

# ENVIRONMENTAL ECONOMY AND MANAGEMENT IN THE IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT - CONCEPTUAL APPROACHES

**Oana CHINDRIȘ-VĂSIOIU, PhD**  
Ecological University of Bucharest  
[oana.vasioiu@gmail.com](mailto:oana.vasioiu@gmail.com)

**Madalina TOCAN, PhD**  
Ecological University of Bucharest  
[madalina.tocan@gmail.com](mailto:madalina.tocan@gmail.com)

## **Abstract**

*This paper tries to highlight the importance of environmental economic policies and environmental management, and their impact on sustainable development. The paper shows the fact that environmental policy, as a specialized policy at national and international level, also means the assessing of the environment real situations, finding the negative environmental effects, establishing institutional measures necessary to states organs in protecting and conserving the environment and the importance of an effective environmental management. The paper also demonstrates that environmental policy is closely linked and conditioned by economic, administrative, financial and legislative policy, correlation which is based on a national and international relations as they represent both concrete theoretical and practical relations.*

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## **1. Introduction**

The determination of the European Union regarding the environmental protection measures and promotion of sustainable development worldwide is recognized internationally. The concept of sustainable development requires the implementation of mechanisms and policies that allow both economic development and conservation of the environment, capturing both increased responsibility and economic efficiency in the sense of cost reduction of damage to the environment due to human consumption.

EU policy in this area has gradually evolved from faze of minimum implementation of environmental protection measures, to assuming of greater environmental problems through complex and specific settlement. Thus, the European Union has become a global promoter of sustainable development.

## **2. Environmental Policy in the European Union and Romania**

Main developments in the elaboration of the environmental policies of the European Union highlights two periods: before 2000 and after 2000. Theoretically speaking, environmental policy is one of the youngest EU policies being consecrated in 1986 by adopting the Single European Act ratified in 1987, document through which environmental protection acquires legal basis, attributing European community explicit competence in environmental protection.

With the Treaty of Amsterdam in 1997, environmental policy becomes a horizontal policy of the European Union, which means that environmental aspects are necessarily taken into account within sectorial policies.

Environmental policy after 2000, in addition to the analysis of the evaluating results of the 5th EAP, defined the priorities for the 6th Action Program - 6th EAP (2001-2010) which supports sustainable development strategy and emphasizes the responsibility involved in decisions affecting environment. Here are analyzed and discussed the priority areas of environmental policy provided for PAM-6 for a period of ten years: climate change and global warming; nature protection and biodiversity; health and the environment; conservation of natural resources in waste management. Seventh Environment Action Programme of the European Union - EAP 7 (2014-2020) is the most recent program and it was adopted in November 2013 and will guide European policy until 2020. This program creates a general framework for all EU environmental policies from now until 2020. The program is consistent with the current Europe 2020 strategy, which stresses the sustainable growth as one of its priorities and resource efficiency as one of its flagship initiatives.

Environmental policy is distinguished by a number of goals (adapting sustainable development as a Community strategy on long-term, environmental and health strategy), the adoption of horizontal and sectorial legislation in the environmental field, institutional actors involved in the preparation, definition and implementation of the environment policy (European Commission, DG environment, the Council of Environment Ministers, the European Parliament The Environment public health and consumer policy Committee, Committee of the regions, The European Environment Agency, The European Information and Observation Network for environment), principles of action (principle "polluter pays principle, preventive action principle, the precautionary principle of high environmental protection, integration and proximity), changing of the environmental policy based on consensus, and the transition from an approach based on the control to one based on prevention and operationalized by using economic and fiscal instruments.

The evolution of the environmental policy is reflected not only by its objectives and priorities, but also by the increased the number of its implementing instruments at which are added those aids which are represented by a series of programs (LIFE Programme and the Social Cohesion).

In Romania environmental protection has emerged as a self-contained domain of national policy in 1990 when it was first established a Ministry of Environment.

