

ASPECTS OF ENVIRONMENTAL PROTECTION IN ROMANIA IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

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Abstract

Sustainable development is, according to the World Commission on Environment and Development (WCED): "development that seeks to meet the needs of the present without compromising the ability of future generations to meet their own needs".

The sustainable development of any society must necessarily be based on three pillars, namely ensuring a sustainable environment, social equity and economic prosperity. These areas of concern, together with the corresponding responsibilities, are interlinked and require attitudes that embrace them, whether it is a citizen, a public institution or a company. According to constitutional provisions, the state through specialised public authorities must ensure citizens the right to a healthy environment. Sustainable development programmes focus precisely on the protection of the environment and resources.

Romania is committed to implementing the Sustainable Development Goals at national level and has revised its National Sustainable Development Strategy to integrate Sustainable Development Goals.

Environmental protection is an essential element of sustainable economic development and a condition for long-term political and social stability.

The objectives underpinning the construction of the European Union's environmental policy have been laid down in the European Community Treaty, Art. 174. Thus, it states that the objectives of European environmental policy are the following:

1. To preserve, protect and improve the quality of the environment.
2. Protection of human health.
3. Prudent and rational use of human resources.
4. Promoting measures at national level to address regional environmental and other problems.

The European Union's environmental policy, established by the EC Treaty, aims to ensure the sustainability of environmental protection activity by developing preventive measures and respecting the "polluter pays" principle, and is a horizontal policy. Horizontal legislation includes regulations ensuring transparency and circulation of information, public access to information, facilitating the decision-making process, but also boosting the strategic environmental assessment process.

The Environmental Management System (EMS) is a mechanism that addresses major environmental issues by allocating resources, assigning responsibilities, and continuously evaluating practices, procedures and processes, which are organised in a systematic way.

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The Environmental Management System is a mechanism that allows the development of the Environmental Management Programme that guides the actions necessary to achieve the targets set by the Environmental Policy.

Current environmental protection measures have been oriented towards environmental management, which uses a broad combination of coercive and incentive measures to achieve sustainable improvements.

Key-words: *sustainable development, ISO standards, environmental protection, environmental management (EMS), environmental policy*

INTRODUCTION

Environmental management aims to use natural, economic and human resources responsibly so that the environment is protected and improved.

The environmental management system is a component of the overall management system that includes the organisational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, carrying out, reviewing and maintaining environmental policy.

An environmental management system is a management tool to ensure the functionality and continued application of an environmental management plan or procedures and in compliance with environmental objectives and targets. Thus, an environmental management system (EMS) is a structure, an overall framework, into which the activities of organisations can be integrated in order to identify, measure, manage and effectively control the risks or impacts of these activities on the environment. The EMS also sets out how to improve environmental performance and shift the focus towards continuity or sustainability through the good practice rules set out in ISO 14001.

Environmental Management Standards (such as EMAS and the ISO 14000 series of standards) is a benchmark against which organisations and companies can measure their performance. At the same time, public opinion has become increasingly concerned about environmental issues and this is often

reflected in consumer behaviour, with consumers expressing an interest in environmentally friendly products. This has led to the emergence of the eco-label, which provides information on the environmental impact of the product and promotes low-impact products.

Sustainable development means maintaining the possibilities and conditions of life for future generations, maintaining renewable natural resources at least at the level of those available to the present generation, and restoring environmental factors affected by pollution.

MATERIAL AND METHOD

The research methodology used includes qualitative methods (meta-analysis of specialized literature) and observations and logical deductions on the impact of environmental policies.

Key concepts covered: environmental management, environmental management system, environmental management standards, eco-label, sustainable economic development, sustainable development, EMAS - European Commission Eco-Management and Audit Scheme, environmental quality improvement, ISO 14001 environmental management systems;

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After EMAS (European Commission Eco-Management and Audit Scheme - a voluntary scheme for industry introduced by the European Commission and aimed at promoting continuous improvements in the environmental performance of companies and providing environmental information to the public) was published, the international standard for environmental management systems ISO 14001 was introduced which has been adopted all over the world and is recognised as a logical and well-structured environmental management system standard.

The ISO 14000 series of standards was developed by the International Organization for Standardization to establish the primary requirements for Environmental Management Systems. ISO shares a common background with EMAS and is widely accepted - especially in the European Union - as an indicator of sound environmental management practices. All the requirements of ISO 14001 are expected to be incorporated into any EMS.

The first step toward meeting the Environmental Management Standards is the introduction of an Environmental Management System (EMS), which includes the organisational structure, responsibilities, practices, procedures, processes and resources for determining and implementing environmental policy. Implementing an EMS is a complex process that extends beyond these general guidelines and has specific requirements to be adopted by the company or organisation.

