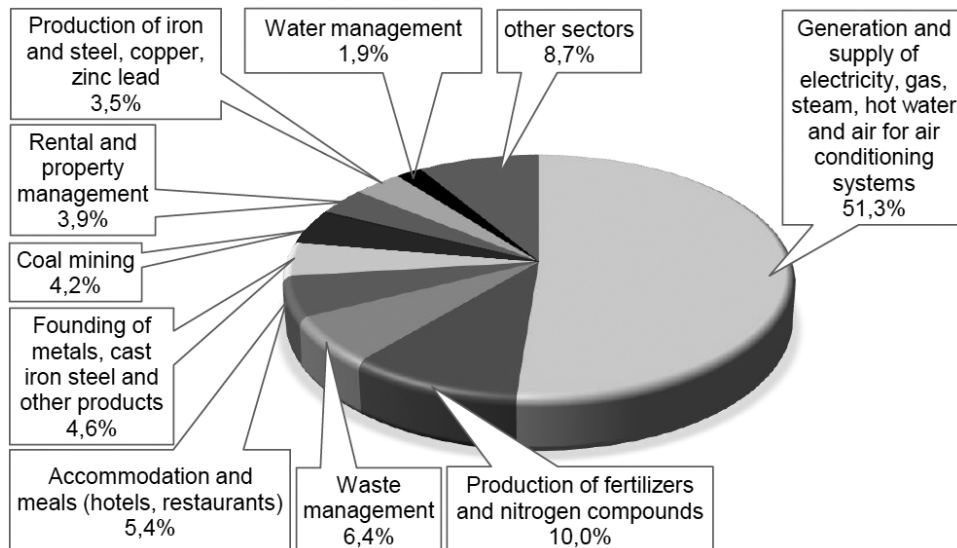
PL 12/2004 (later N10/2007) – Horizontal aid scheme for investment in reduction of emissions from fuel combustion sources	2005–2012 (EPF)	38.8	31.8
SA.36499(2013/N) (later SA.44685(2016/X), SA.61012(2021/X)) – Horizontal state aid scheme for certain environmental objectives as defined by the Regulation of the Minister of the Environment on the detailed conditions for granting horizontal state aid for environmental objectives	2015–2021 (EPF)	17.5	14.3
PL 5/2004 (later N4/2007) – Horizontal aid scheme for investment in protection of waters against pollution	2004–2007 (EPF)	5.2	4.3
SA.43908(2015/X) – Aid for investments to improve environmental protection under the regional operational programmes 2014–2020	2017–2020 (VM)	2.9	2.4
Other schemes		3.8	3.1
Other aid not allocated to any scheme	2004–2006	10.3	8.4
Individual aid (20 decisions)	2017–2021 (VM)	1.7	1.4
Total environmental aid	2004–2022	122.2	100

Note: Aid granting authority: EPF – Environmental Protection Funds, VM – voivodships' marshals.
Source: authors' own compilation based on OCCP's data.

Subsidies (68%) from Environmental Protection Funds (EUR 77.9 million) and voivodship marshals (EUR 4.7 million), as well as loans (primarily EPF funds – EUR 38.2 million) were the prevailing forms of environmental aid. Reductions in environmental charges or penalty reliefs accounted for approximately EUR 0.5 million.⁶

The primary beneficiaries of environmental aid were enterprises from the electricity and heat generation sector, which received EUR 62.7 million in aid (accounting for 51% of the overall amount of this aid category), and from the manufacture of fertilisers and nitrogen compounds, with EUR 12.2 million in aid (see: *Figure 5*). Large enterprises collectively received more than 80% of the environmental aid value, with more than a half of this aid granted to ten large enterprises, seven of which were active in the electricity or heat generation sector, two – in the manufacture of fertilisers and nitrogen compounds, and one – in coal mining.

⁶ Source: authors' own calculations based on OCCP's data.

Figure 5: Environmental aid in the years 2004–2022 by sectors of beneficiaries' activities.

Source: authors' own calculations based on OCCP's data.

Conclusions

In view of the EU's commitment to the environment protection, state aid for such measures could be a significant part of Member State intervention. This approach is justified insofar as the relevant provisions have been clarified in successive environmental state aid guidelines, and in the 2014 GBER the Commission exempted many categories of financial support from notification. However, this is not the case of Poland, where the overall value of this aid accounts for only 0.1% of the total value of state aid granted in Poland over the period under research. The largest portion of the aid was granted to large operators in the electricity and hot water generation and supply sector or in the manufacture of fertilisers and nitrogen compounds. The research has demonstrated that support was not ultimately given to all pre-settlers currently facing environmental challenges in the EU.

Particularly noteworthy is the high degree of cumulation to certain sectors and incidentality of environmental aid in Poland, both in terms of its objectives envisaged by the Commission and of support areas. This means that support did not follow a well-thought-out, coherent and systematic policy of supporting entrepreneurs, but is merely a collection of isolated interventions in the individual years in the period 2004–2022, depending on the availability of fund resources in the EU financial perspectives.

Furthermore, it should be emphasised that the EU rules are based on the "polluter pays" principle, which means that the aid could not be used to support companies' adaptation to existing environmental requirements. At the same time, the research results demonstrates that entrepreneurs in Poland have little interest in introducing solutions

that go beyond the required standards and in adapting their technologies to future environmental requirements. Thus, further tightening of existing standards may hinder the development of the Polish economy in those sectors, where activities have a direct impact on the environment.

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