

# HUMAN VALUES AND ENVIRONMENTAL PROTECTION REFLECTED IN FINANCIAL STRUCTURES AND INSTRUMENTS USED IN ROMANIA

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**ABSTRACT: Human Values and Environmental Protection Reflected in Financial Structures and Instruments Used in Romania.**

It is obvious that human activity is currently leading to environmental degradation. For this reason, new development models must be identified that allow protecting the bearing capacity of the environment, the only way being the reduction of the intensity of pollution caused by human activity and the promotion of human values in balance with nature. In this sense, in our opinion, economic development can only be sustained if the protection of the environment is ensured. Otherwise, the gradual erosion of the environment will lead to the impossibility of economic growth and imbalances in human values. In our paper, we propose, based on empirical research, to define environmental protection reflected in the structures and financial instruments used in Romania. Moreover, given the European Green Deal applicable until 2050, which leads us to argue that this agreement is only possible by appealing to human and ecosystem values.

**Keywords:** *human values, environmental protection, financial instruments, sustainability*

*JEL code: A19, P28, G23, Q01*

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## Introduction

The relationship between human activity<sup>1</sup> and the environment can be presented schematically as in the following figure. The place of the polluting agent is obvious in the “human system”, but lately the “environmental economy” has appeared and is developing in our country, which, although it acts as a subsystem of the economic system, nevertheless, through the products and services offered by the agent economically, it reduces the level of pressure of the human system on the environmental system.

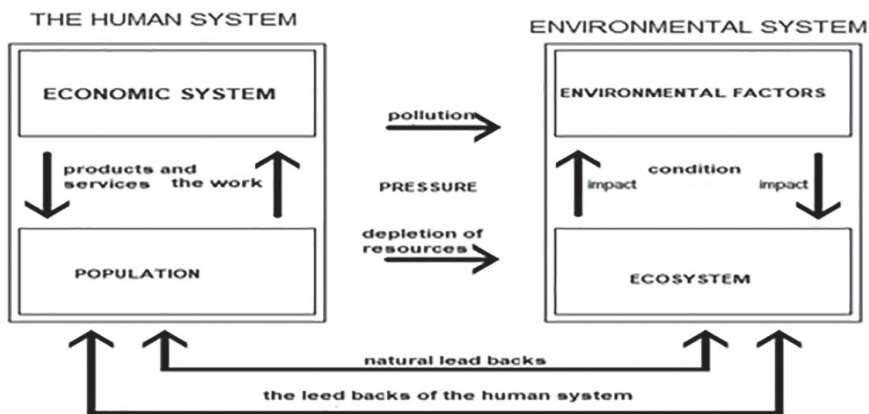


Figure 1. Relationships between the environment and human activities

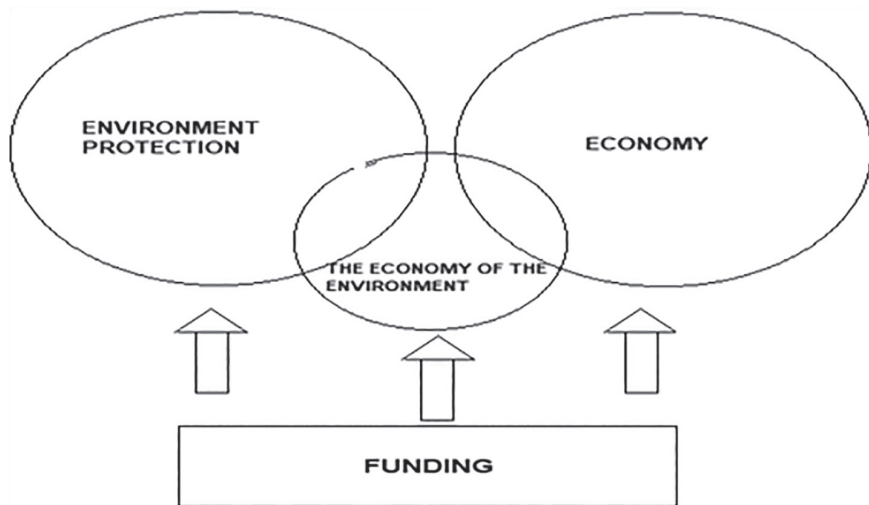
Source: own processing

From this perspective, as can be seen from the following figure, the financing of environmental protection in Romania must be viewed under two aspects:

- ◆ financing of environmental protection;
- ◆ financing the environmental economy.

