

# OFFER FUNDING FOR ENVIRONMENTAL PROTECTION IN ROMANIA

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**Abstract:** *The funding offer for the environmental protection projects depends on the identification of the environmental conditions underlying the decision-making, in other words, admitting the issue; the design phase, covering the elaboration, development and analysis of various potential courses of action; the selection phase, which results in assessing the options and selecting the best alternatives developed in the design phase; the implementation phase, which means putting the solution into practice and the control phase, resulting in monitoring the results and making the necessary adjustments, if appropriate. Therefore, the starting point is the identification and estimation of the environmental protection funding offer.*

**Keywords:** funding sources, funding instruments, funding institutions, environmental, environmental protection.

**JEL Classification:** G23, Q56

## 1. Introduction

The environmental protection funding offer requires the identification of:

- a) *funding sources*;
- b) *instruments* for implementing the environmental investment projects in order to meet the objectives;
- c) *institutions* providing the funding for the implementation of the environmental protection projects.

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a) The main priority is *identifying* the potential funding *sources*, for the environmental projects have different objectives and thus the efficiency of potential funding methods depends on the type and objectives of the project.

The main funding sources are:

- *Internal sources* (Platon, V., 2004): (central / local) budget; (central and local) taxes and tariffs; environmental taxes and tariffs; pollution fees; property taxes; donations; population income; proceeds and development funds; public – private partnership agreements; internal loans (financial and banking institutions); fines / penalties; general obligation bonds; income bonds, other sources.

For Romania, the main internal sources are the *state budget* and *own resources*.

- *External sources* (Platon, V., 2004, p.26-28): foreign investments; donations; grants (funds allocated by national authorities or other institutions to support special projects); EU contributions through structural instruments (the European Regional Development Fund, the Cohesion Fund); special Funds (the Multilateral Fund, bilateral relations and the like); EC non-refundable funds for various EU programmes; refundable investment external loans from international financial and banking institutions as the European Investment Bank, the European Bank for Reconstruction and Development, World Bank and the like).

The external funding sources identified by the Ministry of Environment as the most suitable partners for co-financing the EU programmes on environmental projects are the international financial institutions which grant *external loans* through the Social Development Fund of the Council of Europe; the European Bank for Reconstruction and Development; European Investment Bank; World Bank through Global Environment Facility; United Nations Development Programme; bilateral donors (Piciu, G., 2001).

b) The implementation of environmental investment projects requires the design of specific funding instruments.

The main European funding instruments for the Romanian environmental sector are the *European Regional Development Fund* and the *Cohesion Fund*.

In our country, the most well-known environmental protection instrument is the *Environment Fund* meant to meet the public interest environmental protection objectives. The Environmental Fund is a deductible public fund; its income is public and part of the consolidated general budget. The Fund is managed by the Environment Fund Administration. The income collected within the Environment Fund may be subsequently used in environmental protection investment projects. Most resources come from privatisation, taxes, excises, vehicle registration fees.

c) The main funding institutions are the *Environment Fund Administration, the Authority for Coordination of Structural Funds and the Management Authority for the Sectoral Operational Programme on the Environment*.

The funding offer is based on the *needs identified* by the economic operators; non-governmental organisations; administrative and territorial units; educational units and institutions; forestry departments; places of worship; public institutions; inter-community development associations; research and development institutes; landlord's associations; natural persons; authorised natural persons, in compliance with the European legislation in the field (implemented also in Romania).

## **2. Funding offer for the Romanian environmental protection projects**

The funding offer covers internal, external and mixed funding sources. The main funder is the European Union allocating resources through the European Regional Development Fund, the European Fisheries Fund and the Cohesion Fund.

For Romania, the main internal sources are the state budget, the Environment Fund and own resources.

### **2.1. Mixed funding**

The mixed funds are provided by the European Union through the European Regional Development Fund, the Cohesion Fund and the European Fisheries Fund, and the domestic contribution through BS and BL within the Operational Programmes.

From the *Sectoral Operational Programme on the Environment*, the environment sector is allocated the funds related to the first 5 priority axes.

From the Sectoral Operational Programme on Increasing the Economic Competitiveness, environmental protection is allocated the resources related to axis 4, namely DMI 4.1 “Efficient and sustainable energy (increasing energy efficiency and the energy system sustainability)” and DMI 4.2 “Capitalisation of energy renewable resources for generating green energy”.

From the Fisheries Operational Programme, the environment sector is allocated the axis 2 funds, namely 2.2 Aquatic environment-related provisions, 2.3. Public health provisions, 2.4. Animal health provisions, as well as axis 3-related funds – 3.2 Protection and development of aquatic flora and fauna.