ISO 14001 contains specific management system requirements that enable an organisation to establish an environmental policy appropriate to it; identify environmental aspects of past, existing or planned activities, products or services; determine significant environmental impacts; identify relevant legislation and regulatory requirements; identify priorities and set appropriate objectives and targets; set standards and programmes for policy implementation and achievement of objectives and targets. A

company complies with legal environmental requirements if it complies with all laws and regulations relevant to the company.

RESULTS AND DISCUSSION

Environmental problems have unknowingly come to affect all of humanity. That is why one of the major challenges of our time is to effectively counteract the damage done so far, but above all to prevent the possibility of future damage to nature.

Effective management of environmental issues takes place in an increasingly complex environment (legislative, economic, human), where the expectations of customers and the general public are many and varied: environmentally friendly products/services with low risk of contamination, minimal investment with high returns on pollution. Environmental Management Standards represent a performance ideal that the company strives to achieve.

The Environmental Management System is a mechanism that allows the development of the Environmental Management Programme that guides the actions necessary to achieve the targets set by the Environmental Policy.

The standard sets out the requirements for an EMS that enables an organisation to formulate its environmental policy and objectives, taking into account the legislative framework and the environmental aspects of the activities it carries out.

Applied ecology, with its various meanings, can provide guidance for human development so that development ensures the protection, conservation and enhancement of the living environment otherwise, it is meaningless.

Development not anchored in an ecological context is doomed to failure. The environment and its quality must be the ultimate goal of development. We can therefore see that the role of management science and environmental science in the process of sustainable development is fundamental. This role can take the form of

predetermining the way forward for society and the economy.

It is thus considered that the current transition in Romania is oriented towards a sustainable society with the following *history*:

The year 1992 marks the implementation of the National Strategy for Environmental Protection, which was updated in 1996 and 2002. The strategy consists of two parts and presents natural resources, elements of the economic state, quality of environmental factors, environmental protection principles, priorities and objectives (short-term until 2005, medium-term until 2010 and long-term until 2013).

In 1995 Romania adopted the Environmental Protection Law no. 137 of 12/29/1995. Article 3 of the Environmental Law establishes the basic principles of sustainable development: the precautionary principle in decision-making, the principle of preventing environmental risks and damage, the creation of a framework for the participation of non-governmental organisations and the population in the development and implementation of decisions or issues related to the development of international cooperation to ensure environmental quality.

National Waste Management Strategy, adopted in 2002 following the transposition of European legislation - Waste Framework Directive no. 75/442/EEC in Romania by the introduction of Emergency Ordinance 78/2000 on the waste regime approved by Law 426/2001, amended and supplemented by Emergency Ordinance 61/2006 approved by Law 27/2007 and Government Decision 856/2002 on waste management records and approval of the waste list.

The strategy is drawn up for the period 2003-2013, is approved by Government Decision and is reviewed periodically. *The principles are*: the principle of protection of primary resources, the principle of preliminary measures, the principle of prevention, the “polluter pays” principle, the substitution principle, the principle of proximity, the principle of subsidiarity and

the principle of integration, and the overall objective of the Strategy is the development of an economically and environmentally efficient integrated waste management system. Waste is also formally classified into municipal and similar waste (generated from households, institutions, commercial and service providers, street waste collected from public spaces, streets, parks, green spaces, construction and demolition waste, sludge from municipal wastewater treatment); production waste (generated from industrial activities) and waste generated from medical activities (generated in hospitals, polyclinics, medical practices).

Based on the National Waste Management Strategy, the National Waste Management Plan was created, which includes the actions taken to achieve the objectives of the Strategy, how they will be carried out, deadlines and responsibilities. Thus, there are waste management plans at regional and county level, drawn up by the Regional and Local Environmental Protection Agencies, which are reviewed every five years, and their purpose is to create the necessary framework for achieving waste management objectives.

The National Climate Change Strategy (NCCS), approved by Government Decision 645 of 7 July 2005, has the overall objective of ensuring the fulfilment of Romania's international commitments and obligations and also the development and implementation of targets on adaptation to the impact of climate change, the reduction of greenhouse gas emissions by the Romanian economy and the use of the mechanisms provided for in the Kyoto Protocol.

The National Action Plan on Climate Change (NAPCC), approved by Government Decision no. 1877 of 22 December 2005, contains concrete measures for the implementation of the National Climate Change Strategy.

The Natura 2000 network is a network of protected natural areas at European level, which benefit from measures and management plans that allow their long-term

maintenance. It was created at the initiative of the European Union in 1992 and is based on two directives: Habitat Directive 92/43/CEE and Birds Directive 79/409/CEE.

