

INCREASED FINANCING FOR THE PROJECTS FOR ENVIRONMENTAL PROTECTION

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Rezumat

Prezentul studiu pornește de la realitatea că finanțarea proiectelor orientate spre protecția mediului este o direcție relativ recent abordată în România, comparativ cu alte state europene. Mecanismele de finanțare a protecției mediului pot fi descrise, prin focalizarea pe statutul lor actual, pe obstacole și oportunități, pe potențialul viitor și pe provocările cu care se confruntă, evidențiinduse o serie extinsă de mecanisme cu potențial considerabil pentru amplificarea finanțării protecției și conservării mediului. Însă problema care rămâne este dacă aceste mecanisme vor fi suficiente pentru a genera finanțarea adecvată pe termen lung, în scopul implementării proiectelor și programelor de protecție a mediului.

În acest context, se impun schimbări majore asupra modului în care este conceptualizată, înțeleasă şi utilizată finanțarea, iar în acest sens, o serie de măsuri vor juca un rol din ce în ce mai important în satisfacerea nevoilor de finanțare.

Abstract

This study starts from the fact that the financing of projects for environmental protection started rather recently in Romania compared to other European states. The mechanisms for environmental protection financing can be described by focusing on their current status, on obstacles and opportunities, on their future potential and on their challenges. This will show a wide range of mechanisms that have a considerable potential to enhance the long-term adequate financing of the environmental protection and preservation. However, the problem that remains is whether these

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Financial Studies - 4/2012

mechanisms will be enough to generate the adequate long-term financing with the aim to implement the programs and projects for environmental protection.

Within this context, major changes in the manner in which financing is conceptualized, understood and used are required, and there are several measures that will play an increasingly important role in meeting the financing needs.

Keywords: financing per project, investments interventions, investments for environmental protection

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Financing the projects for environmental protection and preservation aims both enduring and allocating those financial resources, stable and sufficient on the long term, in a proper form and rhythmically, in order to cover the costs required for environmental protection and to ensure an efficacious and efficient management of the protected areas.

Financing per project presumes that the future flow of funds is the element that justifies the requirement for resources invested in the project. The task of the financing body is to organise the cash flow in such manner that it meets the financing needs of the project, while presenting interest for the agencies, lenders and investors willing to invest in the project.

The organisation of project financing may propose the use of a variety of financial instruments such as indebting instruments; equivalent actions and instruments; aids and donations; intermediary financing through instruments that are mainly in the form of debts; beneficiaries, suppliers and customers-buyers; debt payment collaterals.

The projects are financed within various assemblies of institutions, instruments, areas, geographical and territorial structures, policies and regulations, groups of interest and participants, entities and forms of financing, financing mechanisms etc. They form quasi networks with configurational, compositional and interactional characteristics that may provide, within favourable systemic conditions, flexibility, adaptability, self-organisation and differentiation.

The *initial priority* is to **identify the potential sources of financing**, the efficiency of the potential methods of financing varying with the type of project and its objectives.

Financing the environmental investments is a recently approached direction, after Romania accessed the European Union. This financing supports sectors such as: environmental infrastructure, ecosystems, renewable energy, clean technologies, biodiversity, water shortage, sustainable towns, transportation etc.

The development of environmental investment projects is a necessity in order to achieve the protection of the clean environment, particularly of some sources of raw materials; this can be accomplished by developments in science and technology, by ensuring the direct access to non-polluting technologies that save energy and matter.

These investment projects must take into consideration the general principles of the strategy for environmental protection:

- Conservation, protection and improvement of the environmental quality;
 - Protection of human health;
 - Defence against natural disasters and accidents;
 - Prudent and rational use of the natural resources;
 - Highest cost-benefit ratio;
- Promoting international measures to deal with the regional environmental issues;

It is important to identify the main environmental aspects and to show the possible environmental benefits or improvement that might be included in the investment projects: cleaner productions, less wastes; less greenhouse effect, lower consumption of energy; preservation and improvement of the biodiversity.

The environmental aspects become important and may have a significant impact on it.

The following factors are to be taken into consideration:

- Emissions into the air:
- Spillage into the water;
- Soil contamination;
- Use of raw materials and of natural resources;
- Other problems regarding the communities and the environment.