In Romania, after 1990, several trends were manifested, among which we mention: the economic decline led to a reduction or even improvement of some parameters that define the “*state of the environment*”; the quasi-total freedom of economic agents led to ecological accidents with

1 Ioan-Gheorghe Rotaru, “Plea for Human Dignity”, *Scientia Moralitas. Human Dignity - A Contemporary Perspectives*, The Scientia Moralitas Research Institute, Beltsville, MD, United States of America, Volume 1, 2016, pp. 29-43.



**Figure 2. Involvement of financing in the environmental protection process**

Source: own processing

significant local, regional, national and even international implications; legislative and institutional changes led to a slow reaction of the institutions to the issue of environmental protection; the lack of financial resources led to a “*motivation*” of the organizational links involved in environmental protection for reduced activity; the structure of the economy, in general, and of industry, in particular, leads to the use of internal natural resources with a high pollution potential. For example, the industry uses ores with a low content of useful substances, lignite with inert material in the structure and with a high content of sulfur, to which are added imported resources, such as crude oil and sulphurous fuel oil and apatite that contain up to 80% inert substances and so on.

*The quality of the environment* in our country registers significant gaps compared to the requirements of the environmental standards at the level of the European Union, which is due to the low investment level in terms of quality and quantity for the development of the environmental protection infrastructure. The method of final waste storage is the main cause of environmental pollution, especially of the soil, surface and underground water, every year more than 80% of the generated waste is stored. As was foreseen in the National Plan for the Adoption of the Community Environmental Acquis, in the field of environmental protection, in addi-

tion to the aspects of legislative transposition of the Community environmental acquis (especially in the areas of environmental impact assessment, air quality, waste management, water quality, control of industrial pollution, chemical substances and noise, aspects regarding the strengthening of specific institutional capacity were also mentioned.

*Currently, the short - and medium-term priorities* refer to the strengthening of the institutional capacity necessary for the implementation of harmonized legislation and environmental policy, both at the central and local level; the development of a financial strategy, as well as detailed investment plans in sync with the priorities established within the European Green Agreement; maintaining and supporting programs within the Environmental Fund; the provision of high-performance equipment for monitoring the quality of the environment and the accreditation of laboratories in the field of air quality and water management; modernizing the information system to ensure an efficient exchange of environmental information, in accordance with the requirements of the European Environment Agency.

## **Research methodology**

To support the research methodology, the classic tools of observation and examination, research methods based on the basic principles of scientific research, namely: “competence, objectivity, truth, methodology, demonstration, correlation, evaluation of results, utility and psychomotor” [1]. It will use procedures based on factual analysis, intensive documentation at the level of domestic and international literature, using existing databases and scientific material in the endowment of the libraries of specific institutes in Romania and internationally. The methodology of the work has as direct tools the collection of data and information from the literature and from the existing practice in public and private institutions, but especially scientific articles published on specialized research networks (Researchgate, Academia.edu, etc.), published articles, various magazines scientific, relevant specialized books in the field of reference, legislation, analysis and studies, official documents of various fiscal bodies, fiscal documents and the interactive database of the European Commission, other relevant sources identified in libraries: the Romanian Academy with related institutes, the National Library, the National Institute of Statistics, the National Insti-

tute of Economic Research, etc. Also, in the methodology we will analyze the studies carried out at the European level as a result of surveys carried out among the respondents of the member states, using the comparative, analytical, descriptive method, non-participatory and participatory observation, the use of a set of information sources, the collection of existing data at the European level. The work is also based on annual reports, publications, consolidated statistics provided by the European Commission, OECD, published annually, data that have been processed to provide an overview and analysis of the most important changes taking place in Europe as a whole, but especially with the specialized literature on mountain economy, so specific for the understanding of the studied phenomena, and especially in Romania.

## Research results

Considering the importance of a unified and coherent perspective on the priorities regarding the protection of the environment, the Government of Romania developed, promoted and adopted strategies and documents with an important role in improving the related legislative framework.

Thus, starting from May 2000, when the “*Strategy of environmental protection in Romania for the short and medium term (2000-2004)*” was developed, which presents the priority objectives and responsibilities of the institutions and structures involved in this sector of activity, continuation with strategies for each programming period, including the current 2021-2027 period.

Considering the requirements of the *National Strategic Plan* from the current programming period, which envisages an economic and social development at the local level with an orientation on the green and digital component, those strategic projects that will have an integrative role in terms of view of the environmental protection activity.

