



Availability of funds from the Cohesion Fund on environmental measures within OPI&E for 2014–2020 and the effectiveness of their use by municipalities in the field of water and sewage management

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ABSTRACT

Currently, there is already the third EU budgeting period for Poland, time of dynamic changes in our country. It should be noted that financial needs of local self-government units, as the lowest administrative structure level of the country, are still huge. For 2014–2020, there were planned subsequent programs, which are aimed to support specific fields of the economic activity of country, including environmental measures. Environmental projects carried out in 2004–2013 were mainly aimed to improve the water and sewage management, as well as waste management. In this period, there was built and modernized almost 36,000 km of sewer system, 12,000 km of water supply system, as well as built, expanded or modernized 683 municipal sewage treatment plants, which increased by about 63 number of cities supported by these installations. Funds granted Poland within the program as the EU's contribution in amount of 27,413.75 million euro, including for environmental measure in amount of 3,508.17 million euro, and then their use by self-government units can provide the quality of environmental management in these municipalities. This publication summarizes the extent to which funds declared within OPI&E on environmental measures have been allocated at this stage of budgeting. What proportion of projects has already been completed, and what is in the process of implementation. How many municipalities are active within individual provinces and carries environmental activities, and which are not, thus showing their effectiveness or ineffectiveness in the process.

Keywords: EU funds; Environmental management; Investments; Municipality

1. Introduction

Polish membership in the European Union results in many benefits, including financial, but imposes on the country numerous obligations, concerning standards in the environmental protection. Poland fulfills some of requirements with a surplus, as in case of greenhouse gas emissions, but many assumptions on environment protection still requires incurring high investment. Document "National Environmental Policy for 2009–2012 with the perspective to 2016" determined financial needs for measures taking into account investment directions in the environmental protection, in 2013–2016 on the level of 14.8 million euro [1]. According to data provided by the Central Statistical Office,

the average annual expenditure on fixed assets on environmental protection in recent years have had an upward trend and developed at the level of 3.3 million euro in 2014, and 3.6 million euro in 2015 [2]. Thanks to gained experience over the last few years in effective use of European funds, there are significant chances for successive implementation of next ecological undertakings. Currently, there is already the third budgeting period from the EU in which Poland has a chance to maintain a leadership position in implementation of the cohesion policy on the background of new Member States. Operational Program "Infrastructure and Environment" (OPI&E) for 2014–2020 is one of programs, which in a way is continuation of the program from 2007 to 2013 that enables implementation of large and costly investment. This program

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carries out objectives of the Partnership Agreement signed by the European Commission on 23 May 2014 as the strategic document defining priorities and implementation system of new European funds. These objectives include, as one of specific objectives, preservation and protection of the natural environment and supporting resource efficiency [3]. On the environmental protection within OPI&E from the Cohesion Fund (CF) provided 3.5 million euro [4]. Taking into account that there is already after the first half of budgeting period for 2014–2020, in the work has been conducted analysis of the effective use of EU funds on environmental measure within OPI&E by municipalities as a part of individual provinces, showing their management efficiency.

2. Distribution of financial resources on environmental measures within OPI&E

Poland maintained the status of the biggest beneficiary of European cohesion policy in 2014–2020 and for implementation of projects received a total of 82.5 million euro. The allocation of EU funds for countries who joined EU in 2004, and its dissemination for activities to environmental infrastructure, including water and sewage management, is presented in Table 1.

Granted Poland amount includes funding provided under national and regional programs, European Territorial Cooperation and funds provided under the instruments and programs managed directly by the European Commission. As a part of operational programs, the largest allocation accounted for 16 Regional Programs to a total of 31.2 million euro, and on the Infrastructure and Environment as the greatest program on the national level provided amount of 27.4 million euro [3]. OPI&E is financed both from the European Regional Development Fund and the CF. The structure of program consists of four main thematic objectives forming basic areas of intervention. Tasks are carried out as

a part of 10 priority axis aimed to reduce decarbonization of the economy, environmental protection – including adaptation to climate change, development of the environmentally friendly transport infrastructure and increase accessibility to Europe's transport network [4]. Moreover, implementation of the program is supposed to guarantee improvement in energy security, protection and development of cultural legacy, as well as strengthen strategic health infrastructures. Operations carried out under the program have been chosen to contribute to main achievement of the objective supporting economy that effectively use resources and is friendly to the environment, as well as supporting territorial and social cohesion [6]. The structure of operational program departs from sectoral activity understood as achievement of strategic objectives through accumulation of intervention in individual economic sectors, as in the previous EU budgeting period. Distribution of community funds within the program was included in Table 2.