From the Regional Operational Programme, environmental protection is allocated the axis 4 resources, namely DMI 4.2 Rehabilitation of polluted and unused industrial sites and preparing for new activities.

**Table no. 1. Summarizing table of the amounts allocated to the environment protection in the Operational Programmes**

No.	Operational Programmes	Total amount for the programme (billions of euros)	out of which for the environment			Comments
			Total amount for the programme (billions of euros)	Percentage for the environment, out of the total	Annual average (billions of euros)	
1	<i>Sectoral Operational Programme for Environment (POS Mediu)</i>	5.60	5.416	96.71%	0.774	Axis 1,2,3,4,5
2	<i>Regional Operational Programme (POR)</i>	4.40	0.032	0.74%	0.005	DMI 4.2
3	<i>Operational Programme for Fisheries (POP)</i>	0.31	0.014	4.65%	0.002	DMI 2.2 DMI 2.3 DMI 2.4 DMI 3.2
4	<i>Sectoral Operational Programme 'Increase of Economic Competitiveness' (POSCCE)</i>	3.01	0.479	15.89%	0.068	DMI 4.1 DMI 4.2
	<b>TOTAL OPERATIONAL PROGRAMMES 2007-2013</b>	<b>13.32</b>	<b>5.941</b>	<b>44.61%</b>	<b>0.849</b>	

Source: <http://eufinantare.info>, <http://eufinantare.info>

The total offer for financing the environment protection is 5.941 billions of euros, which represents 44.61% of the total allocated to the operational programmes that include specifications for the environment. It

can be noticed that POS Mediu provides a percentage of 96.71% of the funds available for financing, since it is a programme aiming the environment infrastructure.

## 2.2. National sources financing (Environment Fund)

In our country, the most popular internal tool of financing the investments for environment is the Environment Fund, meant to support and meet the objectives of a major public interest for environment protection (<http://afm.ro>). The environment fund is a public fund, inferable from a fiscal perspective, and its assets are public and come from the consolidated general budget. The fund management is provided by the Environment Fund Administration.

The fund revenue for environment comprises 14 taxes, where the most important is the vehicle emissions tax (44%) and the contribution from selling the ferrous and non-ferrous metallic waste, including the products meant for dismantling coming from the waste generator, namely the owner of the products, either natural or legal person (17.94%).

The Environment Fund Administration supports the financing of 22 categories of projects and national programmes for the durable development of Romania.

**Table no. 2. Profit and loss in the financing of the projects between 2007 and 2012**

Year	Profit to the budget (billions of lei)	out of which paid (lei)	
year 2007	0.182	0.091	18.61%
year 2008	1.105	0.207	20.17%
year 2009	0.953	0.306	40.79%
year 2010	1.207	1.452	126.43%
year 2011	1.503	1.735	160.78%
year 2012	0.624	-	-
<b>TOTAL</b>	<b>5.577</b>	<b>3.793</b>	

Source: Data from the Reports about the use of the environment fund (EF) between 2007 and 2011 and of the environment fund Budget in 2012, <http://www.mmediu.ro>

**Table no. 3. The calculation of the environment fund budget between 2007 and 2013 (billions of euros)**

YEAR	Average conversion rate for euro/leu	EF Budget (billions of euros)	EF Budget (billions of euros)
2007	3.3337	0.147	0.492
2008	3.6809	0.279	1.030
2009	4.2376	0.177	0.750
2010	4.2110	0.272	1.149
2011	4.2377	0.254	1.079
2012	4.3828	0.188	0.824
2013	4.3828	0.188	0.824
<b>TOTAL EF</b>		<b>1.508</b>	<b>6.151</b>
<b>ANNUAL AVERAGE</b>		<b>0.215</b>	<b>0.879</b>

Source: Data provided by [www.afm.ro](http://www.afm.ro).

Note: The average conversion rate for euro/leu was calculated in conformity with [www.bnr.ro](http://www.bnr.ro).

The tables 2 and 3 highlight the fact that the total value of the environment fund budget for 2007 -2012 was 5.327 billions of lei (6.151-0.824), while the profit was 5.577 billions, which means a surplus of 250 millions of lei.

The situation per years shows that the 2007 profit was 310 millions of lei less than stipulated in the budget, while for the other years, the profit was higher than the calculated budget. This phenomenon could be interpreted as an incorrect calculation of the environment budget or due to the changes of the budget numbers during the year.

In comparison with the profit made between 2007 and 2011, which was 4.953 billions of lei, only 3.793 billions were paid out, which meant an amount of 2.200 millions still present in the environment fund.

