



## The effective use of EU funds for environmental activities in the Operational Program Infrastructure and Environment (OP I&E)

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Received 18 March 2013; Accepted 1 October 2013

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### ABSTRACT

Polish accession to the European Union in 2004 initiated in our country a number of positive changes. In 2013, another period of funding from the budget of European Union passes, this time a seven-year period. There were planned several programs for 2007–2013 to help in various areas such as economy, science, as well as activities for environmental protection. Such programs include Operational Program Infrastructure and Environment (OP I&E). Under it one could get funding from the European Regional Development Fund and the Cohesion Fund. A high level of environmental protection is one of the priority objectives of the European Union. Therefore, so important is to realize actions that positively contribute to the improvement of the environment, which is the main task of the OP I&E. The activities realized under the program are monitored by the Ministry of the Environment as an Intermediary Institution being responsible for the supervision of the priorities in the environmental sector. A high percentage of use of the allocation of EU funds can attest to the effectiveness of the entities in obtaining co-funding for environmental projects. To gain funds, it is important to have an actual knowledge and understanding of all necessary application documents and one should have skills to be able to draw up the proposal. Taking everything into consideration, it gives potential beneficiaries an opportunity of obtaining EU funding for the projects. The publication aims at summarizing to what extent the funds allocated for environmental projects under the OP I&E had a positive impact on the environment in our country, what has been achieved and what remains to be done in the upcoming period.

*Keywords:* Environment; EU funds; Operational program; Investments; Community; Business

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*Presented at the 11th Scientific Conference on Microcontaminants in Human Environment. 25–27 September 2013, Wisla, Poland  
Organized by Department of Chemistry, Water and Wastewater Technology,  
Faculty of Environmental Engineering and Biotechnology, Częstochowa University of Technology*

## 1. Introduction

The need to promote various environmental activities in Poland is still huge. Implementation of the objectives of environmental policy, which was adopted for the period 2009–2012 and the following years assumed to incur high capital expenditures. It was estimated that the expenditures required to complete the tasks in the first four years would amount to PLN 66.2 billion and during the following years up to 2016 PLN 63.5 billion [1]. This meant that the annual expenditures on environmental protection and water management will have to increase in the period 2009–2016, in order to ensure sufficient resources for the implementation of environmental policy objectives. Average annual capital expenditure incurred for environmental protection and water management in recent years showed an upward trend and stood, respectively, at PLN 13.5 billion in 2009, PLN 14.5 billion in 2010 and in 2011 year PLN 15.3 billion [2]. However, the needs were estimated at an average of PLN 16 billion per year. Then, it is important to use available financial resources, including EU funds skillfully. The Operational Program Infrastructure and Environment (OP I&E) was one of the programs planned for 2007–2013 supporting environmental activities in Poland. It accomplishes the objectives of the National Cohesion Strategy as a strategic document setting out priorities and areas of use and the implementation of the system of EU funds under the Community budget. The purposes of that rank are one of the specific objectives included in the environmental improvement co-financing by the European Regional Development Fund and the Cohesion Fund. On the activities of the OP I&E for 2007–2013, 28.3 billion EUR was provided of which environmental projects were planned at EUR 5.1 billion [3]. The article analyzes the effectiveness of the use of EU funds for environmental activities under OP I&E program, it shows what has been achieved and points out what remains to be done.

## 2. OP I&E and allocation of funds for environmental activities

Poland has been the largest beneficiary of EU cohesion policy in the period of 2007–2013. Under this framework, a total of EUR 67 billion was assigned and divided into ERDF, ESF, and the Cohesion Funds. Poland achieved more than 20% of all funds allocated from the EU budget for the implementation of cohesion policy in this period [4]. The objectives set out in the National Strategic Reference Framework on the use of EU funds were realized in the form of opera-

tional programs. One of them was the OP I&E, which in contrast to other programs was funded both by the ERDF and the Cohesion Fund [4]. The main objective of the program was to increase the investment attractiveness of Poland and its regions through the development of technical infrastructure while protecting and improving the environment, health, preservation of cultural identity, and developing territorial cohesion. This program has been implemented in 15 priority axes. The first 13 priorities of the OP I&E have covered six sectors: transport, environment, energy, culture, higher education, and health [3]. This allocation is presented in Table 1.

