

# THE EUROPEAN APPROACH TO THE ENVIRONMENTAL MANAGEMENT SYSTEM

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**Abstract**—The environment and its protection are at present of general concern. In order to support all the action to be taken in this field a deep involvement of the people worldwide is required, especially that of various companies from all the industries. There are lots of means to support this initiative, ranging from the use of own methods implemented by internal procedures to the reward granted to eco conscious organizations, or the introduction of new environmental management systems. The creation of environmental management systems provides recognition among business partners, competitors, communities or employees. At the same time, specific instruments have been created at European and international level to analyze and manage the environmental performance.

**Keywords**—sustainable development, environmental policy, environmental management system, environmental audit

## I. INTRODUCTION

NOWADAYS the environment and its protection has become a global issue due to its features, its implications into all levels of human activity and the importance paid to its coherent management. All aspects of the environment emerge from the awareness risen in both individuals and companies of the difficulties brought about by all human activities by a chaotic development that affect the nature.

## II. SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL MANAGEMENT

The evolution of human society, dramatic over the last century, has determined a development of various economic concepts, methods and instruments and also ways to implement them, thus facilitating the development of managerial sciences. The ever greater current interest in environmental protection has also influenced the economic concepts which brought about the advent and development of eco-economy and a focus on the managerial sciences on ecology.

The awareness of the pressure that the evolution of human society is exercising on the environmental components has led to the identification and

implementation of environmental protection solutions in terms of legislation, institutions, economy, technology, management, etc. Rojanschi, Bran, Grigore [1] consider that the first attempt to formalize this global environmental awareness and the need to set common principles to ecologically manage these issues was accomplished by the Declaration of the United Nations on the Human Environment signed in Stockholm (1972). Since then, the concern for environmental protection had increased constantly until 1987 when the Brundtland Report defined the concept of sustainable development as a reference point for all the economic development strategies of the countries worldwide.

By overlapping the improvement of the managerial concepts and instruments on the one hand, and the awareness of the environmental problems and the orientation of society towards sustainable development, on the other hand, the environmental management has emerged, as a scientific, managerial branch. The purpose of the development and implementation of environmental management is closely related to a sustainable environmental approach implemented in all the company activities.

## III. ENVIRONMENTAL POLICY

The planning function of the environmental management influences the environmental policy, as it is the element that drives the entire environmental management system. The environmental policy is implemented both at the macroeconomic and microeconomic level, in different organizations.

Rojanschi, Bran, Grigore [2] consider that The European environmental policy relies on the following principles:

- 1) *prevention*
- 2) *precaution*
- 3) *rectifying pollution at source*
- 4) *„polluter pays” principle.*

These principles are integrated into the multiannual Environmental Action Plans and the European Union horizontal strategies but what is essential is their implementation in organizations.

Ohlinger [3] considers that environmental policy is thought to be beneficial in case it meets the following requirements:

- 1) it is adapted to the size and characteristics of the activities performed;
- 2) it relies on a commitment to prevent the negative impact on the environment and to permanently improve the implementation of the environmental protection principles as regulated by the current legislation;
- 3) it involves all the persons who take part in the activities performed;
- 4) it must be clearly defined so that all the involved parties could understand and implement it adequately;
- 5) it is accessible to the public.

There are some important aspects to be considered when establishing an environmental policy within organizations:

- 1) environmental aspects related to the activities or products/services provided by an organization, which are highly influential and can be controlled by that organization; these aspects shall result from an initial environmental study;
- 2) a deep knowledge of the current environmental legislation;
- 3) clearly defining the environmental objectives as resulted from a preliminary analysis; the environmental objectives must rely on targets that are quantifiable through various indicators and must be established for well-determined intervals;
- 4) precising the estimated deadlines to achieve these objectives;
- 5) establishing responsibilities for every stage and defined indicators.

#### IV. ENVIRONMENTAL MANAGEMENT SYSTEM

Ianculescu, Nisipeanu, Stepa [4] consider that "The Environmental Management System" is an instrument used by organizations to evaluate their environmental performances, establishing time intervals and comparing the results against the established indicators so that corrections could be made appropriately. This system is a voluntary act committed to by companies and institutions in order to permanently plan, evaluate, analyze and improve the effect of their activities on the environment, as well as to quantify their performances and environmental objectives.

Rojanschi, Bran, Grigore [5] consider that any environmental management system relies on such supporting elements as work procedures, managerial instruments, and practices, human and financial resources. Some of the macroeconomic elements have been used to define procedures and standards regulated at European level by EMAS and ISO 14001. Several stages are involved in the implementation of any environmental management system, as shown in Fig. 1.