In addition, within X priority has been provided 330.0 million euro on technical assistance for the entire program. The most of EU funds were allotted on development of road network. In the background were protection of cultural legacy and strengthening of health care infrastructure on which allocated only 3.4% of total resources from OPI&E. To finance investments in the field of environmental protection, including adaptation to climate change allocated 12.8% of program funds. They were distributed as part of five measures. Allocation of resources according to measures presents Table 3.

Twelve types of projects are carried out as part of 2.1 measures, from which two in competition procedure. The first type of competition projects – 2.1.2 is focused on tasks to achieve good water status. In turn, the second type of competition projects – 2.1.5 regards rainwater management system on urban areas, including construction, expansion or renovation of drainage networks and infrastructure [6]. In terms of 2.2 measures are carried out projects supported under the competition procedure, the aim of which is to reduce the amount of municipal waste subject to storage rationalization system of waste management. The subject of project is to provide an appropriate infrastructure for waste management, including installation for thermal processing of waste [6]. In turn, an aim of 2.3 measures of the II priority axis of OPI&E is to increase the number of population that uses improved system of urban waste water treatment, providing increased removal of nutrients. As part of measures are carried out two projects types selected under the competition procedure consisting in construction or modernization of the sewage treatment plant, sewage sludge disposal, or equipping the urbanized area with sewer system. The first type of projects regards water sewage system in agglomerations of at least 10,000 p.e. However, the second applies to projects undertaken in more developed regions in agglomerations of 2,000 p.e. up to 10,000 p.e. [6]. As regards to 2.4 measures, it supposed to contribute to strengthening mechanisms used for protection of nature by increasing the percentage of Nature 2000 areas covered by management plans and to increase the surface area of settlements supported in obtaining better protection status. Call for projects are held under competition and out-of-competition procedure [6]. As part of 2.5 measures are carried out projects associated

Table 1
Distribution of EU funds for 2014–2020 for countries who joined EU in 2004 [5]

Country	Funding from the EU	Intervention fields	
		Environmental infrastructure	Water and sewage management
	in million euro		
Cyprus	735	127	30
Czech Republic	21,980	818	498
Estonia	3,590	173	158
Hungary	21,910	1,312	1,057
Lithuania	6,820	449	359
Latvia	4,510	186	144
Malta	725	142	88
Poland	82,500	3,508	1,621
Slovenia	3,070	264	264
Slovakia	12,990	997	586

Table 2
Allocation of EU funds within OPI&E on individual priority axis and thematic objectives [7]

Priority axis	Thematic objective	EU funds in million euro
I Reduction of economy decarbonization	Supporting transition to low-carbon economy in all sectors	1,828.43
II Environmental protection, including adaptation to climate change	Promoting adaptation to climate change, risk prevention and risk management/preservation and protection of natural environment and supporting resource efficiency	3,508.17
III Development of road network TEN-T and multimodal transport	Promoting sustainable transport and removing bottlenecks in key network infrastructures	9,532.38
IV Road infrastructure for cities		2,970.31
V Development of rail transport in Poland		5,009.70
VI Development of low-carbon transport	Supporting transition to low-carbon economy in all sectors	2,299.18
VII Improvement of energy security	Promoting sustainable transport and removing bottlenecks in key network infrastructures	1,000.00
VIII Protection of cultural legacy	Preservation and protection of natural environment and supporting resource efficiency	467.30
IX Strengthening strategic infrastructure of health care	Promoting social inclusion, as well as combating poverty and all discrimination	468.28
X Technical support	Does not regard	330.00
Total		27,413.75

Table 3
Allocation of EU funds within OPI&E for the II priority axis [7]