After having settled the environmental priorities we may focus on the financial and human resources and on the most serious environmental issues, while observing the improvement in public health and in the state of the environment. The next step is to make am hierarchy of the environmental aspects.

Several criteria are to be considered when determining this hierarchy:

a. Is human health affected?

The public health must be protected and it must have priority.

b. Is the environment affected?

The nature and the biodiversity have to be protected, preserved and restored, as essential conditions for life sustainability and for a sustainable development.

c. Is there agreement with the legal requirements?

Following the accession to the European Union, additional criteria have been added in order to *prioritize* the measures that are beneficial for the public health/environment.

The area is expanding because over the past 5-6 years we passed from the stage of acquiring to the stage of recognizing the importance of accumulating funds for the projects in environmental investments.

The main factors that will determine the *expansion* of the concerns for the financing of environmental projects regard:

- Privatization of the industry, which will determine the monitoring of the way in which the environmental legislation is enforced:
 - Limiting the access to subsidies from the state budget;
- Implementing the systems of environmental management in enterprises.

The necessity of investments through projects of environmental protection in Romania also starts from the flaws detected in the specific environmental actions, because the level of the environmental actions didn't produce the expected results: the running actions hold a significant proportion, followed by the accomplished actions and by the actions accomplished in advance (much less); also present are the delayed, cancelled or failed environmental actions (in a proportion almost equal to the proportion of the accomplished environmental actions)

The projects need to be planned, which presumes the following stages:

- 1) Possible manifestation of undesirable environmental effects:
- 2) Estimation of the cost of the different methods of intervention and select the methods with the best cost to benefit ratio;
- 3) Order the investment projects function of the probable appearance of the environmental risks and environmental impact;

The experience shows that the projects for environmental protection may be organised and run efficiently according to an overall coherent plan that includes the priorities resulting from the integration of the scientific, technical, economic and social information, while designing and measuring the influences on all the resources. Each country has to formulate its environmental priorities, which are different from one country to another.

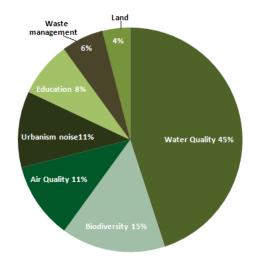
Prioritization becomes necessary when the environmental problems overlap the economic and social problems; this is the key to the successful environmental strategies and policies.

It is not easy to achieve a balance between the different considerations. The variety of factors that have to be considered is large and the available data is often doubtful. They are complementary and must be applied simultaneously:

- The elements of economic policy with beneficial environmental effects will be supported, as much as possible;
- Policies clearly targeting environmental protection will be adopted; a system of incentives and environmental protection institutions will be established:
- The environmental protection expenditure will focus on those projects that ensure the highest cost to benefit ratio;
- Modest resources will be allocated to the programs whose expected cost to benefit ratio is expected to be high, but which runs on the long term.

The investments specific to environmental projects must be carried out within an organised framework based on the planning of activities depending in the priority areas of intervention. Thus, the proposals of environmental protection to be financed in Romania are grouped according to the specific environmental areas (see the chart below).

Chart 1
Distribution of the environmental protection projects by specific environmental areas



Source: National Agency for Environmental protection (ANPM)

Within the context of the stringent need to defend the environment from the socio-economic activities with a major risk on the environmental factors, the *environmental investments* of the specific priority programs must be reconsidered towards the accomplishment of priority objectives regarding the:

- Defence against natural disasters and avoiding as much as possible their occurrence;
- Arrangement of the hydrographical basins in order to rehabilitate the existing water sources;
 - Eco-efficient management of the forestry areas;
- Ecological reconstruction by afforestation works on the degraded lands;
 - Establishment of forest belts;
- Ecological reconstruction and preservation of the environmental biodiversity;
 - Development of the environmental institutional capacity.

The identification, drawing, administration and allocation of the financing sources for the environmental projects are in full agreement

with the requirements for the preservation of the environmental quality and decrease of the adverse effects of the human, economic and social activities.

The sources of financing for the environmental investment projects fall into two categories: internal sources and external sources.

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

The external sources of financing for the environmental investment projects, identified by the Ministry of the Environment, as being the most suitable partners for the loans with EU co-financing are the international financial institutions that grant loans for the environmental projects in the form of **foreign credits**:

- a. Fund for Social Development of the Council of Europe;
- b. European Bank for Reconstruction and Development (EBRD);
 - c. European Investment Bank (EIB);
- d. World Bank through the Global Environment Facility (GEF);
 - e. United Nations Development Program (UNDP);
 - f. Bilateral donors.