Environmental problems have amplified and intensified, accidents and ecological disasters are becoming more and more serious, covering large territories.

In this sense, any projects that may harm the environment must be abandoned, if they do not bring social, economic and ecological advantages for large groups of people. If, for example, at a given moment it was considered that the reproduction in the economic circuit of approx. 145 thou-

sand ha from the *Danube Delta* would solve the grain problem in Romania, of course the action failed from the beginning and along the way it was slowed down and abandoned. In the economic development of Romania, the Danube Delta is not only a “*Biosphere Reserve*”, but also a land inhabited by people who need to be helped out of poverty, by encouraging specific activities. The Danube Delta must be planned as a tourist area only on some restricted territories, so as not to affect the original wild form, especially of the birds. It is worth noting that currently numerous species of flora and fauna of the Delta are conserved and represent a treasure for Romania.

Given the particular interest in the health of the environment, it is considered that the use of advanced and global financial mechanisms is absolutely necessary.

With reference to small and medium-sized enterprises, it should be noted that:

- ♦ *the phenomenon of pollution is not a prerogative of large enterprises; SMEs pollute the environment proportionally to their size;*
- ♦ *product quality standards, environmental restrictions are the same for small businesses as for large ones;*
- ♦ *small and medium-sized enterprises are at a disadvantage in the institutional process that concerns production, the treatment of polluting effluents, the development of non-polluting technologies. It is the task of the government authorities to pay more attention to these categories of enterprises in order to help them in the process of ecological survival through financial facilities, technology transfer, access to less polluting or renewable resources, administrative and financial facilities in case the materials raw materials are formed from waste or by-products of the process, coming from large industry.*

*Environmental protection* cannot be initiated and practiced exclusively by private individuals; it must be the result of close collaboration between the state and industrialists. If they do not perceive the ecological meaning of technical progress, they must be forced by economic and even administrative levers to act in this sense. Without investors' awareness, it is not possible to create less energy-consuming and less polluting industries. State intervention with certain fiscal and financial facilities would bring industrialists closer to ecology.

The natural questions that should be asked are related to the following situation that can be created: is it necessary to spend more or less, or to

improve the existing norms of nox emissions? Much more important are the preventive measures than the curative ones, to reduce the consequences, and all these are treated through the prism of the social costs they require.

*Combating pollution and protecting the environment* should be carried out both at the national and local level in Romania by creating special funds and appropriate financial mechanisms should be established to help reduce the emission of gases that cause the greenhouse effect.

The harmfulness of various chemical and biological substances is well known. The effects on the human body are direct and indirect. The direct ones can be prevented by adopting a strategic environmental protection action, correlated with the observance of some admissible pollution parameters, and the indirect ones by a continuous and efficient control of all the products that humans consume.

Taking into account the recycling of products even at the stage of drawing up the sales documentation is generalized, as an action, both in the interest of environmental protection and as a source of raw materials for the supplier company which, for this, has developed its recycling technologies used products.

By valorizing used products by the supplying company, the essence of the "zero impact" concept of manufacturing and using a product with the environment is entered. Under the conditions of increased competition on an oversaturated market, the companies that perform better for environmental protection and that manage to maintain their financial parameters at an acceptable level will win.

In the evolution of the industry, qualitative changes can be seen in the coming years, with repercussions at the level of each production unit, changes that have their origin in factors of the following type:

- ◆ *reducing environmental protection expenses for the beneficiary* (product user) by promoting less polluting products, by recycling them, by promoting their post-use, by extending the after-sales service;
- ◆ *the tightening of regulations imposed by governments, local authorities, regional agreements or international agreements regarding the protection of the quality of environmental factors.* Thus, the tax on the carbon content of fuels, the authorization of the use of only gasoline without lead-based additives, the regulation of cross-border pollution with sulfur oxides, the protection of large water bodies, border waters, etc. appeared.

Governments seek to make polluters pay for the effects of their activities on the environment (internalizing environmental externalities). As a result, manufacturing costs will increase. Those that manage to adapt on the fly, to perfect their technologies, to improve the ecological parameters of their products in order to compensate for the increase in costs, will survive. By promoting non-polluting technologies, by recycling process by-products and used products, even benefits can be obtained.