In addition, in the XIV and XV priority—PLN 437.76 million has been provided for technical assistance. Most of the EU funds were allocated to transport. The higher education, culture, and health accounted for just 5.4% of the total OP I&E. To finance investments in the environment sector, 17.9% of the program was allocated. They were distributed within five priorities. Allocation of funds according to priorities is given in Table 2.

Most of the funds were from the EU Cohesion Fund (EUR 4 726.47 million), representing 16.7% of total EU funds earmarked for the implementation of all the priorities of the OP I&E.

Under the Priority I only one action was realized in sector of water and sewage management in agglomerations above 15,000 ENI. The main objective of this activity was to equip agglomeration in the sewage systems and sewage treatment plants, according to the accession requirements imposed on Poland by the European Union. According to the National Cohesion Strategy, the number of people using the wastewater treatment plants in urban and rural areas should increase in 2013 to 90 and 30%, respectively [4].

In terms of Priority II projects, the two actions were supported. It concerned among the other things [3]:

Table 1  
Distribution of EU funds under OP I&E in individual sectors of the economy [3]

Sector of the economy	Priority axis	Million euro
Transport	VI–VIII	19,575.83
Environment	I–V	5,066.27
Energetics	IX–X	1,722.31
Higher Education	XIII	586.51
Culture	XI	553.56
Health	XII	395.72

Table 2  
Distribution of EU funds in the environmental sector OP I&E [3]

Axis	Environmental priorities	EU funds (million euro)	
		European Regional Development Fund	Cohesion Fund
I	Water and sewage management		3,142.82
II	Waste management and protection of the earth		1,026.86
III	Resource management and environmental threats		556.79
IV	Adjusting enterprises to the requirements of environmental protection	250.00	
V	Protection of nature and the development of ecological attitude	89.80	

- (a) prevention and reduction of waste generation,
- (b) implementation of recovery technologies, including recycling,
- (c) elimination of threats arising from the storage of waste,
- (d) restoration of degraded land,
- (e) coastal protection.

The objective of Priority Axis III OP I&E was to ensure sufficient water resources to meet the needs of the population and the economy of the country, as well as to minimize the negative effects of natural phenomena. With regard to this priority three actions were executed [3]:

- (a) water retention and assurance the flood security,
- (b) prevention and mitigation of natural threats and counteraction of serious accidents,
- (c) environmental monitoring.

Priority IV aimed to contribute reducing the negative impacts of existing industrial activities on the environment and adapt the businesses to the requirements of Community law. Under the priority, the projects implemented were designed to: reduce the pollutants emitted into the atmosphere and discharged with sewage and reduce the amount of waste undergoing the process of recovery. In addition the projects

were financed in the field of implementation of environmental management systems and protection of air which contributes to reducing the amount of dust. Priority has been divided into six activities in which one can get funding from the ERDF [5].

Under the Priority V, actions were related to the social habits to protect the environment, nature protection, and landscape conservation. The objective of that priority was to reduce environmental degradation and loss of biodiversity resources. Financial support could be achieved on investments whose purpose was to preserve endangered species and genetic diversity of plants, animals, and mushrooms, to restore patency of ecological corridors and restoration of degraded forest habitats [3].

Priority I–III and V mainly subsidized projects carried out by public institutions, and the priority IV subsidized projects carried out by the small, medium, and large enterprises.

The Managing Institution of OP I&E is the minister responsible for regional development, which provided some of its tasks to Intermediary Institutions. The institution responsible for supervising the implementation of the Priorities I–V for environmental protection is the Minister of the Environment, which provided some of their tasks to each Implementing Institutions, called the 2nd level Intermediary institution (see Fig. 1).