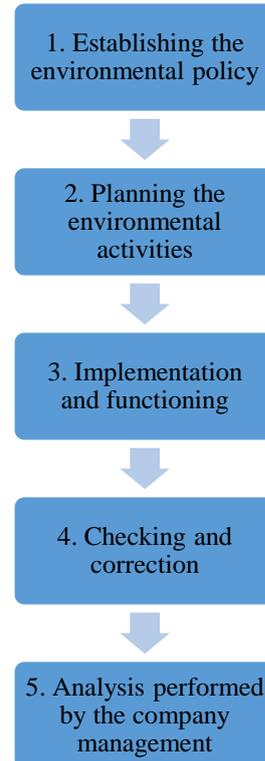


Fig. 1. The Stage for Environmental Management System Implementation

#### V. THE EUROPEAN ECO-MANAGEMENT AND AUDIT SCHEME (EMAS)

From a macroeconomic perspective, the first environmental references in the European Union documents were made in 1972 on the occasion of the Paris Summit which emphasized the need for an environmental community policy resulting from a dramatic economic development. However, it was the Single European Act of 1987 that first mentioned the term *environment* and set the common legal community regulations corresponding to this field. The first objectives of the European environmental policy were defined by the same document:

- 1) *protecting the human health;*
- 2) *preserving the quality of the environment;*
- 3) *rational use of the natural resources.*

Further amendments have strengthened the interest of the European Union in the environmental protection. Thus, the Treaty of Maastricht (1993) established the environment as a priority political issue of the European Union, which also plays a co-decision role. In 1999 the Treaty of Amsterdam stipulated the obligation to include the environmental protection in the policies of all EU sectors and to promote sustainable development. The Treaty of Lisbon (2009) added new amendments regarding the prevention of climate changes and the sustainable development of specific objectives of the UE in relation to the member states.

All these European trends and provisions have also generated at company level the development of systems that support the overall environmental protection

principles and the implementation of sustainable development at the organizational level. Thus, the Environmental Management System (EMS) emerged from the need to integrate the environment into the company general management. It is also a consequence of the awareness that an efficient pollution control does not require only technological solutions but also a systemic approach to all environmental aspects.

The Eco-Management and Audit Scheme (EMAS) instrument of environmental performance [6] specify that the Eco-Management and Audit Scheme (EMAS) was adopted by the Resolution no.1836/1993 of the European Council which regulates the voluntary adoption by the manufacturing companies of an environmental management and audit system. After adopting an environmental management system, companies must comply with its provisions. The CE Regulation no.761/2001 established EMAS II which is accessible to all companies that develop a state or private economic activities. The Regulation (EC) no.1221/2009 of the European Parliament and of the Council on the voluntary participation by organizations in a Community Eco-Management and Audit Scheme brought about one last amendment which defined EMAS III. This amendment extends the application of provisions to all organisations that develop activities with impact on the environment, be they inside or outside the Community. Also, this last regulation stresses the obligation to provide an environmental report based on the main indicators used to evaluate the environmental performance.

The Romanian legislation that enforces EMAS relies on the Governmental Decision no.57/26.01.2011 regarding the establishment of measures to enforce the provisions of Regulation (EC) no.1221/2009 of the European Parliament and of the Council of November 25th 2009 on the voluntary participation by organisations in a Community Eco-Management and Audit Scheme and to revoke the Regulation (CE) no.761/2001 and the Commission Resolutions no.2001/681/CE and 2006/193/CE. This legislation is also the cornerstone for all additional law enforcement provisions stipulated by governmental decision.

The declared purpose of EMAS is to permanently improve the European environmental performance by the development and implementation of an environmental management system at European level, the audit of the environmental performances and dissemination of the information on environmental performance to the interested public.

The organizations that are willing to implement an environmental management system find themselves in a dilemma: what to choose between EMAS and ISO 14001? In this matter, the important thing is that the European Commission acknowledged that the ISO (International Organization for Standardization) standards are basic elements in defining EMAS; in other words, the ISO 14001:2004 standards are part of EMAS III (Annex II). However, EMAS also stipulates additional aspects that stress the importance to comply with the standards:

- 1) *environmental performance and the need to permanently improve it;*
- 2) *extending external communication by making public the environmental statements;*
- 3) *performing a preliminary study of the environmental impact of the activities developed;*
- 4) *complying with the national and European environmental protection legislation;*
- 5) *involving the company staff in environmental management systems.*

For the Romanian organizations, especially those who have entered partnerships with other Community organizations, the EMAS system appears more appealing as it is a recognized instrument at European level. Based on their organizational objectives, they can also resort to ISO 14001 which is by far the most famous such instrument.

