

**EXPENDITURE ON ENVIRONMENTAL PROTECTION:  
NON-ONGOING PROGRAMS IN ROMANIA (2018)**

**Liliana BARBU<sup>1</sup>**

*Lucian Blaga University of Sibiu*

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**Abstract**

*In Romania, public spending on environmental protection is carried out in over 20 programs funded by the Environment Fund. This paper presents a brief analysis of programs currently suspended from funding, although they target topical destinations. Through the environmental programs, which are not currently financed by the Environmental Fund Agency, there are included: Green House - plus, Biodiversity, Eco-Civic, Eco-Business, Eco-Tourism, Compost, Integrated Coastal Zone Management, Renewable Energy, Waste, Bicyclists, Removing Dangerous Weather Effects, Impact Reduction, Rehabilitation of Contaminated Sites, RO06-Renewable Energy, "Rabla" for Tractors.*

**Keywords:** environment fund, public expenses, public budget, environmental costs

**JEL classification:** H23, H61

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**1. Introduction**

Environmental challenges are increasing the pressure on governments to find ways to reduce environmental damage while minimising harm to economic growth. Governments have a range of tools at their disposal, including regulations, information programmes, innovation policies, environmental subsidies and environmental taxes. The use of economic instruments in environmental policy is not without possible drawbacks. One of the key problems may be the typically regressive nature of taxes on pollution. (Etheridge B., Leicester A., 2007, p. 191) The costs and benefits of the environmental policies are unequally distributed among agents. In principle, taxes are preferable where the benefits of reductions change less with the level of pollution than do the costs of delivering the reductions.

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<sup>1</sup> Lecturer / Ph.D., Faculty of Economics, "Lucian Blaga" University of Sibiu, liliana\_sibiu@yahoo.com

Environment policy rests on the principles of precaution, prevention and rectifying pollution at source, and on the ‘polluter pays’ principle. Multiannual environmental action programmes set the framework for future action in all areas of environment policy. The ‘polluter pays’ principle is implemented by the Environmental Liability Directive, which aims to prevent or otherwise remedy environmental damage to protected species or to natural habitats, water and soil. The reasons for the magnitude and rate of this destruction are many and complex. (Steele R., 2010, p.7)

Views about the interaction between environmental policy and economic growth frequently fall into two camps. On one side, there are those who point to the finite nature of many of the earth’s natural resources on which much economic activity depends, the seemingly inexorable rise in human consumption of those resources, and consequent inevitable shortages. The problem of climate change is a particularly forceful example of the contrast between relative abundance of non-renewable resources and relative shortage of renewable ones. (Agentia Regionala pentru Protectia Mediului Sibiu, 2011, p.10)

The present paper is a retrospective of the Romanian environmental programs that have been stopped from financing at the present moment. These programs target more than half of destinations for the financial resources managed by the Environmental Fund Agency. The paper highlights public expenditures for environmental protection carried out in previous periods, which are necessary in the present, they are included in legislation, but suspended for unidentified reasons. The paper is structured in three parts, it starts with introductory aspects that highlight the importance of using public financial resources for environmental protection, and then it shows the environmental programs that have been stopped from financing, and in the end a series of conclusions are highlighted.

Environmental protection expenditure is defined by DG ESTAT (Eurostat) as follows: “money spent on all activities directly aimed at the prevention, reduction and elimination of pollution or nuisances resulting from the production processes or consumption of goods and services. Excluded are activities that, while beneficial to the environment, primarily satisfy technical needs or health and safety requirements.” (<http://epp.eurostat.ec.europa.eu>).

## **2. Analysis of Environmental Fund programs suspended from funding in 2017**

The Environmental Fund Administration has as main objective development and financing of several categories of programs for a sustainable development in Romania and which to contribute to the improvement of the environmental infrastructure. Financial support is provided from the Environmental Fund for projects proposed by natural and legal persons, whether public or private, including administrative-territorial units, intercommunity development associations, public institutions, research and development institutions, non-governmental organizations, economic operators, forest companies, owners' associations, authorized natural persons, individual enterprises and family businesses.