Environmental policy in our country has evolved from the adoption of minimal measures of environmental protection, which had in view the limiting of pollution, to shaping their causes, and to establish the roles and responsibilities for environmental damage.

In 1992, it was elaborated the first official document that sets the national targets for the protection and sustainable conservation of the environment, the National Strategy for Environmental Protection, updated in 1996 and 2002 in accordance with the relevant Community provisions. Divided into two parts, the National Strategy for Environment proceeds to a presentation of the main natural sources and elements regarding the economic state and the quality of the environmental factors as well as an overview of the main resources for environmental protection, priorities and objectives in the short, medium and long term.

Since 1996, it can be observed an adequacy of the national strategy with the community strategy regarding the principles, priorities and objectives in the field of environment.

The principles underlying environmental policy in our country are: the precautionary principle regarding the activities with impact on the environment; pollution prevention and environmental risks; conserving biodiversity, cultural and historical heritage; the polluter and user "pay" in the sense that they are required to make direct payments by those who pollute the environment and those who use the natural resources of the environment; stimulating the activities of environment recovery (through grants, loans, etc.).

Regarding the identified priorities, they reflect both national needs and trends and initiatives globally.

The national environment strategies from 1992 and 1996, represents the documents which was structured the national environmental policy until 1999, when it was adopted the National Programme for EU Accession. During the next period, the national strategy on environment was complemented by a series documents such as Report regarding the environment status in Romania; National Waste and dangerous subassemblies Management Plan.

Starting with 2000, when begin the accession negotiations of Romania to the EU, environmental policy in our country is developing according to the European Commission's strategy for candidate countries under Agenda 2000.

In order to align the national environmental policies and objectives to the Community standards, our country had to identify the priority areas of action, establish key objectives to be achieved by accession and the deadlines for adoption, transposition and implementation of the environmental acquis.

Development strategies of national environmental policy in the pre-accession were outlined by Romania's EU accession priorities and national needs, in conjunction with the community priorities. Community initiatives active in national environmental policy were the tools of pre-accession under the support programs: PHARE, which was the main instrument of financial and technical assistance, with a role in implementing the community environment acquis and leveraging the investment in environmental field; ISPA program, focused on financing infrastructure projects in the environmental field; The LIFE program, which finances projects aimed at the protection and preservation of environment and biodiversity.

Agenda 21 is a comprehensive strategy for UN action, which focuses on the community participation in the implementation of environmental policies, the increasing role of education in development of environmental knowledge and responsible use of natural resources. The strategy was implemented since 2000 in several local communities.

Romania as a member state of the European Union has opportunities for the implementation of environmental programs because the resource-environment ration, in the context of sustainable development, increasingly requires a reconsideration of natural resources management in terms of consequences on the citizens' work and life. In this context resource management, environmental tools and policies, the micro and macroeconomic effects of environmental protection means are matters subject to the National Development Plan, which has the overall objective to protect and improve the environment in accordance with economic and social needs of Romania, thereby significantly improving the quality of life by encouraging sustainable development. Also NDP through the specific objectives ensures improved living standards by providing public utilities in the water and waste quality and quantity required and improve the environment with particular compliance with relevant EU Directives.

In this context, Romania, based on NDP, elaborated Environmental SOP based on the principles, policies, practices and objectives at EU level. This SOP is designed that represents the foundation and, also, a catalyst for a more competitive economy, a better environment and a more balanced regional development. Through its global and specific objective Environment SOP lay the foundation for sustainable economic development. Moreover, it is closely related to other operational programs and considers compliance with the community acquis concerning the procedures for management of Community funds.

### **3. The importance of management in solving the environmental issues**

Environmental issues are part of the problems that are accumulated gradually, but in a relatively short time and then require a great time to be resolved.

