

## STUDY REGARDING THE IMPLIED ENVIRONMENTAL PROTECTION EXPENDITURE

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### Abstract

*The expenses for the protection of the environment constitute the economic measure of the answer given by the company for treating the problems generated by the state of the environment at a certain stage. Regional as well as local communities have a significant role in accepting and applying environmental protection measures.*

*Thus, it is considered that the field of environmental protection is a very important one for the population.*

*The environment is protected at great expense in the modern world.*

*The expenses with the protection of the environment include the expenses incurred to carry out the activities of surveillance and protection of the environment, but also those that refer to the prevention or repair of the damages brought to it.*

*The expenses that are made with the protection of the environment are lower when its degradation is prevented compared to the situation when it is repaired. In other words, in the protection of the environment, not therapy, but prophylaxis should be established as the basic rule. Environmental protection measures are becoming more and more necessary.*

*As a result of the depletion of natural resources, there is an upward evolution of the quantities of waste.*

*The paper presents a situation of the expenses for environmental protection.*

*The general situation related to the expenses for environmental protection in Romania was improved by increasing the available funds, as a result of the economic growth and also of the revenues to the state budget.*

**Keywords:** environmental protection, expenditure, natural resources

### INTRODUCTION

The environment means: wonderful scenery and recreational environment; fresh air and drinking water; investment opportunities with positive consequences on GDP growth and job creation; supplier of raw materials, energy, etc .; capacity to absorb and recycle waste; protector of life through forests and river basins; source of oxygen and ozone (Manoliu. M., Ionescu, Cris tina, 1998)

We attend more and more often, at actions where some of the raw materials, intermediate or final products, especially complex, are found in air, water and soil (EEA, 2008).

Pollution, by introducing into the environment matter or energy with harmful or harmful effects, alters ecosystems, diminishes biological resources and endangers human health ”(Munteanu, C., Dumitrașcu, Mioara, Iliuță, RA, 2011 )

The environmental problems are particularly complex, because the causes are interdependent, which requires actions at all levels: local, national and regional authorities, each having its own role in increasing the responsibility for the protection of the environment ( Comănescu Mihaela, 2010 ).

The problems regarding the protection of the environment are in the attention of some international institutions, which monitor the activity carried out by the countries in this field. It should be noted that, through the actions taken, especially in the last eight decades, Romania has some positive results, being ahead of countries in Europe and on other continents. ( M arinescu, RT, 2018)

Environmental protection includes all the measures by which the economic and social development takes into account the ecological requirements of the development ( Badea, Carmen Georgiana, Anghelut, P., S., 2017 ).

This refers both in technique and in practice to ensuring the necessary conditions for the preservation and improvement of the quality of natural factors, increasing natural wealth, ensuring better living and working conditions for present and future generations. From all points of view, environmental quality is the inseparable central element of quality of life.

Quality environment positively affects economic growth because, firstly, acts favorably on the main production factor - man, keeping health and exempt companies spending for medical assistance and, secondly, contribute to ensuring and activation natural factors of production - land with his riches. (Gheres Marinela, 2007).

Expenditure for environmental protection represents the economic measure of the response given by the company to address the problems generated by the state of the environment at a certain stage.

These include the expenses incurred for carrying out environmental monitoring and protection activities and those relating to the prevention or repair of the damages brought to it ( Frăsineanu I., Băloiu L., 2007 ) .

## **MATERIAL AND METHOD**

The research methods used by the authors consisted of consulting a bibliography from the specialized literature, collecting statistical data, documentary analysis, graphical representation, classification, comparative analysis.

Expenditure on environmental protection reflects the financing flows of the environment and includes payments for economic activities aimed at producing specific services for preventing, reducing or combating environmental damage.

These are grouped into: current investments and expenditures which in turn include internal current expenditures (salaries and social contributions, consumption of raw materials, fuels, energy, water and other auxiliary materials, research and development expenses, training, information, administration of and external current expenses (expenses for environmental protection services purchased from third parties and for environmental taxes paid) (INS, 2015).

The categories of producers are divided into: specialized producers, non-specialized producers and the public administration sector (INS, 2017). Each of these categories is composed of units specific to the respective activities.