It can be noticed that the situation is different per years. While for 2007-2009, the amounts represented less than 30% of the profit, but for 2010-2011 they exceeded the budget profit by over 40% – the explanation lies in either the insufficient estimation of the amounts required from the environment fund (due to also the inappropriate fundamenting of the environment projects) or their change during the fiscal year.

The effects of the above could have been the non-achievement of certain actions of environment protection required in the respective field and geographical area (such as the improvement of the functional parameters of

the motor vehicle fleet from the environment protection perspective) and also the lack of correlation of the environment protection with the requirements of the competitive operation of the companies, institutions and communities.

A general conclusion about the two tables above is that the degree of knowledge, as well as of the implementation of the environment fund is not sufficiently accessed in terms of the quantity of the financed amounts.

### **3. Summary of the financing offer for the environment protection projects**

The table below shows the total offer for the environment protection projects for 2007 – 2013, which includes the funds related to the first 5 priority axes in POS Mediu, the amounts allocated by axis 4, i.e. DMI4.2. The reahabilitation of the polluted and deserted industrial sites and preparation for new activities in POR, the amounts available in Axis 2, which are the measures 2.2.Measures for the aquatic environment, 2.3.Measures of public health, 2.4.Measures of animal health and in the Axis 3, namely the measure 3.2 The protection and development of the wild flora and fauna in POP and in the amounts allotted to the axis 4, namely in DMI 4.1, ,Efficient and sustainable energy (improvement of the energetic efficiency and sustenability of the energetic system) and DMI 4.2, ,The capitalization of the renewable energy resources for producing green energy' in POSCCE, as well as the amounts allocated by the EF.

**Table no. 4. The total offer for the environment protection projects for 2007-2013**

No.	Operational programmes	Programme total (billions of euros)	out of which for environment		Comments
			Programme total (billions of euros)	Percentage of the total (%)	
1	Sectoral Operational Programme for Environment (POS Mediu)	5.6	5.416	96.71	Axis 1,2,3,4,5
2	Regional Operational Programme (POR)	4.4	0.032	0.74	DMI 4.2
3	Operational Programme for Fisheries (POP)	0.31	0.014	4.65	DMI 2.2 DMI 2.3 DMI 2.4 DMI 3.2

No.	Operational programmes	Programme total (billions of euros)	out of which for environment		Comments
			Programme total (billions of euros)	Percentage of the total (%)	
4	Sectoral Operational Programme 'Increase of Economic Competitiveness' (POSCCE)	3.01	0.479	15.89	DMI 4.1 DMI 4.2
	TOTAL OPERATIONAL PROGRAMMES	13.32	5.941	44.61	
5	The environment Fund	1.508	1.508	100.00	
	TOTAL OF THE ENVIRONMENT OFFER (PO+FM)	14.83	7.45	50.23	
	AVERAGE OF THE ENVIRONMENT OFFER (PO+EF)	2.11	1.06		

Source: Data in Table 9.

The table above shows that the total offer for the environment was 7.45 billions of euros and represent 50.23 of the total investments financed via PO and EF.

Within the Operational Programmes, the environment financing holds 44.61% of the total amounts allocated via PO, where the highest percentage of the financing meant for environment protection was for POR Mediu, a programme that is almost exclusively meant to finance the environment infrastructure programmes.

Within the other three operational programmes the share of environmental funds is 6.8% of the total funds ( $0.032 + 0.014 + 0.479 / 4.4 + 0.31 + 3.01$ ), the most consistent share being registered with POSCEE; This highlights the fact that to a certain degree the increase in economic competitiveness also depends on ensuring the environment's quality and maintaining its behavioural patterns.

The share of the environmental fund is 25.38% ( $1.508 / 5.94$ ) of the total funding offer for environmental protection, which highlights a significant funding effort for the national economy, also taking into consideration the budget's contribution to the PO.

#### ***4. The share of the investments' funding offer for environmental protection in GDP***

In order to perform a comparative assessment of the total amounts allocated for environmental protection investments we calculated their share in GDP for the 2007-2013 interval, presented in the table below. In order to determine GDP expressed in euro we calculated the lei/euro rate exchange average, based on the BNR data released daily since January 1.