Measures	Subject	Funding from the Cohesion Fund	National Public Funds	National Private Funds
		in million euro		
2.1	Adaptation to climate change along with protection and increase of resistance to natural disasters, particularly natural disasters and environmental monitoring	700.00	98.82	24.71
2.2	Management of municipal waste	821.78	0	145.02
2.3	Water and sewage management in urbanized areas	1,621.15	247.94	38.14
2.4	Nature protection and environmental education	146.00	25.76	0
2.5	Improvement of the quality of urban environment	219.24	26.95	11.73
Total		3,508.17	399.47	219.60

with inhibition of decline of green areas in cities, thanks to increasing the number of parks, greens and community greenery. Projects are carried out within three project types under the competition procedure [6]:

- Support for contaminated or degraded areas,
- Development of green areas in cities and their functional areas,
- Stocktaking of degraded and contaminated areas.

As a part of the II priority axis of OPI&E, the financial support from CF is directed only to public institutions. The managing authority of OPI&E is the Ministry of Development, which handled a part of its tasks to Intermediary Institutions retaining full responsibility for their implementation [8].

This Institution under the II axis is the Ministry of Environment, which handed a part of its tasks to individual Implementing Institutions in term of direct support [9] (Fig. 1).

As a result of activities taken by municipalities within the II priority axis of OPI&E, there has been expected among others [4]:

- preventing and mitigating key effects of such threats as flood phenomena resulting from climate change by investments in flood protection infrastructure,
- increasing the effectiveness of early warning system and forecasting threats, in particular in terms of increasing areas covered by flood risk monitoring system,
- limiting discharges of untreated and insufficiently treated wastewater,

- development of selective waste collection systems to ensure acquisition of recyclable waste,
- protection and restoring biodiversity, protection and reclamation of soil, as well as supporting ecosystem services, also through green infrastructure,
- improvement of the quality of urban environment, urban regeneration.

3. Analysis of the effective use of EU funds by municipalities within OPI&E

Thanks to implementation of the Cohesion Policy and taking defined measures in Poland, including on self-government levels, we are approaching to the objective, which is balanced development. However, it still poses a challenge particularly in relation to other countries of the European Union. Hence so important is correct diagnosis of the needs on the given level and implementation of necessary investments. OPI&E has an important role in financing undertakings, which in a significant way affect the improvement of natural environment. Individual projects and plans proposed in open competition organized by the Implementing Institutions are funded from the program. According to data from September 2017 under 2.1 measures of OPI&E, on the list of identified projects are 35 out-of-competition projects with estimated contribution of the European Union on a level of 527.47 million euro, from which currently implemented are 15 projects with funding of

329.61 million euro, which represents 62.5% of this value. In case of 2.4 measures, on the list are eight out-of-competition projects with estimated EU funding of 57.55 million euro. Implementation process as a part of this measure includes six projects with funding of 26.52 million euro, representing 46.1% of estimated value [10]. The situation looks a little bit differently in case of selections of projects under the competition procedure. To the end of June 2017, announced 26 calls for applications under the competition procedure for funding investment as a part of measures related to environmental protection [11]. This represents 40.0% of all competitions, which were announced in this period for the entire OPI&E. The most competitions under the II priority axis were announced in 2016 to the amount of funding 2.05 million euro. What is interesting is that only in this year first agreements with beneficiaries were signed and no project was yet completed (Table 4).

According to the state on 30 June 2017 within the II priority axis of the program, 770 applications were filed for funding projects in a total amount of 2.61 million euro [13]. As a part of 2.3 measures for first type of projects concerning the water and sewage system, carried out in agglomerations of at least 10,000 p.e. and 2.5 measures for second type of projects: Development of green areas in cities and their functional areas, amounts of funding from the EU much exceeded values determined in competition calls, classifying the part of projects on the reserve list. In case of the III call for 2.3 measures, this excess was 135.6%, and for 2.5 measures it