The entry into force, on February 1, 1995, of the Association Agreement of Romania with the European Union, represents the first step in the (seemingly long) process of integrating our country as a full member of the EU. In this context, adapting the Romanian economy to European requirements and standards becomes a mandatory condition for ensuring competitiveness. EU countries have developed their strategies, policies and legislation with the aim of including environmental protection among the criteria for controlling industrial product markets.

The process of adapting the industry to the requirements of environmental protection meant for the EU a period of more than 20 years of efforts (financial, in the field of research-development, legislation, etc.), of imagining and verifying financial instruments and mechanisms that would materialize in practice industrial concepts, strategic objectives, national and community policies regarding environmental protection.

*Romanian industry* has to recover these gaps in terms of the performance of technologies and products, the size of the gaps being different, however, from product to product or from one technology to another. However, we cannot fail to notice the existence of gaps at the level of the industry as a whole, as well as obvious gaps regarding the legislative framework, product quality standards and environmental factors, and the quality of ecological management.

A differentiated approach to Romanian products and technologies, carried out according to the criterion of the impact with the environment and in the light of the ecological restrictions imposed on the EU markets, allows the detachment of some opportunities for the industry in Romania.

Knowing this experience, taking over the objectives and establishing own policies, adapting the legislation and designing the appropriate instruments and mechanisms (administrative, institutional, economic-financial) are aspects that can significantly reduce the gap between our country and developed countries in the field of ecological performance of products.



When making the decision to make some investments in the industry in Romania in the last 20-30 years, it was first resorted to importing technologies that, at the time of purchase, were for the most part performing worldwide. The non-development of these technologies and products in line with world trends and practice, directing the national research-development potential towards the assimilation of products and technologies led to the appearance and accentuation of the moral wear of the production infrastructure and partially of the product nomenclature. Resuming contacts with some of the basic suppliers for technologies and product licenses could be a solution for bringing up to date the performance of industrial technologies and products. External cooperation favored by the new legislative framework (joint companies, concessions, etc.) could reactivate some manufacturing for the benefit of the internal and external market.

*The identification of competitively performing products*, the drawing up of their nomenclature, the correction of quality standards and according to the ecological criterion and their promotion on the internal and external market are strictly required.

*The responsibility on this promotional chain* is unfortunately divided on several levels and decision-makers that are difficult to order in a logical scheme, according to the criterion of national interest. Simplifying the organizational (institutional) framework at the macroeconomic level, defining responsibilities at the microeconomic level, supporting the private sector could make this real opportunity fruitful.

The support given by the government institutions to the stimulation of the internal market (and other than through investments, which were at insignificant values in the last 5 years) could be materialized in the following forms:

- stimulating the market through subsidies from the budget. Directing subsidies to the final beneficiaries of industrial products (in this case, products with ecological performance) would prove to be much more effective for the entire national economy, forcing companies to be dynamic, at the request of the economic sectors located upstream of the manufacturing process.

- ♦ protection of the internal market against polluting products;
- ♦ the distribution of research funds allocated by the government and the programs managed by the European Commission towards topics of interest to economic units at national and European level (re-

ardless of the form of ownership) towards the continuous improvement of the quality of eco-performance products.

In what follows, I will try to outline some indicators necessary for the reevaluation of the entire economic activity in terms of efficiency, correlated with environmental protection issues. These indicators also serve to choose priorities in the financing of various projects in the field of environmental protection.

Thus, each economic unit will be assigned a so-called ecological grade, calculated according to economic profitability and the degree of direct and indirect pollution:

$$GE = \frac{RE}{\text{Pollution rate}}$$

where:  $RE = \text{economic profitability}$

$GE = \text{ecological grade}$

$\text{pollution quota} = \text{own pollution quota (ki)} + \text{indirect pollution takeover quota (kp)} = \text{the part of pollution carried out by other enterprises internalized by the enterprise in question.}$

The optimum is achieved when the economic return is maximum, and the pollution rate is as low as possible.

Achieving a high profitability is the problem of economic management, and of a pollution rate as low as possible is the problem of ecological management. So this ecological degree is optimal when the two interests, economic and ecological, are harmonized.

In order to determine the *own pollution rate* ( $k_i$ ), a number of levels of the own pollution rate will have to be established in such a way that the qualitative leap of the enterprises is as large as possible when moving from one level to the other.