As a result of actions taken under OP I&E of environmental sector was expected to achieve such products as [6]:

- (a) 120 new wastewater treatment plant,
- (b) 20 new trans-regional waste management facilities,
- (c) 5.5 million people covered by the municipal system waste management,
- (d) reduction of waste storage level from 79 to 50%,
- (e) 380 newly built objects small retention,
- (f) 494 positions to analyze and respond to the risk of natural disasters,
- (g) 135 large enterprises supported by the environmental management system.

### 3. Analysis of the effectiveness of the use of EU funds for environmental activities in the OP I&E

In 2013 another period passes, this time a seven-year period of funding from the budget of European Union. That is the time to make the summaries, what has been achieved as planned and what remains to be done. Investments supported by the EU funds under the environmental priorities of the OP I&E in a significant way are contributing to improving the environ-

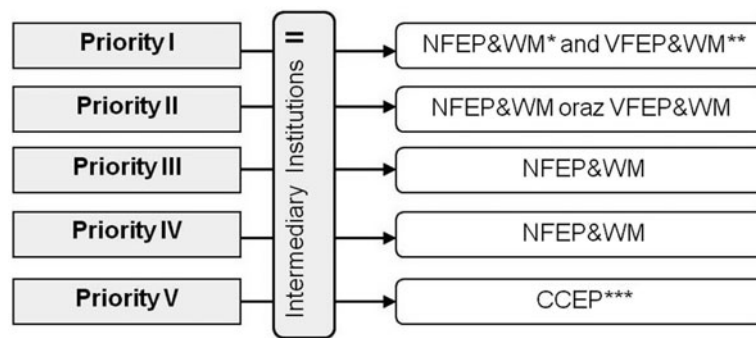


Fig. 1. Diagram of the Intermediary Institutions II level for OP I&E—environment sector (\*The National Fund of Environmental Protection and Water Management, \*\*Voivodship Funds of Environmental Protection and Water Management, \*\*\*The Coordination Center of Environmental Projects).

ment. The program finances individual projects and projects submitted in the competitions announced by the Implementing Institutions. To the end of 2012, there was announced 55 competitions for co-funding investments in the environmental sector [7]. This represents 66.3% of all competitions which was announced at that time in the OP I&E. In addition, three competitions within the priority I and II, one in every action in 2013 are planned [8]. On 31 December 2012, under the whole program 3,095 applications of co-funding were formally approved on the total amount of PLN 168.5 billion. Institutions engaged in the assessment of applications approved only 2,038 applications for the grant amount PLN 140.3 billion. The percentage of rejected applications was large and amounted to over 40% [9]. However, during this period, 1903 agreements were signed worth of co-financing from EU at the level PLN 98.5 billion. In the environmental sector, 651 contracts were signed with a value of co-financing from the EU at PLN 18.7 billion. This amount represents 89.8% of the allocation granted to the beneficiaries of EU funds for this sector in the OP I&E [10]. In the environmental sector, the value of EU funding for individual projects was PLN 9.6 billion, which

accounts for nearly 46% of the allocation for this sector. Since at the end of December 2012, with the beneficiaries of the environmental sector, 72 agreements were signed with the EU support values of about PLN 9.1 billion, which accounts for nearly 95% of the estimated amount of EU funding. On the other hand, upon settlement of competitions in the field of environment, 579 contracts were signed, on the amount of support from EU funds at PLN 9.6 billion [9]. Changes of the data in these values over the duration of the OP I&E are shown in Table 3.

These data suggest that the turning point was the year 2009 and 2010, when the number of signed contracts of co-funding rose sharply. In addition, most of the applications were submitted in 2009, which should be linked with the amount of announced competitions in this period. The number was 21, which represents 38% of all the competitions announced in the environmental sector by the end of 2012. In 2010, there were signed most of the agreements of EU funding (222 agreements), in the amount of PLN 7.2 billion, which represents approximately 35% of the total allocation to the environment sector of the OP I&E from EU funds.