From the Environmental Fund some pilot projects and programs are financed by using one or more of the following methods (established by the normative acts):

- a. financial support of the projects through financing or non-reimbursable co-financing;
- b. co-financing of projects funded by European funds and / or other international funds;

In Romania, the Environmental Fund is used for the following destinations: reducing the impact on the atmosphere, water and soil, including air quality monitoring; reduction of noise level; waste management; water resource protection, integrated water supply systems, sewage and treatment plants; integrated coastal zone management; biodiversity conservation and management of protected natural areas; afforestation of degraded lands, ecological reconstruction and sustainable forest management; education and public awareness on environmental protection; increasing the production of energy from renewable sources; renaturation of land taken out of the natural heritage; restoration of historically contaminated sites; the application of clean technologies, including but not limited to coal gasification and high efficiency cogeneration; to carry out monitoring, studies and research in the field of environmental protection and climate change on tasks deriving from international agreements, European directives or other national or international regulations and R & D in the field of climate change; modernization and rehabilitation of energy groups; the closure of tailing ponds in the mining sector; performing works to prevent, remove and / or mitigate the effects of extreme meteorological phenomena and other harmful factors under the law;

the installation of heating systems using renewable energy, including the replacement or completion of classical heating systems; the national program to improve the quality of the environment through green areas in urban areas; the program to stimulate the renewal of the National Motor Car Park; the program to stimulate the renewal of the National Park of self-propelled agricultural tractors and agricultural machinery; cycle program for cyclists in urban and peri-urban areas; the program for development and optimization of the National Air Quality Monitoring Network; reducing greenhouse gas emissions in transport by promoting energy-efficient road transport vehicles; performing works for energy efficiency; reducing greenhouse gas emissions in agriculture; the development and optimization program of the National Radio Network Surveillance Network; the program for the evaluation, characterization and classification of waste.

What is noteworthy is that more than half of them, 15 funding programs / projects, are running out of the multitude of environmental fund financing programs in 2017. Theoretically, such destinations can be funded (or were funded in other years), but practically nothing happens. All these programs will be detailed in the paper.

Improving the energy efficiency of the existing building stock is essential, not only to meet national energy efficiency targets in the medium term, but also to meet the long-term climate change strategy and move towards a low-carbon, competitive economy by 2050. (Ministry of Regional Development and Public Administration, 2014) Increasing energy efficiency can be achieved in a number of ways, from educating the users of the building in the spirit of the energy economy and through the carrying out of an energy expertise that experts recommend a series of technical solutions for the modernization of the building. The strategy for mobilizing investment in the renovation of residential and commercial buildings, both public and private, existing at national level, is developed in line with the requirements of Article 4 of the Energy Efficiency 2012/27 / EU Directive. The Plus Green House is a program aimed to energy efficiency projects and addresses both individuals and legal entities. For individuals, the program covers expenditure on materials used to isolate and finish dwellings, manpower services and design services. The amounts are granted in the form of a premium with a maximum of 40,000 lei, but no more than 120 lei / sqm isolated and finished. For companies and territorial administrative units, the program provides for the financing of organic-natural insulation, green roof systems, vegetation walls,

consumption systems (BMS), wood-based windows with wood carpentry, LED lighting systems within the limit 15% of the cost of the core investment, and system installation costs. The amount of funding is up to a maximum of 500,000 lei per project, related to the eligible expenditures and is granted up to 90% of the eligible expenses of the project.