Thus, from the category of specialized producers are: units for collection and treatment of waste water; the units for the collection, treatment and disposal of waste, recovery activities of recyclable materials; the units for decontamination services and units dealing with the wholesale trade of waste and scrap. (INS, 2014).

The non-specialized producers include: forestry units, economic units in the extractive, processing, production and supply of electricity and heat, gas, hot water and air conditioning; units for water capture, treatment and distribution; the construction units and the units that have transport activity. Within the category of the public administration sector are the units of central and local public administration.

The Public Administration includes all the units of the local and central public administration that produce or finance non-commercial environment protection services, intended for individual and collective consumption (INS, 2016).

## **RESULTS AND DISCUSSION**

From analysis DATEL or presented in Table 1, it is found that for between 2014-2018 environment costs of producers we specialize increased, peaking in 2015 (9,262,709 thousand).

Thus, in 2015 they were 2.35 times higher than in 2009 ( 3,929,598 thousand lei) .

Also, it can be seen that the expenses for the environmental protection of specialized producers decreased, the smallest decrease being in 2016 ( 5,138,758 thousand lei) .

*Table 1*

Evolution of expenditures for environmental protection by activity sectors  
- RON tho using current prices-

Sectors of activity	The year				
	2014	2015	2016	2017	2018
<b>Non-specialized producers</b>	<b>6078229</b>	9262709	4844684	5253304	6953322
Forestry, logging and related services	34.193	46.675	269.955	246.967	270.720
Extractive industry	596.107	553.873	474.329	620.704	1569569
Manufacturing industry	1539285	2940678	1269102	1357311	1367959
Production and supply of electricity and heat, gas and hot water	1662484	2612875	1202476	1582996	2,195.9 52
Water capture, treatment and distribution	2005086	2767395	1257777	1013776	1115525
Construction	88.008	117.977	146.059	135.482	144.852
Transport	153.066	223.236	224.986	275.056	259.281
Other activities		-	-	21.012	29.464
<b>Specialized manufacturers</b>	<b>7145977</b>	6229382	5138758	6203919	6.73243 million
<b>Public Administration</b>	<b>3132485</b>	4507534	5.5207 million	4310403	7.1805 million

Sources: www.insse.ro

Regarding the expenses for the environmental protection of the producers of the public administration sector, an increase of 2.29 times in 2018 is observed compared to 2014.

From the analysis of the expenses for the environmental protection of the non-specialized producers in 2018, it turns out that in the field of "production and supply of electricity and heat, gas and hot water" 31.6% of the expenses were registered, while in the sector "industry" 22.6% were extracted, while the "processing industry" sector spent 19.7% of the expenses of non-specialized producers.

Expenditures at national level include: investments, internal current expenses (current expenses incurred through own activities of environmental protection) and other public administration expenses (grants awarded, transfers), not including external current expenses (expenses for the purchase of environmental protection services). to third parties, as well as taxes paid as an environment)

In 2014, expenditures for environmental protection at national level were about 12.6 billion lei , rising to 15.6 billion lei in 2015, decreased to 9.0 billion lei in 2016 and again increased to about 14 , 7 billion lei in 2018 (table 2).

*Table 2*

Expenses for environmental protection by types of producers and categories of expenses

- RON thousand current prices -

<b>Types of manufacturers</b>	<b>investments</b>	<b>Internal current expenditure</b>	<b>Internal current expenditure</b>	<b>Transfers</b>
<b>2014</b>				
Non-specialized producers	3.08957 million	1332819	1.65584 million	-
Specialized manufacturers	372.637	5822854	950.486	-
Public Administration	792.469	1020643	1181316	138.057
<b>2015</b>				
Non-specialized producers	4.82857 million	2706216	1727923	-
Specialized manufacturers	775.695	4458577	995.110	-
Public Administration	1,140 , 763	1530528	1687356	
<b>2016</b>				
Non-specialized producers	1233658	1507782	2103244	-
Specialized manufacturers	285.600	3801206	1051952	-
Public Administration	1.4852 million	709.018	1166683	2.1598 million
<b>2017</b>				
Non-specialized producers	887.667	1,671 , 874	2693763	-
Specialized manufacturers	266.043	4449551	1488325	-
Public Administration	1152299	1073011	1272689	812.404
<b>2018</b>				
Non-specialized producers	1,657,409.00	1,947,580.00	3,348,333.00	-
Specialized manufacturers	400,913.00	4,833, 490.00	1,498,027.00	-
Public Administration	1,434,900.00	1,147,962.00	1,356,038.00	3,241,600.00

Sources: www.insse.ro

At national level (tables 2), the largest investments for environmental protection were registered in the field of wastewater management in the public administration, representing 78.0% of the total investments in the field of wastewater management.