The most important bilateral donors for the environmental investment projects in Romania are:

- **Denmark**. The projects financed by this country were used to develop sectorial strategies for harmonization with EU requirements on the "air quality and climacteric changes" and "control of industrial pollution and risk management" and for the continuous assistance in the transposition and implementation of EU legislation on air pollution;
- **Netherlands** provides assistance through MATRA program which involves technical assistance for the promotion of a modern and efficient environmental legislation, implementation of the legal provisions regarding the environmental fund; financing strategies for the international environmental investment projects; establishment and monitoring of the systems specific to the extra-budgetary incomes used by the territorial inspectorates for environmental protection, implementation of the environmental instruments;
 - Other external donors: Japan, Switzerland, Sweden.

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After its accession to the European Union, Romania benefitted until 2013 of about 30 billion Euros allocated through the following funds:

- 1. European Regional Development Fund;
- 2. European Social Fund;
- 3. European Cohesion Fund;
- 4. European Fund for Agriculture and Rural Development.

On this occasion, the interested institutions from Romania have the possibility to draw non-reimbursable funds with the precise purpose of financing the environmental investment projects.

Because it was noticed that the financing sources are not enough, a mechanism for self-financing of the environmental projects was designed, which to ensure the main additional resources that were required. These main sources for self-financing are:

- Fees for the release of environmental agreements and licences;
 - Technical expertise regarding the laboratory analyses;
 - Technical counselling.

The main subjects of the projects for environmental investments in Romania regard the:

- Control of pollution in agriculture;
- Preservation of the biodiversity;
- Sustainable preservation and management of the ecosystems;
- Establishment of IT systems for defence in case of natural disasters;
- Reduce the greenhouse gas effects by improving the energy efficiency.

Presently, this financing supports sectors such as the environmental infrastructure, the ecosystems, the renewable energy, the clean technologies, biodiversity, water shortage, sustainable towns, transportation etc.

The positive results to be obtained should be much above the environmental damages in case no action is taken; there also are some benefits so important that they cannot be evaluated, such as improving human health, maintaining ecosystem biodiversity; the intense manifestation of the concern for environmental protection is a major necessity for survival and progress, being a problem of interest for the economic and social evolution.

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Financing the projects of environmental protection must ensure that the progress of the project uses cheap, readily accessible and safe financial resources; it must also allow covering all costs, the commercial and financial operations associated to the different aspects of the projects.

The future environmental protection in Romania must be punctual, distributive, correlative and multiplicative, in an extended and prospective spatial and temporal vision; in a very brief period we will have to understand the reality of an already over-polluted environment that can only accept decreasing amounts of noxious pollutants.

References

- Hallegatte Stephane (2009), Strategies to Adapt to an Uncertain Climate Change, http://www.4shared.com/get/JgKa1bGu/Hallegatte 2009-Strategies.html
- Harkema Saskia (2003), A Complex Adaptive Perspective on Learning Within Innovation Projects, The Learning Organization, Bradford, Vol. 10, Issue 6
- 3. Pelling Mark, et al. (2008), Shadow Spaces for Social Learning: A Relational Understanding of Adaptive Capacity to Climate Change within Organizations. Environment and Planning
- Piciu G., Manolescu Gh., Drăgoi C., Chiţiga G., Bălăşescu F., Borza M., Predescu I., Picu A. (2012), Evaluation of the risk of financing environmental protection projects (in Romanian), Financial Studies, Bucharest, Vol. 55, Issue 1, p.132-143
- 5. Remington Kaye, Pollack Julien (2010), *Tools for Complex Projects*, Gower Publishing Limited, Farnham
- 6. Schiller B.R. (2003), *The Economy Today* (9th edition)", The McGraw-Hill Companies, Inc., New York
- 7. Stern N. (2006), *The Economics of Climate Change*, Cambridge, Cambridge University Press, 2006
- 8. Organisation for Economic Cooperation and Development (OECD) (2008), *Economic Aspects of Adaptation to Climate Change Costs, Benefits and Policy Instruments*, Paris, OECD, Project Management Bod.