As a result of several worldwide studies in the field, the impact of sustainable building renovation can generate the following benefits:

- economic benefits – an increased economic activity as a result of job creation and investment stimulation, property value increase;
- social benefits - home heating becomes affordable for families with modest incomes, plus increased air quality and hence health benefits;
- environmental benefits - reduction of CO2 emissions;
- benefits for energy systems - all users can benefit from energy-saving savings at the highest energy system demand resulting from improvements in the energy performance of buildings, including autogeneration, and are roughly the same as energy cost savings. (Ministry of Regional Development and Public Administration, 2014)

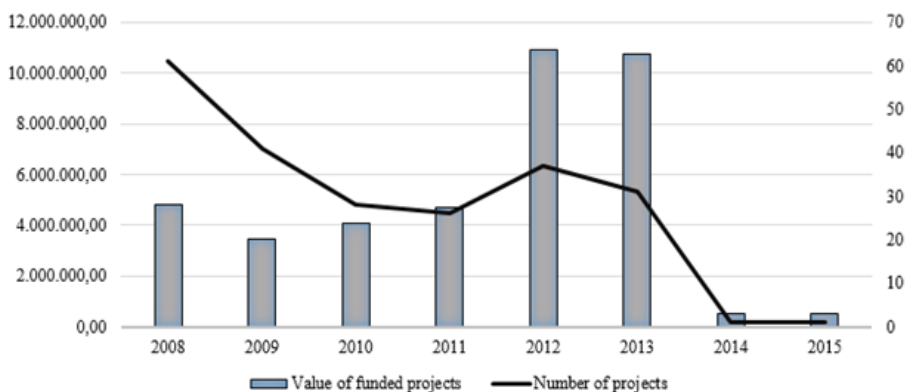
Biodiversity is the program on biodiversity conservation and management of protected natural areas. This program addresses to non-governmental organizations, administrative-territorial units, public institutions, museums, public-law research and development institutes, accredited higher education institutions, economic operators, county agencies that have the status of custodians and administrators of protected areas. Expenditures covered by the program aim at spending on feasibility studies up to a maximum of 5% of the total amount of unspent expenditure, expenditure on the implementation of information and awareness activities on conservation measures to be implemented, up to 10% of the total expenditure unsubscribed, wage bill of the project team members up to a maximum of 15% of the total value of the unpaid expenses specified by law for each protected area. The amount of funding is up to 2.250.000 lei, related to the eligible expenditures and can cover up to 100% of the eligible expenses of the project.

The World Conservation Monitoring Center's database of protected areas is updated periodically, approximately every three years to ensure that a new edition of the United Nations Protected Areas is published. Monitoring the growth of the global network of protected areas, their distribution and management objectives are vital. The total area of protected natural areas in Romania is about 20% of Romania's surface area.

(<http://biodiversitate.mmediu.ro>) For our country have been declared internationally protected areas: biosphere reserves (Danube Delta, Retezat, Pietrosul Rodnei), wetlands of international importance (Danube Delta, Small Island of Braila, Lunca Mureș, Dumbrăvița Fish Complex, Techirghiol Lake), natural sites of the universal natural heritage (Danube Delta), geoparks (Geopark of Hațeg, Mehedinți Plateau Geopark). The Natura 2000 network is a nature protection structure that has expanded in Romania by including and managing the protected natural areas in our country. Romania owns 273 Sites of Community Importance and 108 Special Avifaunistic Protection Sites, declared by Order no. 1964/2007 and Government Decision no. 1.284 / 2007, as integral parts of the European ecological network Natura 2000 in Romania. The total area of Natura 2000 sites in Romania represents 17.84% of the country's surface. (<Http://biodiversitate.mmediu.ro>)

Eco-civic is a program aimed at educating and raising public awareness on environmental protection. Beneficiaries of the project are non-governmental organizations, territorial administrative units, education institutions. The program finances expenditures such as: producing, publishing and distributing printed / inscribed / self-publishing materials / educational content on waste management up to 8% of the total amount of eligible unpaid expenses; creating web pages, acquiring equipment for organizing camps, purchasing the necessary materials for sanitation and greening of green spaces, etc. Funding is granted in the amount of up to 100% of the total eligible project value for territorial administrative units, educational establishments and institutions and no more than 90% of the total eligible project value for non-governmental organizations. The maximum amount that can be claimed and granted is 450,000 lei for each project.