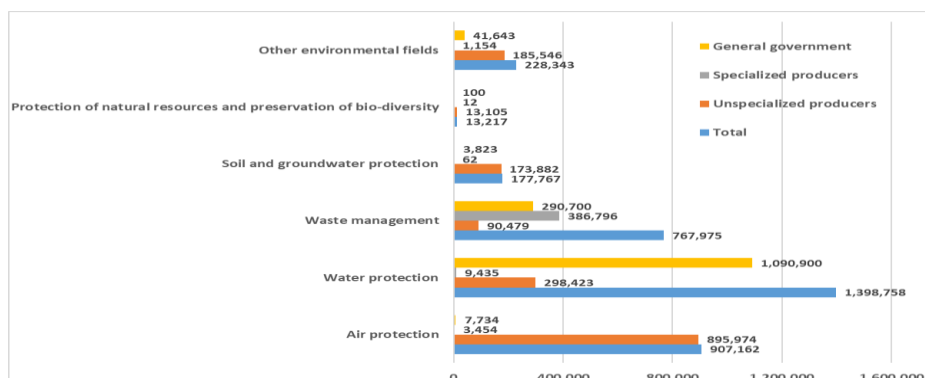


Fig. 1. Environmental protection investments, by field and producer category, in 2018 (RON thousand current prices)  
Sources: www.insse.ro

From the analysis of the national level for the year of investments 2018, the following aspects are found: the share of investments of non-specialized producers (figure 1) represented 47.4% in total investments for environmental protection; the share of investment of their government represented 41.1% and that of investiții or professional producer accounted for 1.5%.

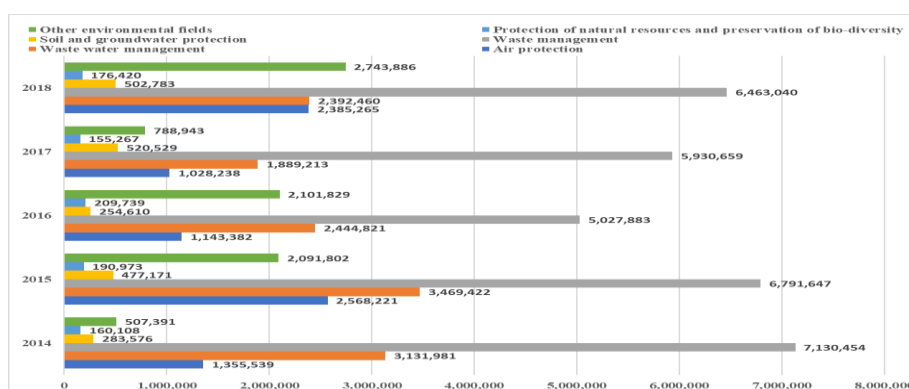


Fig. 2. Evolution of the total expenditures for environmental protection by environmental domains  
Sources: www.insse.ro

In 2018, by environmental domains (Figure 2), the highest expenditures were registered for waste management (44.1% of the total expenditures for environmental protection at national level), followed by the expenditures for other environmental domains (18, 7%) and the expenses for waste water management and air protection with 16.3% each .

The environmental protection actions eligible for support within the National Framework are as follows: Air protection, Waste water management, Waste management , Soil and groundwater protection, Protection of natural resources and biodiversity conservation, Other environmental areas (National framework for protection measures) environment, 2019)

Table 3 presents the environmental expenditures of producers well specialized in environmental areas , for between 2014 -2018 . Thus, the expenses with the management of the waste water decreased during the analyzed period by 1,158,803 thousand lei from 2,215,714 thousand lei in 2014 to 1,056,911 thousand lei in 2018 (decrease over 50%). The other categories of expenses had an upward evolution: expenses with waste management increase of 1.39 times, expenses with rotation of soil and groundwater , increase of 1.57 times, and expenses with other environmental areas, increase of 3, 66 times.