To determine the indirect pollution take-over rate ( $k_p$ ), the calculation formula will be applied:

$$C_i = n \times K_i$$

in which:

$n = \text{utilization coefficient}; K_i = \text{own pollution quota}$

The determination of  $n$  is done as follows:

- for materials the amount of finished products

$n = \frac{\text{the amount of raw material}}{\text{the amount actually consumed}}$

- for technological materials the amount actually consumed

$n = \frac{\text{the quantity established by the norm (precalculated)}}{\text{the amount of energy actually consumed}}$

- for energy resources the amount of energy actually consumed

$n = \frac{\text{the value of the required energy (precalculated)}}{\text{the value of the required energy (precalculated)}}$

In order to carry out an efficient activity from all points of view, it is necessary:

In order to carry out an efficient activity from all points of view, it is necessary:

- ♦ *the share of own pollution should be as low as possible*, something that is currently a difficult objective to achieve, due to the lack of financial resources for the introduction of new technologies and the protection systems necessary to equip the existing installations;
- ♦ *achieving a quota for taking over pollution from other economic agents at a value as low as possible*. This is easier to achieve because it only involves a reorientation on the raw material and energy suppliers, as well as an efficiency of the production activity, in the sense of the rational use of energy availability, technological materials and the reduction as much as possible of the resulting waste following the manufacturing process.

There is a tendency to establish relations with enterprises with a GE coefficient as low as possible, therefore to stimulate unprofitable activities, blocking the tendency to make enterprises more efficient.

Once the companies are placed in an ecological grade, this grade will have to be made public and the economic agent will have to add the number that represents the ecological grade to the name. This number will be included in all documents circulated by the company. When the economic unit appreciates that, through the measures taken, a change has been made in the report that defines the ecological degree, a supporting calculation memorandum will be drawn up by which the transition to another level will be requested, in order to be able to take advantage of the advantages offered by this one.

In situations where the *economic benefits cannot be quantified*, the average cost can be used.

$$N \cdot k$$

$$\text{average cost} = \frac{\quad}{\quad} I$$

where:

N = number of affected persons in the unit

k = the coefficient of exceeding the pollution level allowed for that unit

I = the cost of the investment in the field of environmental protection borne by the enterprise

*The organization of the implementation process of the financial mechanisms* in the ecological development policy of Romanian companies involves the following stages:

- ◆ adapting the legislative framework in the financial - accounting field to reflect the requirements imposed by the community acquis in the field of environmental protection;
- ◆ monitoring the general level of pollution and intervention through financial levers in the moments and places where the allowed quotas have been exceeded. In this sense, the ecological grade can be a viable benchmark both at the macroeconomic level and for each individual economic agent.

In order to harmonize micro and macroeconomic interests, laws are needed that impose permissible limits for pollution and a system of levers and economic-financial mechanisms that stimulate environmental protection concerns and sanction reported deviations.

In general, the effects of pollution can be found at two levels, namely:

- ◆ at the level of the generating enterprises, in the form of internalities, represented by the inclusion of the costs of treating polluting emissions in the manufacturing costs;
- ◆ at the level of the entire society, in the form of externalities, representing the social costs necessary to restore the degraded environment.

The internalization of externalities is necessary because in this way the responsibility of entrepreneurs towards environmental problems increases. The idea that society as a whole, through various means, must bear the anti-pollution costs is thus abandoned.

To make polluters pay, the government must issue economic and legal regulations that allow the integration of ecological considerations into programs of economic development and conservation of environmental quality factors.

In this sense, the polluter-pays principle represents the rationale for internalizing the costs of pollution and environmental degradation.

*Environmental costs are, in particular, those borne by society.*

The direct expenses, regarding the pollution control and prevention installations through control technologies of the "outputs" from the technological process, are the main quantifiable costs, and the costs deriving from investments in clean technologies (which bring changes in the production process and in the financed products) are difficult to quantify.

*The compatibility of financial mechanisms with the polluter-pays principle is done with the help of relative sizes and aims at the measure of participation in the total cost of pollution control and prevention and the proportionality between the amount of pollutant emitted and the penalty paid.* This approach also leaves room for subsidies, which are considered to help the industry to implement restrictive measures (keeping within the permissible limits for pollutants).

*The complex financing mechanism involves a series of flows and circuits common to other fields as well as some specific to environmental protection.* Thus, the financial flows arising from the use of the state budget as a financing instrument for environmental protection are identical to those used for the other financing areas. At the microeconomic level, however, financing can be achieved through some circuits and flows specific to the field of environmental protection. In this sense, a varied range of financing methods is used, such as the support of associations or foundations operating in the field, lending through the Environmental Fund, lending through the banking system, subsidizing through the local budget, etc.