Figure 1: Eco-civic projects funded between 2008 and 2015



Source: Data centralized by author from [www.afm.ro](http://www.afm.ro)

Between 2008 and 2015, approximately 39.75 million lei were spent in Romania to finance 226 public education programs on waste management implemented by pre-university education associations and units. As can be seen in the figure above in the years 2012 and 2013, the highest values of the financed programs were recorded, of about 11 million lei annually, more than double than in the previous years. From the point of view of the number of beneficiaries, the centralized data show that in 2008, 61 beneficiaries benefited from financing in the amount of 4.7 million lei, as compared to the last two analyzed years when one beneficiary received individual financing of 0.5 million lei, well below the values recorded in the other years.

Eco-business is a program for businesses. It is intended for companies that use technologies to obtain materials and / or products with low environmental impact by using natural raw materials and / or recycled raw materials. This program finances investments related to the establishment of a new unit, the expansion of an existing unit, the diversification of the production of a unit. The amount of non-reimbursable financing may not exceed the equivalent in lei of the maximum level of minimis aid EUR 200,000 or EUR 100,000 (for companies which operate in the field of road haulage for clients or with payment).

In tourism services sector, we find the Eco-tourism environment project. The eco-tourism program focuses on two funding themes. The first theme is to finance the development of access infrastructure, mountain refuges with shelter and tourist information, information and interpretation infrastructure of local nature and culture, and local ecotourism services. The second theme is aimed at programs for increasing the human resources capacity for the management and administration of the destinations associated to natural protected areas. Expenditures covered by the grant include personnel expenses, purchase of equipment, installation expenses (eg visiting cemeteries), construction works (eg mountain refuges, vestibules), works for restoration of markings on mountain trails, for the realization of training sessions, etc. The amount of non-reimbursable financing may be up to 100% of the total eligible expenditure of the project, without exceeding the equivalent in lei of the maximum level of minimis aid, EUR 200,000 or EUR 100,000, as the case may be. Ecotourism is a form of tourism where the main motivation of the tourist is to observe and appreciate nature and local traditions related to nature. (Ecotourism Association of Romania, 2016) "Eco" tourism is the type of tourism that fulfills the following conditions: it preserves and protects the nature, it has an educational character, it pursues the respect for the nature through the awareness of the tourists and the local communities, usage of the local human resources, it has a minimal negative impact on the natural and socio-cultural environment. By ecotourism it is hoped that some of the benefits resulting from tourism as an economic activity will be directed to protecting the tourist potential of the area.

The organization of municipal waste management activities is one of the obligations of local government. The central and local public administration authorities shall provide funds in their own budgets for the fulfillment of obligations resulting from the implementation of Community environmental legislation and environmental protection programs. At the end of 2016 was published on the public debate a Guide to the Waste Management Program - Compost, a program for local public authorities for purchasing individual composting plants. Composting is a controlled biological process where agricultural and industrial waste, communal waste, or sludge from domestic sewage treatment can be used as organic raw material. (Pascu R., 2009, p. 174) Biodegradable waste is composted for re-use in the crop production cycle as a fertilizer or soil improver. Centralized composting plants can handle more than 100,000 tonnes per year of biodegradable waste, but the