Table 3

Basic data on the number of completed projects in the environmental sector OP I&E to 31 December 2012 included cumulatively [10]

Year	Environmental sector			
	Applications made after formal evaluation		Concluded agreements for financing	
	Number	Value of the grant (PLN)	Number	Value of the grant EU (PLN)
2012	1,187	31,842,218,474.20	651	18,678,424,497.40
2011	932	29,264,995,708.93	548	16,999,081,163.77
2010	858	23,795,500,724.46	421	13,038,193,187.58
2009	627	15,603,267,842.30	199	5,829,012,999.41
2008	265	6,359,206,219.18	1	44,293,160.00

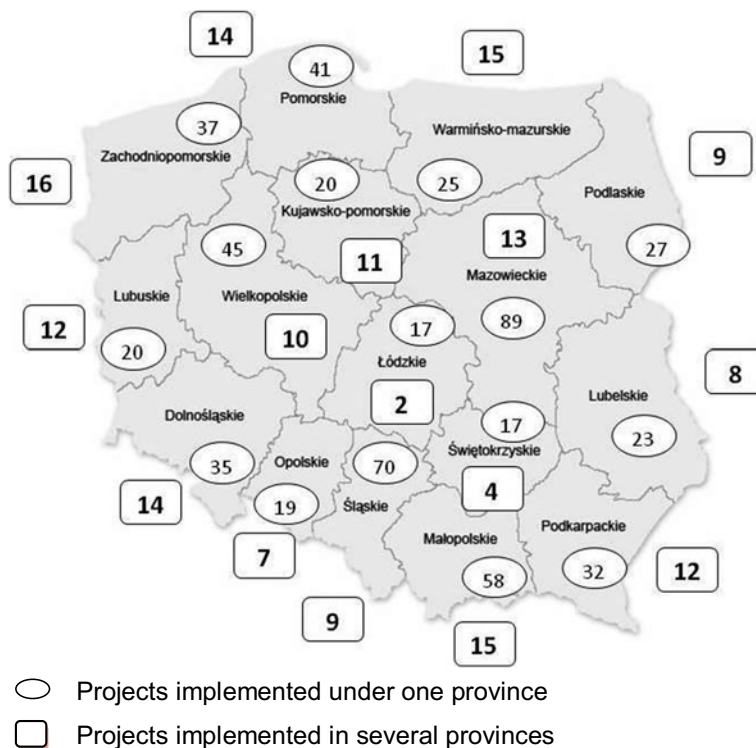


Fig. 2. Number of approved projects in each voivodship (31 December 2012) [11].

Analyzing the dispersal of implemented environmental projects between the individual voivodships in Poland, one could notice that most of the agreements were signed in the Mazovia voivodship and the region of Silesia. On the other hand, in the Lodz Region, Świętokrzyskie, and Opole, the number of approved projects were the lowest (see Fig. 2).

At the same time, the most of the EU funds was contracted under OP I&E in the environmental sector in Silesia and Mazovia Regions. The least EU funds was contracted in Podkarpackie, Podlaskie, and Lodz Regions (Fig. 3).

The average value of co-funding from EU under the agreements contracted in the voivodships was 46.2%. The value of co-funding from EU below this size were in 10 voivodships, and in the remaining six was higher, with the highest share of 58% in the Pom-eranian voivodship.

Analyzing the degree of EU funds allocation for each priority in the environment, based on contracts signed, it should be noted that it is quite high. It is above 80% in each priority. The highest allocation is applied to Priority III—Resource management and counteracting environmental risks, and the lowest to

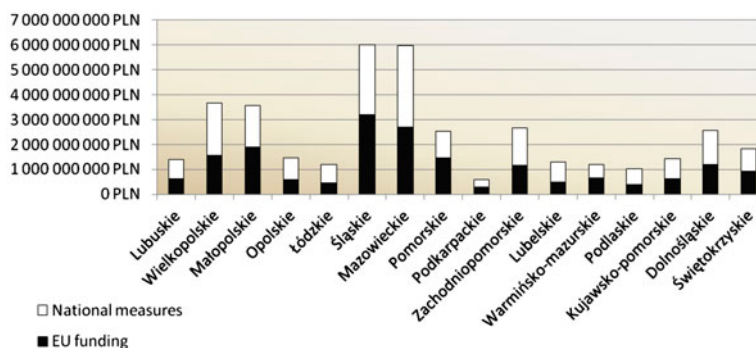


Fig. 3. EU funds contracted within individual voivodship as of 31 December 2012 [11].