It is obvious that the process of financing environmental protection involves a series of stages, among which we mention:

- ✓ establishing the need for funds for environmental protection;
- ✓ collection of funds;
- ✓ distribution of funds;
- ✓ use of funds;
- ✓ controlling the use of environmental protection funds.

Within this mechanism, a multitude of organizational links intervene, each with its own interests, but which should, at least theoretically, harmonize in order to implement projects for depollution and/or improvement of the “*state of the environment*”.

*Establishing the need for funds for environmental protection*

In the field of environmental protection, in Romania, the determination of the necessary funds is carried out in two plans: at the national level and at the local level.

At the local level, in the stage of establishing the need for funds for environmental protection, the problem becomes more complex, because there are a series of organizational links that intervene, each with its own interests, and which, at this stage, only work tangentially.

Thus, the local budget (at the level of municipality, commune, city) foresees a series of expenses for environmental protection, but the proposals are made by the local administration bodies, through their own information system and without a collaboration with the central administration bodies in the territory. Moreover, the involvement of economic agents in establishing a “global” level of financing needs is not realized.

At the level of economic agents, establishing the need for funds for environmental protection is done in relation to a number of factors, such as:

- ✓ field of activity. In this sense, economic agents operating in the environmental economy allocate most of their own and attracted funds for this. “Polluting” economic agents are forced to provide certain amounts for environmental protection through the intervention of the Environmental Protection Inspectorates, which can withdraw their environmental authorization or fine them.
- ✓ the competition. It is obvious that the existence of a monopoly in a field makes the economic agent provide sums for environmental protection to the extent that they are transferred to the consumer, without any impact on his level of solvency or liquidity;
- ✓ the behavior of the banking system. Economic agents provide amounts for environmental protection in relation to the level of interest on bank loans received. The neutrality of the credit system in relation to the field for which it is used also induces a reduction of interest in investments in environmental protection;

In conclusion, *in the stage of determining the need for funds for environmental protection, efforts are still needed to define stable flows and circuits that provide complete information to the decision-maker in the development of financing programs in the field.* The structuring of the environmental problem on levels (national, regional, local) also implies the definition of an adequate financing structure. The choice of a package of investment projects in the field at national level, in accordance with Emergency Ordinance no. 93/2001, will be made by the Environment Fund, but it must also be correlated with the provisions of the state budget (where environmental protection must be included in a separate heading).

At the regional level, although there is a *national regional development program* and an organizational structure has been created in this sense, environmental protection aspects should be reflected in the financial substantiation of projects in the field of environmental protection that concern one of the eight regions delimited through the Regional Development Agencies (ADR).

At the local level, in the stage of establishing the need for funds for environmental protection, there must be better cooperation between the local administration and economic agents. Without an active support from the local administration and the representatives of the central administration at the local level, economic agents cannot and will not want to develop a realistic investment financing requirement in the field.

*Collecting funds for environmental protection is a rather difficult stage to achieve both at the national and local level.*

At the national level, the Environment Fund (at least according to the latest normative acts) collects funds mainly through interest on granted loans, some taxes and budget allocations.

At the local level, the collection of funds for environmental protection is done through the system of taxes applied by the County Environmental Protection Inspectorate for the services provided (audit, impact studies, environmental authorizations, etc.) and from the application of fines in the field, for economic agents that pollute .

At the level of economic agents, the collection of funds for environmental protection is carried out in several ways:

- ✓ through bank loans;
- ✓ through credits obtained from the Environment Fund;
- ✓ by using investment funds operating in Romania;

- ✓ by collecting insurance for environmental accidents;
- ✓ through sponsorships from various domestic or foreign associations or foundations;
- ✓ through leasing;
- ✓ by own effort.

The use of one or more funding sources depends on the ability of the respective agent to collect these funds, as well as on their own interest in the field of environmental protection.

The collection of funds for investments and various services in the field of environmental protection must be consistent with the amplification of environmental problems, as well as the requirements included in the European Directives and Regulations, which implies a constant financial effort in the field. However, the solutions for attracting sufficient funds for the field of environmental protection are to appeal to a greater extent to some solutions not yet explored. In this sense, the use of the leasing system can be a solution, like that of insurance. Although they involve additional costs, they are much lower than the current level of bank interest rates or the rarity of subsidies and “sponsorships”.