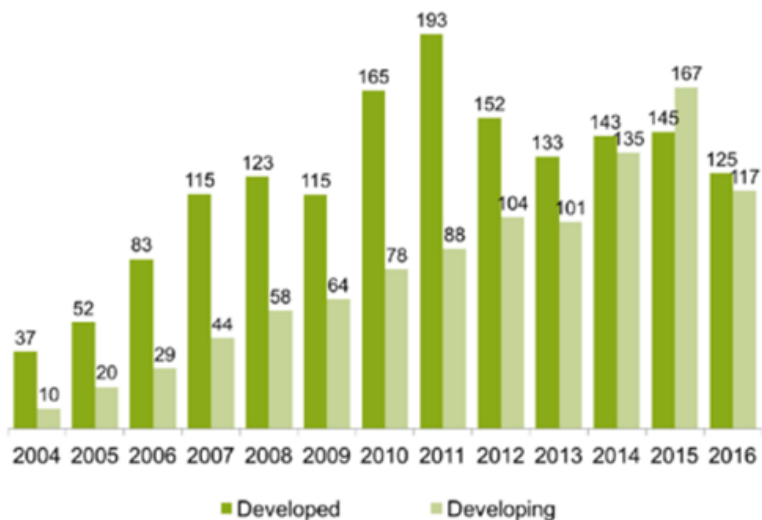


typical size of a composting plant is 10,000 to 30,000 tonnes per year. At a 20% collection rate of green waste in households, 1 ha is needed for composting for 100,000 inhabitants. (Pascu R., 2009, p. 177) The compost is used in agriculture (about 50%), for landscaping (up to 20%), for the production of crop substrates and artificial soils (about 20%), as well as by private consumers (up to 25%) (Sibiu Regional Environmental Protection Agency, p.130) The financing depends on the number of households and is granted for each individual composting unit, the maximum accepted value may be: up to 300 lei, including VAT, for each monobloc composting unit with a volume of 200 to 400 liters or up to 1500 lei, including VAT, for each rotating drum composting unit. The maximum eligible amount for each ATU is 1,500,000 lei. The main advantage of composting is that it involves simple, durable and cheap technology, but the challenge is to develop and maintain a compost market.

At present, the functioning of the world economy relies heavily on energy from non-renewable resources. Additional pressure on the development of the renewable energy sector is due to the continuing increase in energy demand due to the expansion of the world economy and the increasing of population. Renewable energy comes from natural resources that are constantly renewed over relatively short intervals. Among the general objectives of the Strategy for the Recovery of Renewable Energy Sources in Romania are included: integration of renewable energy sources in the structure of the national energy system, diminution of the technical-functional and psycho-social barriers in the process of capitalizing on the renewable energy sources, the independence of the energy consumption of the national economy, creating the conditions for Romania's participation in the European Green Certificates Market for renewable energy. (National Action Plan for Energy from Renewable Sources, 2010, p.7)

Globally, there is an upward trend in investment in new energy production both in developed countries and in developing countries. As can be seen in the chart below, in 2016 the value of investments in renewable energy production exceeds 240 billion dollars. Also, between 2014 and 2016, the figures indicate funding for renewable energy without significant value differences between developed and developing countries as compared to the period 2004-2011, when the amounts invested in this sector in the developed countries are almost double that of the those in developing countries.

**Figure 2: Global new investments in new energy in developed and in developing countries 2004-2016 (mld dolars)**



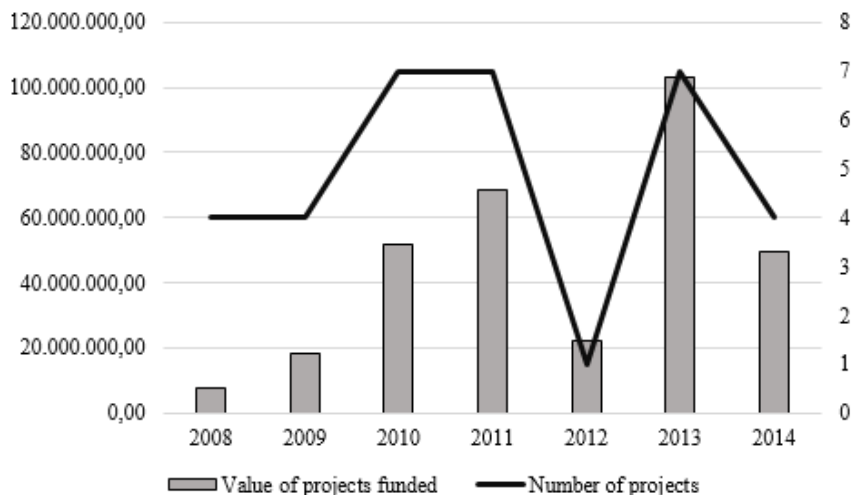
Source: UN Environment, Bloomberg New Energy Finance, p.15

At la world level, it can be seen that municipal utilities have gradually increased their investment allocation in renewable energy and are now amongst the most active investors in this sector. Renewable energy investments enable municipal utilities to diversify and expand their generation portfolio and target a highly saturated energy market through innovative green energy offerings. As they are directly or indirectly owned by a municipality or city, municipal utilities are also often politically motivated to invest in renewable energy. The investment capacity of municipal utilities varies significantly depending on their general financial strength and the number of customers they serve. (<http://cleanenergypipeline.com>) In Romania, this is not happening unfortunately, all environmental projects were for the financing of renewable energy producers.