In appreciation of environmental issues a basic rule is to balance the cost of applying a policy, with its likely positive results. Such an approach provides a basis for ordering the alternative possibilities of action. The positive results of a measure are equivalent to environmental damage if the measure or investment that would not have been implemented. This way of looking at things is certainly very different from the case in which we took into account the financial indicators or profitability, because both benefits and costs are defined in a broader sense; a thorough economic analysis also includes quantitative data and, where possible, an assessment of environmental and social factors and consider the costs and benefits of an investment or policy as a whole.

In the decision making process, it must first clearly defined the problem, because that will largely determine the way in which it will be implemented. This seems self-evident, but experience shows that often are provided solution for the environment protection without the fully evaluation of the problem and different options to solve it.

These considerations apply to situations in which ineffective investments in terms of environmental protection are proposed to solve social and political problems. Thus, it can be proposed costly investments in equipments to reduce emissions in the energy sector to continue using inferior coal, thus avoiding extreme dependence on energy resources and to not close mines that provide a significant number of jobs. Again, there may be much cheaper ways to provide the necessary electricity

without producing a serious atmospheric pollution and damage to electrical safety, especially where cost reductions can be more efficient economic targeted retraining miners.

As a result, policy makers need to seek ways of solving problems simultaneously and to avoid transferring the problem from one environment component to another. As some environmental problems are related to common causes (e.g., energy use or the use of ores) some measures (e.g. energy conservation and introduction of production processes more effective in metallurgy) will result in the simultaneous reduction of some inland pollution.

Measures taken to reduce emissions and also the water purification or installing dust collectors, often treat one problem of the environment; structural changes, such as using energy conversion, restructuring of the industrial processes or improving of the product quality, will act on several environmental problems simultaneously. A reduction in the use of coal, for example, will simultaneously reduce health risks caused by dust and sulfur dioxide, acidifying and water salinity, and the greenhouse effect. These are measures that need to be prioritized. The advantage of such structural measures is that they not only reduce harmful emission and resource needs (energy, raw materials), thus having a direct financial payback.

Another principle that can be used in prioritizing is that prevention is always cheaper than canceling or reducing the effects once they have occurred. For example, long-term soil pollution prevention is cheaper than cleaning contaminated soil, producing less waste and treating them more carefully. Improving the efficiency of mining and industry - and thus reducing the losses - and strictly applying the rules of waste management are therefore more urgent than a program for soil cleaning.

The above considerations certify the multitude of issues, the multitude of requirements, and the multitude of needs that manifests in the environmental protection field, which raises the question of priorities.

Prioritizing becomes at this stage, especially when environmental issues overlap with social, economic, reform, restructuring, etc., the cornerstone of the success of environmental policies and strategies.

A balance between the various considerations is not easy. It is an art, not a science, since the variety of factors that must be considered is high and the available data are often of poor quality. They are complementary and should be applied simultaneously.

To achieve an environmental strategy, every manager, state or private institution must meet current environmental problems in their relationships with economic development. [1]

In less developed countries, many markets work highly imperfect. Also, in addition to "formal" markets, there are many "informal" markets, that some authors define as adjusted exchange without contractual forms. In addition, the absence of monitoring and regulations "encourages" the activity with negative impact on the environment, which imposes new spending. [2]

The complexity and dynamics of the economic domain imposed economic decision-making under risk. In economic activity besides the high exploitation of resources "appear other types of risks, such as the change in market conditions, change that may lead to either a recession or expansion". The appearance probability of factors which either expansion or risk or normal behavior, variants directly influence the adoption decision.

In turn, management processes, the most dynamic of economic processes, have suffered several influences, priority manifesting in the dimensions of analysis and synthesis that are the basis of environmental knowledge, concepts and theories related to planning, organizing, training, coordination, control and evaluation of the economic activity in the context of environmental requirements based on quantifiable expression evaluation indicators.

Sustainable development is a relatively new concept applied to economic growth in order to take combine economic and ecological aspects to the planet.