**Table no. 5. The share of the investment offer for the environment protection in GDP**

<b>Operational programme</b>	<b>For environment between 2007-2013</b>
POS Medium/PIB	0.619%
POR/PIB	0.004%
POSCCE/PIB	0.055%
FM/PIB	0.172%
FUNDS/PIB	0.679%

Source: Based on data on [ww.bnr.ro](http://ww.bnr.ro) and on information in the present study

The present data reveal that the value of the funds assigned for environmental protection investments represent 0,68% of the GDP, which means an insufficient financial effort taking into consideration the major issues and consequences, often disastrous for the economy generated by the deterioration environment due to pollution. This small share comparatively to other countries such as Czech Republic, Poland (approx. 4%) has, in my opinion, the following causes:

- The insufficient potential of the Romanian economy
- The insufficient identification and evaluation of the environment deterioration degree and of the generating factors
- The insufficient institutional involvement and responsibility regarding environmental protection
- The inadequate information and mobilisation of the factors interested and targeted by the environmental deterioration degree.
- The strategic and methodological faults regarding the global knowledge of environmental deterioration.

## 5. Conclusions

The research conducted based on available data and information allows me to draw the following conclusions:

The investment funding by Operational programmes regarding the environment protection is mainly focused on the POS Medium (over 95%), the other programmes marginally including trends aiming at the environment protection. Within POS Medium, over 80% of the designated amounts are in the water and waste fields, this aiming in fact at the main environment deterioration factors, especially in the urban environment.

**POS** Environment is the most important financial assistance program for environmental infrastructure, being a catalyser for a more competitive economy, a cleaner environment and a more balanced regional development.

Environmental funds with a percentage of 96.71% are designated from this programme based on 5 priority axes. 61,53 % of the funds go to Priority Axis 1- „The expansion and surveillance of the water and waste water systems” this fact diminishing the excessive fragmentation of the sector by funding large infrastructure projects.

Most of the project funding for environmental protection come from this programme (5.416 bil. euro).

Within **POSCCE** the environmental protection project funding is made from the amounts designated to axis 4 and more precisely, DMI 4.1 “*Sustainable and efficient energy (improving the energetic efficiency and the energetic system sustainability)*” and DMI 4.2 “*Capitalising on the renewable energy resources for producing green energy*”, with a **0,16%** percentage of the total funds dedicated to this programme.

For environmental protection projects funding, the amounts in Axis 2 are available from POP: 2.2 *Aqua-environment measures* 2.3. *Public health measures*, 2.4. *Animal health measures* and from axis 3, the 3.2 *The Protection and development of the wild fauna and flora* measure, with a percentage of **0.045%** as it is not a programme dedicated to the environment infrastructure.

In the case of **POR**, the funding of the environmental projects is made through axis 4, DMI 4.2. *The rehabilitation of the polluted and unused industrial sites and the training for new activities*, with a percentage of **0.006%** of the total funds assigned for the programme.

In our country, the best well-known internal investment funding instrument is the Environment Fund focused on supporting and establishing the major public interest objectives for environmental protection.

Between 2007-2013 the FM budget is **1.508 bill. euro**.

The Administration of the environmental protection fund supports the funding for *22 project categories*; Due to the fragmentation, the financial capacity is limited. The aggregation of these categories according to priority fields could highlight 5 essential fields: pollution, waste, degradation, biodiversity and education and research.

In comparison with the assignation of the PO funds, we can assert that FM is complementary to PO, covering with priority the fields that are not targeted by these programmes, and focusing on a lot more directions and fields than PO.

The projects funded by FM do not coincide with the ones funded by UE through PO, as the funding strategy is not common.

One possible solution would be for FM to co-finance different European projects.

**The total offer for the environment** is 7.45 bil. euro representing 50.23% of the total investments funded through PO and FM.

Within the operational programmes, the environmental funding is 44,61% of the amounts assigned through PO, the largest share of the funding assigned to the environmental protection being registered within POS Environment, programme almost exclusively focused on the funding of environmental infrastructure programmes.

For the other three operational programmes, the share of the environmental funding is 6,8, the highest share being registered for POSCCE and highlighting thus the fact that to a certain extent, the increase in the economic competitiveness also depends on the quality of the environment and on maintaining its behavioural parameters.

The environmental fund share is 25.38% of the total funding offer for environmental protection, which highlights a significant national economy funding effort for environmental protection, should we consider the budget's contribution to PO.

The value of the funds assigned for **environmental protection investments is 0.68% of the GDP**, which reveals an insufficient financial effort, taking into consideration the major issues and consequences, often disastrous for the economy generated by the environment deterioration, especially due to pollution.

This small share in comparison with other countries - Czech Republic, Poland (approx. 4%), have the following causes: the insufficient potential of

the Romanian economy; the insufficient identification and assessment of the environment deterioration degree and of the generating factors; the insufficient institutional involvement regarding the environment protection actions; the inappropriate information and mobilisation of the stakeholders targeted by the environmental deterioration degree.

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