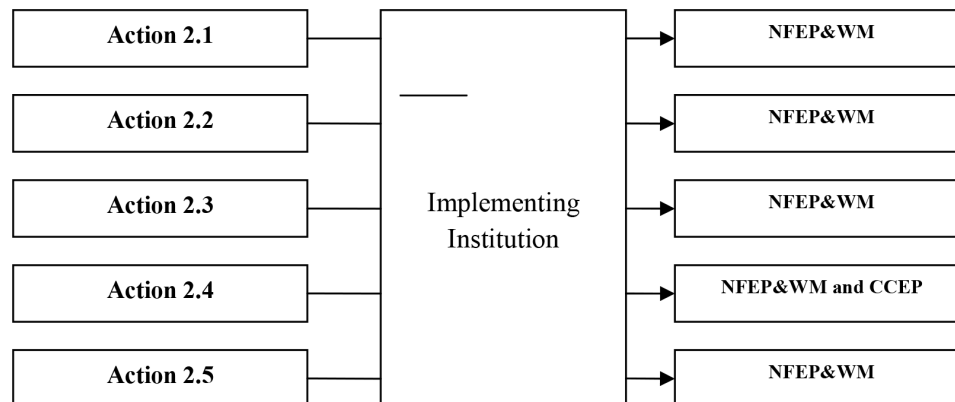


Fig. 1. Scheme of Implementing Institutions for OPI&E as a part of the II priority axis [9].

Table 4
Call for applications in competitions for the II priority axis of OPI&E in breakdown by years and measures [12]

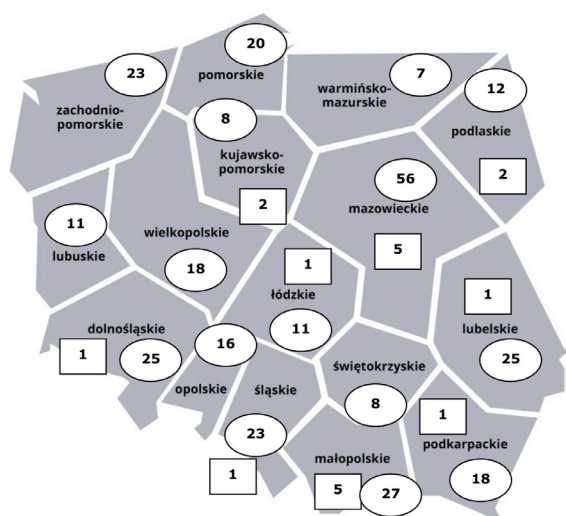
Action	2015		2016		The first half of 2017	
	Number of competitions announced	Amount for co-financing in million euro	Number of competitions announced	Amount for co-financing in million euro	Number of competitions announced	Amount for co-financing in million euro
2.1	–	–	3	140.24	–	–
2.2	1	23.37	3	771.30	–	–
2.3	1	701.18	2	1,051.77	–	–
2.4	3	18.08	6	42.74	3	37.16
2.5	1	19.63	2	48.70	1	46.75
Sum	6	762.26	16	2,054.75	4	83.91

was 756.3%, which provides great interest of entities in this type of projects. In the analyzed period under the II priority axis of OPI&E, there were signed 327 agreements with the European Union funding of 1.12 million euro. This means that the level of using allocation for the II axis of OPI&E, measured with contracting funds, was 31.2%. The most agreements in the analyzed period were signed as a part of 2.3 measures – water and sewage system in agglomerations, and the least as a part of 2.2 measures – municipal waste-management. Importantly, both types of measures are aimed only to implementations of projects, which beneficiaries are self-government units and their associations, as well as entities providing the public service as a part of implementation of self-government unit’s obligations (Table 5).

Analyzing the dispersion of carried out environmental projects between individual provinces in the country, it is possible to notice that the most signed agreements are in Mazovian Province, next already half less in the Lesser Poland Province. In turn, the least signed agreements were in Warmian-Masurian and Swietokrzyskie Province (Fig. 2). Comparing the use of EU funds as a part of OPI&E from

Table 5
Data on the number of signed agreements and funding values from the EU under the II Priority Axis of OPI&E on 06 July 2017 [13]

II Priority Axis	Contracts concluded for co-financing	Value of EU funding in million euro
Action 2.1	7	64.39
Action 2.2	3	4.38
Action 2.3	208	941.31
Action 2.4	67	34.93
Action 2.5	42	50.54



○ Projects implemented under one province
□ Projects implemented in several provinces

Fig. 2. Number of approved projects in individual provinces on 06 July 2017 [15].

2007–2013, it is possible to notice a certain analogy, when in terms of environment sector, the most agreements were signed in Mazovian Province, and the least among others in Swietokrzyskie Province [14].