Monitoring instruments were produced by many institutions, from economic organizations and civil society formations, groups of experts and research centers to local governments, national governments, intergovernmental organizations and international financial institutions. The scope of these efforts reflects the specialists/ company need to dispose of such instruments to cover a diverse array of applications and overcome a host of methodological difficulties. Differences, still notable, of how to design, stage of development and effective utilization of coherent sets of indicators illustrates the complexity of the task to find effective compatibility between the approaches of empirical and normative distinct domains of the concept of sustainable development: economy, society and natural

capital. In these circumstances, methodological aspects which are still in a theoretical consideration are taken up dynamically in the development of statistical reporting applications.

Developing of a set of widely accepted indicators of sustainable development, including the reflection in the system of national accounts by specific instruments, ecological factors and social determinants of development, remains a priority concern of the Statistical Office of the European Union (Eurostat), UN Economic Commission for Europe (UNECE) and the Organization for Economic Cooperation and Development (OECD). [7]

Romania, through the National Statistics Institute is actively engaged in this process. At this stage, the National Statistics Institute sends to Eurostat a partial system of indicators, integrated into the European system of sustainable development, according to available data. At this stage, data sources can be improved through a direct and effective inter-institutional cooperation, in particular to quantifying the human and social capital and the capacity of natural ecosystems. The current system used to monitor implementation of the Sustainable Development renewed/ revised Strategy of the European Union explicitly recognizes the existence of these problems and recommends to the Member States to continue to revise their respective sets of indicators, to ensure their quality level comparability and relevance to the objectives of the EU Strategy. [5]

Thus, through the revision at short intervals of National Strategies and the EU Strategy it is reduced the margin of error in assessing the needed resources to implement the agreed targets.

In order to monitor and verify the implementation of National Strategies it will create and maintain a national system of statistical indicators of sustainable development, harmonized and congruent with the relevant system of indicators used at EU level, to monitor national progress in relation to the Sustainable Development Strategy of the European Union.

Collecting and processing correct /actual information, quantified and regularly updated, aggregated at the level of sustainable development indicators, will allow to measure progress towards the goals set by the Strategy and accurate reporting on the results.

Regarding the *National Strategy for Sustainable Development of Romania*, seeks to operationalize the two types of indicators: National Indicators of sustainable development - focused on the key priorities expressed by measurable targets in order to compare the national performance with the international partners and objectives of the EU Sustainable Development Strategy. This set of indicators will be based on working group results Eurostat-UNECE-OECD and will be continually updated and *Progress Indicators of the National Strategy* - covering the full range of policies that are generated, including those not covered EU strategy. In this way, all policies will be subject to monitoring, enabling political decision-makers and the public to evaluate the success of actions taken. All activities related to the development of the national system of sustainable development indicators will be conducted under the guidance and control of an Interagency Committee for Sustainable Development. [3]

#### 4. Conclusions

For Romania as a Member State of the European Union, sustainable development is not one of the possible options, but the only rational prospect for national development, having as a result the establishment of a new development paradigm at the confluence of economic, social and environment.

Sustainable development and a high level of environmental protection promotion have been included as an important goal in the European Treaty. EU institutions are now obliged to take into account the environmental considerations in all policies they promote. The range of available environmental instruments has diversified with the development of environmental policy.

A number of researchers of the European Institute of Romania analyzed the environmental issues, concluding that "environment is a responsibility that should we assume in common. On the background of advanced environmental damage from the past decade, the degree of involvement and responsibility of international actors has increased. The concern for the environment has emerged on the European agenda in the early 1970s. Environmental policy of the European Union (EU) was created by the European Community Treaty and aims to ensure sustainable environmental protection measures. Through Treaty of Maastricht, environmental protection becomes a key priority of the European Union, where it is reported the need for integration and implementation of environmental policy in sectorial policies such as agriculture, energy, industry, transport. The main pillar of

environmental policy is the concept of sustainable development, which is a transversal policy encompassing all other Community policies, highlighting the need to integrate environmental protection requirements in the definition and implementation of all European policies ".[6]

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