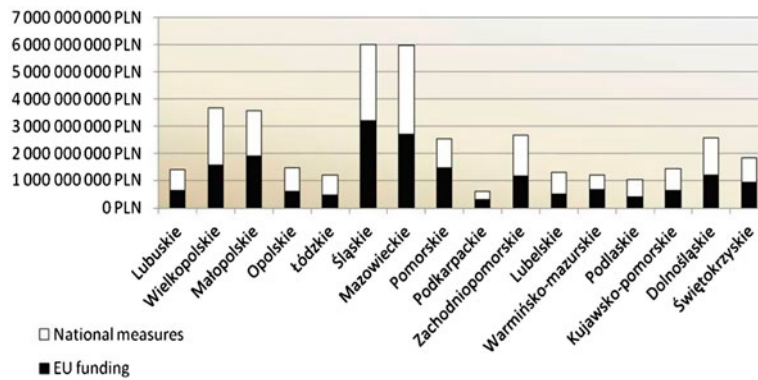


Fig. 4. Percent of the commitments execution of the EU in the OP I&E in the environmental sector for the individual priorities as of 31 December 2012 [10].

Priority IV which was financing the projects for the adaptation of enterprises to the requirements of environmental protection. These values are shown in Fig. 4.

It can be said that the entities are successful in obtaining EU funds, thus they have knowledge and skills necessary when preparing grant applications. However, the budgeting period comes to an end and there is little time to use the remaining of the EU funds. Disturbing is the fact that the expenditure presented by the beneficiaries under the eligible expenditure in the part EU are not at a satisfactory level. This is a very important issue and an evidence of the scale in project delays. It is necessary to make changes, because it maybe proved that the EU funds allocated to Poland, despite signed agreements with the EU, will not be fully used. The value of reported expendi-

ture by the beneficiaries under the eligible expenditure in the part EU was less than 32%, which is only PLN 5.9 billion. These values are shown in Fig. 5.

The analysis of the data showed that till the end of 2012, 285 projects were finished in the environmental sector, which accounted for 43.8% of signed contracts. These projects were funded from EU in the amount of PLN 1.9 billion. Most of the projects were implemented under Priority IV, and least in the Priority II. However, most of the funding from EU was obtained in the framework of the projects from Priority I, where major projects dominate, and followed projects from Priority IV (Table 4).

In addition, allocation of these resources for each region is shown in Fig. 6.

Most of the EU funds under the environmental projects which were completed by the end of December 2012, were gained in Western Pomerania Region. It is PLN 417 million, which represents 35.6% of the allocation of the contracts signed in the region and in Pomerania Region on amount of PLN 357 million, which is 24.5% allocation of the contracts signed in this voivodship. The fewest EU funds were gained in this period in the Lodz Region and Świętokrzyskie, below PLN 13

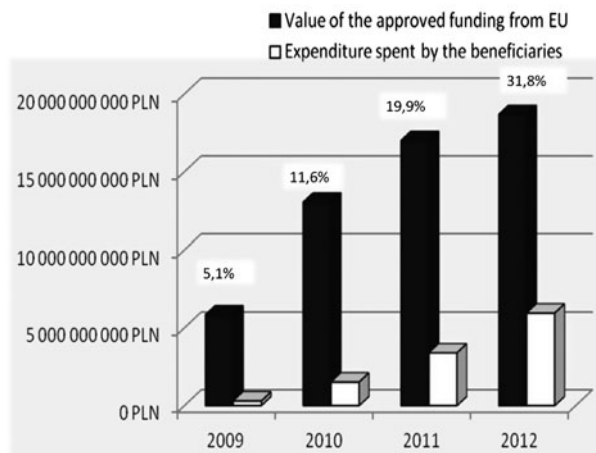


Fig. 5. Level of spending of EU funds by the beneficiaries in subsequent years in the environmental sector, included cumulatively [10].