Romania has transposed these directives through Emergency Ordinance no. 57 of 20 June 2007 on the regime of protected natural areas, conservation of natural habitats, wild flora and fauna, which guarantees at Article 1 the conservation and sustainable use of natural heritage.

Article 3 of the Habitat Directive establishes the European network of conservation areas known as Natura 2000 with the aim of protecting areas hosting natural habitats.

Article 1 of the Birds Directive states that it covers all species of birds naturally occurring in the wild within the territory of the Member States and applies to birds, their nests and habitats and that the objective of the Directive is to protect, manage and regulate those species and their exploitation.

Protected areas are of two kinds: Special Areas of Conservation (SAC - Special Areas of Conservation) and Special Protection Areas (SPA).

Romania has a total of 273 SACs and 108 designated SPAs, representing 17.84% of the country's territory. Romania also has 5 of the 9 biogeographical regions: alpine, continental, pannonian, steppe and pontic.

In 2008 Romania adopted the National Strategy for Sustainable Development in order to align our country with the new sustainable development philosophy of the European Union. The National Strategy set short, medium and long-term strategic objectives:

- **Horizon 2013:** Organic incorporation of sustainable development principles and practices into all public programmes and policies of Romania as an EU member state.

- **Horizon 2020:** Reaching the current average level of the European Union countries on the main sustainable development indicators.

- **Horizon 2030:** Romania to come significantly closer to the average level of EU member countries in that year in terms of sustainable development indicators.

Institutional framework

The main institutional actors of environmental policy in Romania are: the Ministry of Environment and Forests, the Ministry of European Affairs, the Romanian Parliament, the Ministry of Agriculture and Rural Development and the Ministry of Health.

The Ministry of Environment and Forests is a specialised institution dealing with the management of environmental issues. This specialised body is subordinate to the Romanian Government and is responsible for implementing specific policies in the field of environmental protection and forests. It is responsible for initiating national environmental strategies and creating the framework for their implementation and is made up of several directorates dealing with water management, pollution control, biodiversity, waste management, forests and forestry development, etc. The Danube Delta Biosphere Reserve Administration also comes under the Government. The Ministry of European Affairs and the Romanian Parliament are also two governmental and legislative institutions that coordinate, elaborate and correct decisions on the development and implementation of local policies in line with European ones. Another important institution is the Ministry of Agriculture and Rural Development, which, in collaboration with the Ministry of Environment and Forests, supervises the proper implementation of environmental programmes concerning the application of fertilisers and pesticides, as well as the protection of forests. The National Environmental Guard exercises its authority in the field of environmental protection and its main tasks are to control activities that have an impact on the environment, enforce fines, check complaints about violations of the legislation in force and monitor compliance.

In addition to the institutions at national level, there are several local authorities involved in environmental protection. One such example is the town halls, which are directly responsible for planning, managing and protecting green spaces. At national level, we should also mention other organisations such as non-governmental organisations and environmental protection foundations which make an important contribution to the implementation of national environmental policy, as well as establishing a clear civil society dialogue with government authorities, focusing on specific, one-off issues where local authorities have failed to put them on the agenda. They also have an important role to play in the development and implementation of national environmental policy. Corroborating all these aspects, it should be stressed that the Romanian institutional arrangement for environmental protection has undergone numerous changes and transfers of new competences in recent years, but what is important to note is that the degree of involvement and awareness of the need for environmental control and protection in Romania on the part of the competent institutions has increased considerably.

It has become very aware that the environment, which is an essential integral part of any development process, encompasses the links and interdependencies between people and natural resources. Thus, changes in the environment are not only caused by natural events, but also by the practical manifestation of development patterns, practices and lifestyles. At the same time, any change in the physical environment has important socio-economic consequences that influence the quality of life. The effects of environmental pollution manifested in the emergence of serious health problems and disruption of the ecological balance, recognised internationally by the Stockholm Conference, have led to the emergence of a broad 'environmental movement' in both developed and developing countries. This

response has included active participation from both the public and private sectors.

The main feature of this environmental movement was that it generated a new perspective for the evolution of attitudes and knowledge in this field. As part of a worldwide evolutionary process, marked by the Rio and Johannesburg Conferences, several key issues have been recognised for structuring and guiding environmental management instruments. Thus:

- many of the impacts of human activities on the environment are global and regional in scope, while others are confined to specific geographical areas, requiring solutions and measures at all levels. A prominent example is the production and consumption of chlorofluorocarbons, mainly located in developed countries, resulting in the depletion of the ozone layer, which protects the world's inhabitants and ecosystems from solar ultraviolet radiation.