The Renewable Energy Program aims to finance the production of energy from renewable sources and addresses the economic agents. Over the 7 years in which it was in progress, 34 projects with a total value of 320.6

million lei were financed. Most projects were funded in the years 2010, 2011 and 2013. The amounts allocated in 2010 and 2011 have a total value lower than the amounts allocated in 2013 of about 103 million lei. As it can be seen in the graph, the financing of renewable energy production has an annual upward trend, except for 2012, reflecting its importance for the Romanian society.

**Figure 3 Projects funded for renewable energy 2008 - 2014**



Source: Data centralized by author from [www.afm.ro](http://www.afm.ro)

A program funded under the EEA Financial Mechanism 2009-2014 is the RO06 renewable energy program (RONDINE), launched in 2013. The Renewable Energy Financing Program (RO 06 Renewable Energy) aims at sustainable use of natural resources and reduction of gas emissions of the greenhouse by capitalizing renewable energy sources, namely hydro and geothermal potential. The financing program has two components: a hydroelectric and a geothermal component. The hydroelectric component is aimed at making initial investments and refurbishing hydroelectric power plants in order to expand the production capacity of electricity from renewable

sources. The geothermal component aims at making initial investments and refurbishing the geothermal energy thermal power plants with the aim of expanding the production capacity of thermal energy from renewable sources. (<https://www.afm.ro>) Of the 4 projects submitted on hydroelectric component, 3 projects belonging to the private environment were admitted, with a total value of 26.4 million lei for hydro-energetic facilities. (<http://www.rondine.ro>) Regarding the other domain, of the 6 projects submitted on a geothermal component, 3 were admitted and belonged to the territorial local authorities. (<http://www.rondine.ro>) The value for geothermal water worth exceeds 43 million lei. For these projects, 4 pre-defined projects amounting to 6.8 million lei are added, the beneficiaries of which are higher education institutions and mayors.

Another current problem is the high waste production made by the population and their management. The waste management activity includes the collection, transport, recovery and disposal of waste. The priority objectives of waste management are prevention and reduction of waste production and their degree of danger. (Pascu R., 2009, p. 57) The development of clean technologies with low consumption of natural resources and the material and energy recovery of waste, its transformation into secondary raw materials or the use of waste as an energy source is being pursued. Evidence of waste management is done by waste generators, as well as by those authorized to carry out collection, transport, temporary storage, recovery and waste disposal activities. For the financing of the waste management program, 101.36 million lei were spent in the period 2008 - 2012, according to the data presented on the website of the Environmental Fund Administration. The largest number of projects in 2008 amounted to 21, 27 million lei as compared to 2011 when four companies attracted amounts of 35.2 million lei for waste management.

Bicycle traffic contributes to the formation of viable and economically developed cities. The Ministry of Environment and Forests supports the creation of bicycle paths, because encouraging cycling instead of the car contributes to the reduction of pollutant emissions, a goal imposed by the post-accession treaty signed by the Romanian state with the European Union. To this objective is added the advantage that the use of bicycle tracks contributes to decongesting traffic, problematic in certain areas of large urban agglomerations. Bicycle tracks are part of the air quality management programs developed by environmental authorities, and through them are

proposed the creation of green spaces, the construction of detour belts and the establishment of bicycle tracks. Making bicycle infrastructure does not have to be done to the detriment of pedestrian areas but to the detriment of the space used by motorized traffic, aiming at the balanced development of all relevant modes of travel, while encouraging a change to more efficient models.