Table 4

The number of completed projects under each priority of OP I&E and value of EU funding as of 31 December 2012 [11]

	Number of projects completed	EU funding [PLN]
Priority I	49	889,743,453.63
Priority II	8	346,720,547.62
Priority III	2	59,909,937.71
Priority IV	172	521,584,962.80
Priority V	54	112,394,896.10

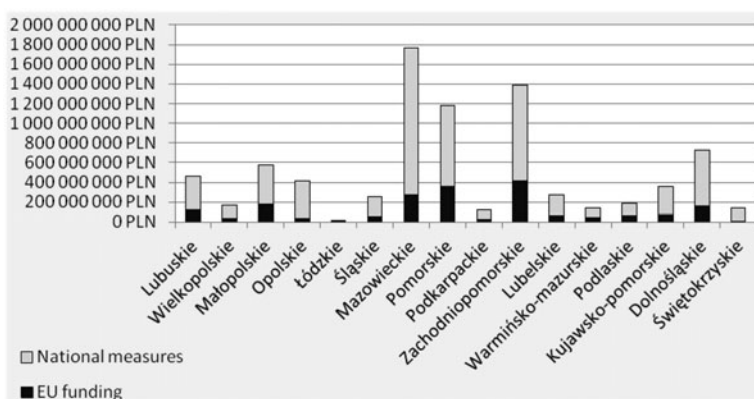


Fig. 6. The value of the EU funds in projects completed as of 31 December 2012, broken down by voivodships [11].

million representing the value of an average of 1.5% under the signed contracts in these voivodships.

It is estimated that Poland may have a difficulty in taking full advantage of EU funds which were planned in the OP I&E in the environmental sector. In the theoretical model, for the values of irregularities in an optimistic scenario for the environmental sector it is forecasted that about PLN 156 million will be not used and in the pessimistic one 312 million PLN. This represents a pessimistic scenario of 6.5% of the total allocation under the environment sector of the OP I&E. This is mainly due to the problems which the beneficiaries have had during the implementation of projects involving correct execution of public procurement. Transgressions of the law on public procurement resulted in the need to reduce refunds. This had a negative impact on the level of the absorption of funds granted to Poland under the OP I&E [12]. The effect of this measure is to increase the cost in the realization of the projects funded by beneficiaries from their own funds.

#### 4. Summary

The positive effect associated with the availability of EU funds has been an increase in environmental protection awareness of local authorities, administrations and businesses. In addition, a grant meant that a significant effort was made on their part regarding the need to learn quickly some new legal regulations, related not only to the environmental protection but also to the area of competition and other EU horizontal policies. Besides the opportunity of obtaining grants has mobilized entities to seek its own resources, without which the EU funding is not possible. On the basis of the conducted analysis, it should be noted that the actions to protect the

environment in OP I&E are implemented in an effective way. This is confirmed by high degree of EU funds contracted at nearly 90% of the available allocation. The only disturbing fact is low level of expenditure reported by the beneficiaries, which is at nearly 32%. Now it is the most important goal for the next few months and the next two years, in the settlement system  $n+2$ , to fully succeed in using the EU funds allocated to Poland for environmental activities. However, in the framework of the approved projects in OP I&E, the following were implemented and are underway:

- (a) 136 projects for the construction and modernization of wastewater treatment plants,
- (b) 24 projects for the construction of new waste management facilities,
- (c) 24 projects of comprehensive protection against natural hazards,
- (d) 357 positions to analyze and respond to the risk of natural disasters,
- (e) 100 companies supported by the environmental management system,

which confirms the achievement of the established effects in the environment with the participation of EU funds at a good level.

#### Abbreviations

OP I&E	—	Operational Program Infrastructure and Environment
ERDF	—	European Regional Development Fund
ESF	—	European Social Fund
ENI	—	Equivalent Number of Inhabitants
NFEP&WM	—	National Fund of Environmental Protection and Water Management

VFEP&WM — Voivodship Fund of Environmental Protection and Water Management  
 CCEP — Coordination Center of Environmental Projects

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