Also, the mandatory application in the economy of some viable instruments, such as the manufacturing license or the generalization of the quality control system, will in the future lead to an increase in the interest of economic agents for alternative financial sources that are currently not used (bank loans, e.g.).

The allocation of funds for environmental protection should be concentrated at the local level, where the needs in the field are best known. It is obvious that the local level involves investments in projects “implemented” at an economic agent or carried out by it for the benefit of the local community. Also, at the local level, the sums for ecological accidents should be allocated.

At the national level, the financing requirement as well as the sources of coverage should be expressly specified in the state budget. Also, the Environmental Fund should have the possibility of direct financing of projects in the field of environmental protection, and the level of interest required for the loans granted must be below the level of interest in the banking system.

- ◆ the delimitation of expenses for environmental protection in the structure of the income and expenses budget of the local admin-



istration. At the local level, covering financial needs in the field of environmental protection must also be achieved through the use of alternative sources, such as sponsorship or external financing. It is obvious that in this sense, a greater effort is needed to “raise the awareness” of potential financiers.

- ♦ the application of EU directives and regulations in the field of manufacturing licenses and the introduction of the quality control system should be generalized. This would lead to a greater effort by economic agents to improve products and technologies. We believe that in this sense, there must be a more rigorous control of future costs for economic agents, autonomous kings or commercial companies that are monopolies in the field, because the effect will be to increase the general level of product prices and through the propagation effect an increase in inflation level.

*The financing of environmental investment projects* represents a new sector in the context of the European Green Agreement, and the human factor has a decisive role in the development of financial mechanisms and instruments in Romania. Economic reforms led to the over-exploitation of some natural resources, while public education and awareness of environmental issues remained limited.

In conclusion, legislative regulations and with the involvement of civil society, together with a more severe application of environmental legislation and the recovery of the economy, in a business climate that encourages environmental investments, will determine the need to finance environmental investments.

The measures taken so far by the Romanian government to encourage environmental investments have led to the creation of more important funding availability from local budgets and will facilitate access to large infrastructure projects.

From this perspective, the banking system will play a rather important role. The loans granted by commercial banks are generally “neutral” in the field of environmental protection from the perspective of the granting methods and/or the related interests, and can be:

- a. short-term loans, with a maximum repayment period of 12 months;
- b. medium-term loans, with a repayment period between 1-5 years;
- c. long-term loans, with a repayment period over 5 years.

Among the existing forms of financing environmental investment projects, non-refundable loans are the most requested, but their size and number are insufficient. Most of the time, the non-refundable loans are structured so as to cover only a part of the total costs of the project.

**Investment funds provide an alternative financing method** to that offered by commercial banks and private investors. The investment funds are addressed to new or growing businesses. The risk assumed by the Fund is greater than that of commercial banks, because, through its own mode of operation, the Fund becomes a shareholder in the investment in which it participates. The cost of capital can be relatively high, compared to the costs of bank interest.

The advantage of financing through Investment Funds, especially for a business at its beginnings, is that the investment is returned after a few years, when the Fund exits the respective business, and not after a short period of time, as is the case with bank loans. **Nine Investment Funds** are active in Romania, most of them also operate at the regional level, in Central and Eastern Europe and in the Commonwealth of Independent States.

In general, these funds have as their initial source of financing foreign capital from government funds or from various financial institutions: banks, private funds, international financial institutions. Most of them are closed investment funds, with a risk capital character. The objective of these funds is to invest in companies with majority private capital, with high profitability and high development potential. There is only one Investment Fund specifically declared to be environmental, Environmental Investment Partners, the others being oriented more towards productive investments.

The considerable effort for the organizational change was designed and carried out to capture in an integrative way the problem of environmental protection in Romania.

## Conclusion

In Central and Eastern European countries, in the logic of reforms, strictly economic issues take precedence. Here, businesses are unable to cope with environmental protection investments, and the population cannot bear new taxes to finance environmental policies. The degradation of the environment is massive, and the option for economic development led to an economic bankruptcy, especially through a waste of the accumulation funds on which

the recovery was based, with an orientation also towards the qualitative recovery of the environment. Therefore, the market policy has marginalized or ignored the environment, promoting the “balance of individual interests” to the detriment of the interest for the quality of the environment.

Consumer preferences, in the context of the crisis, are for agricultural and industrial products and not for quality environmental factors, unlike in the West, where the interest is the opposite. Under these conditions, the formulation of requirements at the level of economic units, for the benefit of environmental protection, can only be considered after the completion of the legislative framework and the creation of the instruments and financial mechanisms necessary to comply with these laws. After this mandatory stage, the primary task for each enterprise can only be one: compliance with laws and quality norms of environmental factors.