- the environmental problems of the 1980s became important mainly because of their economic and social implications. The most telling example is greenhouse gas emissions. These emissions generate climate change, the manifestations of which have a potentially damaging influence on the planet's ecosystems and human systems. With rising temperatures, certain areas of the globe may face: reduced water supply; increased soil erosion; flooding and consequently reduced possibilities for food production.

- research has produced new evidence of the severity of the crisis facing the environment. For example, the removal of natural habitats such as wetlands and deforestation of rainforests is leading to an unprecedented rate of extinction of wildlife species and the removal of carbon sinks.

- international environmental debates have led to general agreement on the following major elements:

- the environment is a common concern of industrialised and developing countries;

- the problems of rich and developing countries are different;
- the answer to global environmental problems can only be found through international cooperation and by integrating economic and social development with environmental protection in line with the sustainable development approach.

*The evolution of environmental protection measures over the last 40 years has been based on the **philosophy of pollution control**. A wide range of pollution control technologies has been developed and it is now technically possible to greatly reduce or eliminate discharges of important pollutants. However, in developed countries, this approach leads to decreasing benefits per unit of expenditure and in many developing countries the minimum conditions for implementing pollution control measures do not exist. There is also a fear in some countries that pollution control measures are an expensive luxury that will divert resources from more productive use. As a result, **the current focus has shifted towards environmental management, which uses a broad combination of coercive and incentive measures to achieve sustainable improvements** and that assumes the following:*

- defining environmental policies in terms of their objectives;
- explicit consideration and mention of priorities;
- greater decentralisation, particularly in terms of policy implementation;
- promoting better performance and management methods instead of simple emission control measures;
- adoption of cost-effective strategies instead of specific pollution control measures.

Society has identified valid reasons to answer the question "why the environment needs to be protected". The most **common classification of environmental management tools** divides them into:

- command and control measures, which include laws, permitting systems, registration and certification systems that regulate and enforce activities that protect the environment;

- economic incentives, which seek to correct specific market system failures.

Environmental laws have been rapidly adopted in many countries. Unfortunately, implementation has often not been possible, either because of over-ambitious or unrealistic legislation or because of poor implementation and lack of institutional support. Moreover, some environmental laws have failed because they were inappropriate to the economic realities of the country or region or because they did not take into account the institutional capacities of the society that was to implement them.

Economic incentives have some very useful advantages for environmental management:

- in certain circumstances, economic incentives can be structured to result in greater pollution reduction than traditional command-and-control measures;
- they often allow pollution control to be achieved at a lower cost than traditional command and control measures;
- unlike traditional command and control measures, they allow better control of pollution from a multitude of small and dispersed sources of pollution;
- can enhance technology improvement and innovation.

The concept of sustainable development of states, elevated to a fundamental principle in most national environmental laws and even in the constitution, calls for the integration of environmental considerations into all areas of economic and social activity. To this end, a state must have a national authority responsible for drawing up environmental policy, supported by local authorities responsible for implementing environmental policy. These authorities must monitor the effects of pollution on air, water and land and on the population and be empowered to take the necessary decisions to reduce pollution and protect the environment. In order to be able to act, they must have a policy and legislative framework and mechanisms and procedures in place to enable them to enforce the applicable standards as required by the regulations.

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1. Environmental management is the method of organising human activities that affect the environment in order to maximise social well-being and to prevent and minimise possible environmental impacts by addressing the causes of environmental damage. Environmental problems cannot be viewed in isolation, but must be addressed together with development issues, taking into account the essential importance of maintaining an appropriate balance between economic development, population growth, rational use of natural resources, environmental protection and conservation.

2. The discrepancy between the large volume of regulations adopted at a rapid pace and the small number of concrete environmental management and enforcement measures has led to major implementation difficulties. The institutional element requires:

- the existence of people capable of designing environmental policies and regulations and of technical specialists to help reduce environmental damage and monitor environmental performance;

- the existence of environmental authorities at national, regional and local levels within government structures, which have the power conferred by law to enforce environmental regulations and make decisions at different levels;

- the existence of efficient laboratories providing reliable results;

- the existence of adequate equipment, infrastructure and economic resources to carry out monitoring, assessment and field research.

3. Economic incentives are means-based instruments designed to motivate polluters to reduce the risks to health and the environment posed by their activities, processes or products. These incentives provide monetary and other rewards for pollution abatement measures, thereby fuelling the motivation of polluters to change their behaviour.

4. The key to successful international action for environmental protection could be wider participation of the global community, cooperation on technical issues and the functional application of financing mechanisms to support developing countries. Similarly, the key to the success of measures at local level depends on the wider participation of citizens, in particular the involvement of non-governmental organisations, to support local initiatives to protect the environment.

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