However, the program is not in progress in 2017. Funding is granted up to a maximum of 90% of the total eligible project value, without exceeding the maximum amount that can be granted to a beneficiary. The maximum amount that may be granted to a county or an administrative-territorial unit declared according to the Law no. 351/2001 regarding the approval of the National Territory Planning Plan Section IV - The network of localities, city, municipality, for a project is 2.5 million lei. The types of projects funded by the Program are: a) the realization of cycling tracks on a new, single-track site; b) the creation of bicycle tracks on pre-existing or single-pavement sidewalks. ([www.afm.ro](http://www.afm.ro)) The last open grant session was in 2011.

Climate change is a serious problem because both the natural and socio-economic systems are sensitive to climate change and the magnitude and speed of these changes will have a significant impact. Between 1990 and 2000, the number of natural disasters was three times higher than in the 1960s-1970s. The vast majority of these disasters and the damage they caused were caused by extreme weather phenomena. Unlike extreme meteorological phenomena, in which case the damage is caused in seconds, minutes or days, damage caused by meteorological elements could become evident in a few months or even years. (Terra Mileniul III, 2012)

To become climate-resilient, a country can invest in prevention and protection measures to mitigate the risks. During the period 2009 - 2014, 743.2 million lei were used for the program for diminishing / removing the effects caused by meteorological phenomena. According to the centralized data from the Environmental Fund Administration website, 13 beneficiaries were eligible to receive funding during the mentioned period, of which the Romanian Waters Administration attracted 96% of the funds, ie 713.8 million lei in the framework of 7 projects. It is essential to monitor the risk of climate change on a national scale. (Ministry of Environment and Climate Change, 2014)

The program to stimulate the renewal of the National Park of Tractors and Agricultural Machinery, initiated in 2011, also called the "Rabla" for tractors, was a failure due to bureaucracy. Through this program, those who

owned old tractors or other auto-propelled vehicles, such as combines, could deliver them and instead received a ticket worth 17,000 lei, but no more than 40% of the purchase price without VAT of a new tractor or new self-propelled agricultural machinery. (Order of the Ministry of Environment and Forests No. 1.995 / 2011) 17 companies were accredited to sell machines through the Rabla Tractor program, while a significant number of economic agents were declared ineligible. The documentation was very laborious and complicated for an ordinary farmer, and approvals were too long.

It should be mentioned the program on integrated coastal zone management, a program currently not funded by environmental authorities in Romania and for which there are no published financial data. Aspects of coastal management are contained in a master plan. The Master Plan reviews the shore-side strategic options that could be applied to coastal erosion management. The current coastal zone management regime is reviewed and evaluated taking into account existing means of protection, the probable status and probability of their life, and the impact that the means of protection currently have on shore. (A.N. Apele Romane, 2011, p.136)

The list of financing programs that are not current funded ends with a financing program aimed at reducing air pollution. In order to reduce the impact on the atmosphere, projects worth 83.1 million lei were financed in the period 2008 - 2012. The most numerous projects, 17 in number, were submitted in 2008 and attracted a financing of 15.3 million lei, as compared to 2011, when 9 projects with a significantly higher value of approximately 23.8 million lei were financed. According to the centralized data on the Environmental Fund Administration's website, 32% of the amount of funding in the mentioned period concerned projects submitted by the local councils of the various localities in the country, and the 68% difference was targeted at projects submitted by the private environment.

### **3. Conclusions**

From the analysis of the programs that the Environmental Fund Administration has suspended from the course, a series of simple conclusions is reached: there is a deficiency of information regarding the projects carried out from the environmental fund money, there are a number of theoretical environment destinations, found in the legislation, but lacking practical applicability. It is possible to divide the environmental programs presented in the paper into two categories: with real applicability (eco-civic, renewable

energy, waste management, bicycle tracks, energy efficiency improvement of buildings) and without practical applicability (eco-business, renewal of tractors, integrated coastal zone management, biodiversity, compost, ecotourism).

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