The requirements for an ecological development of the economy that must be taken into account at the microeconomic level differ depending on the ecological capacity of the economic agents. I will present a non-exhaustive inventory of these requirements in the following:

Category of enterprise	Term requirements:		
	short	medium	long
The companies provided through construction with ecological installations	Keeping the existing installations in working condition	The progressive alignment with the specific quality norms of the E.U.	Sustainable development
The polluting enterprise through negligence: <ul style="list-style-type: none"> <li>- failure to carry out current and capital repairs at the right time;</li> <li>- poor professional training;</li> <li>- lack of personal responsibility for environmental problems</li> </ul>	Compliance with national environmental protection norms	Keeping the phenomenon of industrial pollution under control	Gradual alignment with specific EU quality standards.
Enterprises that operate without environmental protection facilities	Stopping installations until the completion of non-polluting technologies	Falling within the limits of national environmental protection norms	Gradual alignment with specific EU quality standards.
The enterprises that have taken out of operation the facilities for recycling used products	Quick activation of installations	Expanding the activity by organizing own collection networks	Obtaining additional economic advantages
Enterprises that produce recyclable waste	Realization of investments for the valorization of waste	Expansion of the waste recovery activity	Improving the technological processes of capitalization

**Table 1. Requirements for environmental protection**

Source: own processing

The internalization of these requirements in the managerial activity of Romanian industrial enterprises - especially in the short and medium term - can be conditioned by the following elements:

a) **an unfavorable economic-financial situation for the majority of industrial enterprises**, which mostly operate at 40-50% of capacity, lacking financial means, with organizational structures typical of the centralized economy (at least in terms of environmental protection) and with priorities of other nature than those of environmental protection. Only the enterprises that manage to stop or slow down the economic decline of their own activities will be able to include among the management's objectives those of environmental protection;

b) **quality standards are in most cases lower than similar values in Western Europe**. It is known that some countries, Germany in particular, have a sustained policy, including on a financial level, to achieve ever higher ecological performances of products and technologies, thus creating economic advantages. Reducing the gaps between the EU norms of environmental protection and standards in Romania is not simple: new technologies, investments in infrastructure, internal control equipment are needed.

In the process of aligning with European norms, the Romanian industry will only receive help of an informational nature, which, by the way, is expected and normal in a Europe with competitive industries and, in general, with overproduction of goods;

c) **the size (dimension) of the enterprises will be a favorable or, on the contrary, restrictive element in the alignment with the European norms of environmental protection**: small enterprises will be advantaged by their ability to adapt, the volume of investments will be reduced. Large units, financially unproductive, with the unconvincing innovative activity (the research and development function does not yet appear in the organizational structure of the large industrial enterprises in Romania) will hardly find opportunities to become efficient in the field of environmental protection;

d) **the conscious attitude (defeating, overcoming inertial mentalities) on the pollution phenomena and the effects on the personnel is necessary and must be created**. It conditions compliance with existing provisions, technological regulations, quality norms of environmental factors;

e) **there is a correlation between the level of economic development of a country and environmental protection**. Poverty does not favor

compliance with environmental protection measures; the economic recovery will simultaneously mean an increased ecological capacity for businesses to react positively to environmental protection requirements.

As for the private sector of the economy, it requires funds for:

- ✦ compliance with environmental protection regulations and standards;
- ✦ payment of taxes and pollution charges;
- ✦ realization of environmental protection investments;
- ✦ reconditioning of existing installations.

If environmental protection regulations and standards (such as those circumscribed by the objective of joining the EU), as well as economic instruments and financial mechanisms for internalizing environmental externalities are gradually introduced, in parallel with supporting businesses (free consultancy, tax facilities), the private sector will be able to finance itself from internal sources or commercial credits.

**The objective of the financial mechanisms** should be to induce a change in the behavior of companies in terms of environmental protection; therefore, the funds collected through pollution taxes can partially return to the private sector in the form of subsidies for environmental protection investments or even in the form of profit tax reduction, to stimulate economic growth on new bases. Also, for environmental protection investments, loans with automatic renewal can be granted by employers' or industrial associations.

Human values are the "key"<sup>2</sup> to environmental protection reflected in the structures and financial instruments used in Romania.

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