At the same time, the most of EU funds on environmental protection in within OPI&E for 2014–2020 was contracted in Mazovian Province, next in Silesian Province, and the least in Warmian-Masurian and Podlaskie Province. Fig. 3 presents this data.

The value of funding from the EU as a part of contracted agreements in relation to eligible expenses was 85.0%, that is, according to determined assumptions by OPI&E. In turn, in relation to total value of projects, the average value of funding from the CF for the II axis of OPI&E was 62.8%. The value of EU funding below this size was in 11 provinces. These projects concerned mainly measures from the scope of water and sewage system (2.3 measure), where the average value of EU funding counted in relation to the total value of projects was 54.8%.

Analyzing the degree of using allocation of EU funds assigned for each measure of the II priority axis of OPI&E under competition procedure, based on signed agreements, it is possible to notice that currently is at low level. Only the degree of using allocation on 2.3 measures implementing projects by municipalities and entities providing public service for municipalities in terms of water and sewage system is high and was 58.1%. The extreme lowest use of allocation applies to 2.2 measures funding projects in the waste disposal and it is only on a level of 0.5%. Fig. 4 presents this data.

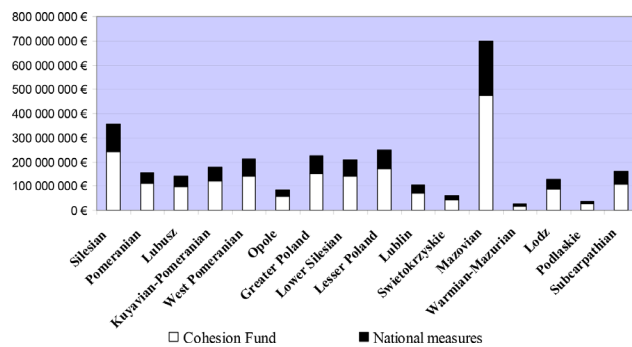


Fig. 3. Contracted EU funds within individual provinces on 06 July 2017 [15].

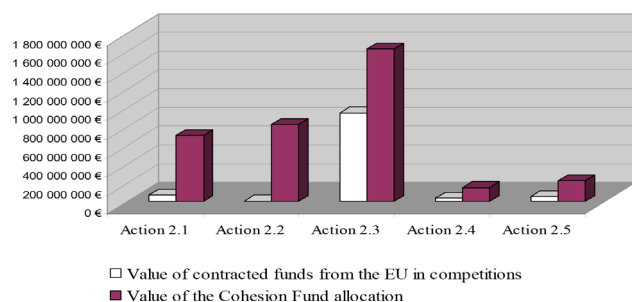


Fig. 4. Percentage of the EU commitments implementation in OPI&E for the II priority axis in relation to individual measures on 06 July 2017 [15].

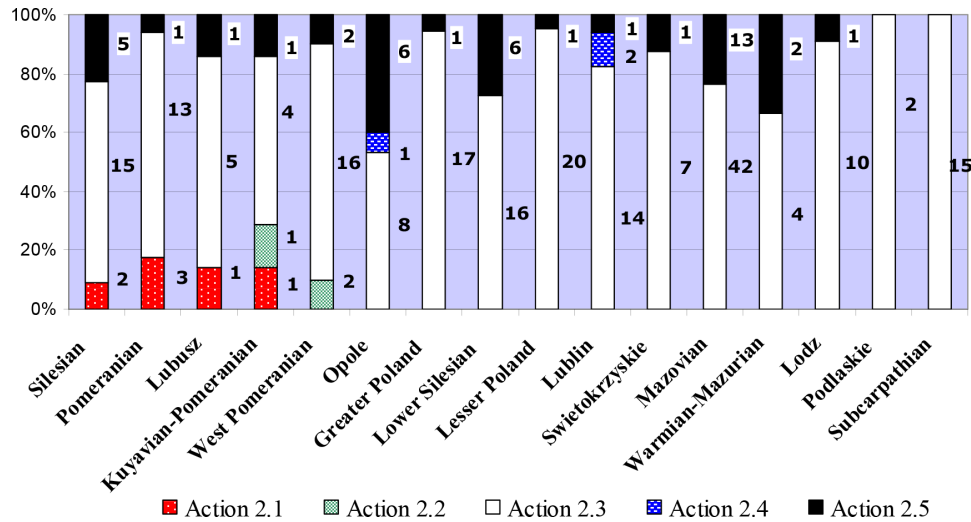


Fig. 5. Number of signed agreements by municipalities and entities providing public service as a part of municipality tasks for the second axis of OPI&E in individual provinces on 06 July 2017 [15].