*Table 3*

Evolution of the expenses for environmental protection of non-specialized producers in environmental fields  
- RON thousand current prices -

Environmental areas	The year				
	2014	2015	2016	2017	2018
Air protection	<b>1126659</b>	2329749	425.516	332.750	1083325
Waste water management	2215714	2522504	1251416	997.224	1056911
Waste management	292.031	458.245	238.498	303.709	404.714
Protection of soil and groundwater	260.484	416.369	233.235	409.870	408.108
Protection of natural resources and conservation of biodiversity	130.698	79.984	183.471	152.720	172.992
Other environmental areas	130.698	1727935	409.304	363.268	478.939

Sources: [www.insse.ro](http://www.insse.ro)

From the analysis of the data presented in table 4 , it is found that for the period 2014-2018 the expenses for the environmental protection of the specialized producers registered a downward evolution , except for the expenses with the protection of the air that increased (increase with 5,766

thousands lei) . The expenses with the management of the waste decreased by 918,345 thousand lei during the analyzed period (from 5,928,533 thousand in 2014 to 5,010,188 lei in 2018), the expenses with p rotation of the soil and of the groundwater decreased by 3.58 times, and expenditures for other environmental domains fell 3.43 times.

*Table 4*

Evolution of the expenses for environmental protection of specialized producers in environmental fields

- RON thousand current prices -

Environmental areas	The year				
	2014	2015	2016	2017	2018
Air protection	<b>124.404</b>	17.482	108.310	12.320	130.170
Waste water management	90.490	129.453	61.849	76.041	77.580
Waste management	5928533	4788232	3852293	4544257	5010188
Protection of soil and groundwater	14.091	20.795	8709	51.995	3941
Protection of natural resources and conservation of biodiversity	2,342	118	390	1679	2143
Other environmental areas	35.631	278.192	55.255	29.302	10.381

Sources: w ww.insse.ro

Regarding the expenses for the environmental protection of the public administration, they increased considerably between 2014-2018. Thus, expenses with air protection registered a significant increase of 11.22 times (from 104,476 thousand lei in 2014 to 1,171,770 thousand lei in 2018), while the expenses with other environmental fields increased by 30.1 times. On the other hand, expenditures for the protection of natural resources and the conservation of biodiversity fell considerably by 21.1 times in 2018.

*Table 5*

Evolution of expenditures for environmental protection of public administration on environmental domains

- RON thousand current prices -

Environmental areas	The year				
	2014	2015	2016	2017	2018
Air protection	104.476	220.99	609.556	683.168	1.17177 million
Waste water management	825.777	817.465	1131556	815.948	1257969
Waste management	909.890	1.54517 million	937.092	1082693	1048138
Protection of soil and groundwater	9001	40.007	12.666	58.664	90.734



Protection of natural resources and conservation of biodiversity	27.068	110.871	25.878	868	1285
Other environmental areas	74.957	85.675	1.63727 million	396.373	2254566

Sources: [www.insse.ro](http://www.insse.ro)

In the coming period, efforts to improve environmental activities must constitute a concern valued for all the stakeholders involved in this area. According to estimates of the Department IU Environmental Protection and of European experts, it is estimated that over the next 20 years, to maintain environmental balances as close as environmental standards, Romania will have to invest over 20 billion euros.

## CONCLUSION

The concerns in Romania for the protection of the environment, for the protection of natural beauty, as well as for preventing the abusive exploitation of nature, are not recent.

The analysis shows that the environment is a "factor of life", while the development of industry and other economic activities that has not always been of the highest quality have led to its degradation. In these conditions, it is necessary that in the next period a better organized and protected evolution will be ensured, so that the quality of the environment is protected. Also, emphasis should be placed on measures to protect the environment, and developments in the polluting branches should be sufficiently protected on the one hand, and on the other hand, the effects of polluting factors should be diminished.

Romania is facing serious environmental problems, INS to report at expenses of 14.7 billion lei in this sector in 2018.

It is noted that for the period 2014-2018, due to the reduction of the expenses for the environmental protection of the specialized producers, the expenses for the environmental protection of the non-specialized producers, but also those of the public administration sector, have registered an increasing trend.

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