It is possible to notice that self-government units are effective in obtaining EU funds; they have extensive knowledge and experience in preparation of applications for EU funding gained from earlier years. It is provided by the number of submitted applications by the municipalities, and a small proportion of rejected applications after the formal evaluation. However, it should be noted that there is already second-half of budgeting period, and the number of contracted agreements by municipalities peculiarly as a part of 2.2 measure is very low. Only two municipalities in West Pomeranian Province and one in Kuyavian-Pomeranian Province are currently carrying out projects under this measure concerning the construction points of selective waste collection with funding from the CF on a level of 1.01 million euro in Kuyavian-Pomeranian Province, and 3.38 million euro in West Pomeranian. Fig. 5 presents these sizes.

Environmental investments as a part of 2.1 measures are carried out only by municipalities in four provinces, including the most in Pomeranian Province in terms of storm water management with funding from the EU on a level of 26.23 million euro. In turn, the most environmental projects as a part of 2.3 measures are carried out by municipalities in Mazovian Province, including 27 projects with funding for first type of investments carried out in agglomerations of at least 10,000 p.e. – 209.76 million euro and 15 projects for second type of investments carried out in agglomerations of about 2 000 up to 10,000 p.e., directed to better developed regions – 18.81 million euro. The least projects as a part of this measure are carried out in Podlaskie Province, because only two, which are also the only projects currently undertaken by municipalities in the environmental protection in this province, with funding partially from the EU – 9.34 million euro. In case of 2.4 measures, only 3 projects are carried out by municipalities with funding from the CF – 1.55 million euro. Other 64 projects as a part of this measure are carried out by national parks, foundations and associations. In turn, projects carried out by municipalities as a part of 2.5 measures concerning improvement of the quality of urban environment are carried out above all in Mazovian Province, next in Lower

Silesian Province with funding from the EU – 6.39 million euro and in Opole Province on a level of 2.22 million euro. Municipalities in seven provinces are carrying out only one project in this measure.

4. Conclusions

Limiting the use of resources and reduction of substance emissions in natural environment still poses a challenge in implementation process of the principles of sustainable development in economy, and at the same time mobilizes municipalities to implement necessary environmental investments. The analysis shows that by the end of first half of 2017 under environmental activities of OPI&E for 2014–2020, municipalities carried out 263 projects selected in competition procedure. No project in this period was yet completed, bearing in mind that the first agreements were signed in 2016, that is, in the third year of program. The value of funding from the CF as a part of contracted agreements amounted 1,060.92 million euro. Municipalities of Mazovian, Lower Silesian and Silesian Province turned out to be the most effective in raising funds for ecological activities. At this stage, municipalities from Podlaskie, Warmian-Masurian and Lubusz Province turned out to be the least effective in ecological management. It is necessary to make every effort to change this situation in the second half of budgeting and to use available funds for activities relating to protection of natural environment, which gives OPI&E. The more that all contracted agreements in analyzed period were only on a level of 31.2% granted allocation from the CF for the II priority axis of OPI&E. However, the effects of current municipality activities and entities providing public service as a part of implementation of own obligations by self-government units, are among others:

- 7 projects related to construction of new and improvement of existing rainwater drainage system,
- 2 projects related to construction of municipal waste selective collection points in 13 municipalities,
- 98 projects related to construction, expansion and modernization of the sewage treatment plant,

- 151 projects related to construction of sanitary sewage system and water supply system,
- 42 projects in comprehensive development of green areas in municipalities, which provides an effective environmental management in these municipalities.

Abbreviations

OPI&E	–	Operational Program Infrastructure and Environment
CF	–	Cohesion Fund
NFEP&WM	–	National Fund of Environmental Protection and Water Management
CCEP	–	Coordination Center of Environmental Projects

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