For any type of organization EMAS represents a managerial instrument whose implementation determines:

- 1) *optimization of the processes and activities developed;*
- 2) *reduction of their impact on the environment;*
- 3) *efficient use of the available resources;*
- 4) *reduction in the costs resulting directly or indirectly from the activities developed by systemic and pro-active implementation;*
- 5) *boosting the confidence of the customers, public institutions, local community and employees in the organization;*
- 6) *easier implementation of a quality management system;*
- 7) *providing a positive public image;*
- 8) *maintaining an advantage in the European market competition;*
- 9) *active involvement in reducing the pollution and protecting the environment.*

The Romanian institution responsible for the management and consulting provided to the organizations registered with EMAS is the Ministry of the Environment, Waters, and Forests through its subordinate EMAS Committee. Within the National Environmental Protection Agency (NEPA), which reports to the Ministry of the Environment, Waters and Forests, there is the EMAS Office which is in charge of technical paperwork of the EMAS Committee and manages the EMAS National Register. The competent institution that provides accreditation to the environmental verifiers and supervises their activities is the Romanian Accreditation Association (RENAR) which operates following its own accreditation procedures.

Order no. 2086 of 17 August 2011 of the Minister of Environment and Forests [7] specify that in order to be registered in EMAS are necessary a few steps are required. If there are no difficulties: faults in the documents, exceeded terms, etc., the registering process can be found in TABLE I.

The organizations registered with EMAS finally obtain a „Certificate” which has a validity of 3 years from registration. In the case of small and medium-sized organizations, the validity can be extended to 4 years on

condition they comply with the requirements of the EMAS III Regulation. An essential aspect is that no fee is charged for the EMAS registration, registration renewal, suspension or deletion.

TABLE I  
THE ENTIRE REGISTRATION PROCESS

Nr.	Author	Receiver	Document/Process
1.	Organisation	RENAR	Environmental statement
2.	RENAR	Organisation	Validation of the Environmental Statement
3.	Organisation	EMAS Office	Registration request in EMAS
4.	EMAS Office	Competent institution	EMAS registration request information
5.	EMAS Office	Preliminary analysis of documents	
6.	EMAS Office	Organisation	Information on the commencement of the EMAS registration
		Competent institution	Preliminary analysis result
		NEPA	Posting on website of EMAS registration request
7.	Competent institution	RENAR	Report supervising the environmental verifier
8.	Competent institution and EMAS Committee	Detailed analysis of documents	
9.	EMAS Committee	Competent institution	Notice to grant EMAS registration
10.	Competent institution	Syndicate decision to grant EMAS registration	
11.	Competent institution	EMAS Office	Decision granting EMAS registration
12.	EMAS Office	assign a registration number and includes the organization in EMAS National Register	
13.	Competent institution	EMAS registration certificate issue	
14.	EMAS Office	Organisation	Information about the registration in EMAS National Register
15.	Organisation	EMAS Office	Providing information about the mode of publication Environmental Declaration

## VI. CONCLUSION

In the context of worldwide consumption and sustainable development, the European legislation has increasingly focused on the environmental impact of the activities performed by any type of organization.

EMAS is a model that supports organizations to achieve better environmental performance. This instrument can be implemented in any organization whose activity affects the environment. The implementation of this system results basically in the optimization of the manufacturing processes, the reduction of the environmental impact exercised by various activities, as well as the efficient use of the organization resources.

Therefore, it is highly important to encourage organizations to register with EMAS, owing to the numerous benefits it brings to all the stakeholders: organizations, partners, competitors, public institutions, communities, and even individuals. This process must rely on comprehensive knowledge in this field and the awareness of the medium and long-run benefits it generates. Last but not least, the governmental bodies must find solutions to facilitate access to certification by reducing bureaucracy and corresponding charges or granting facilities (fiscal facilities included).

## REFERENCES

- [1] V. Rojanschi, F. Bran, Fl. Grigore, “Elements of the economy and environmental management (Elemente de economia și managementul mediului)”, Ph.D. Economica, Bucuresti, Romania, 2004, pp. 13 – 16.
- [2] V. Rojanschi, F. Bran, Fl. Grigore, “Elements of the economy and environmental management (Elemente de economia și managementul mediului)”, PhD Economica, Bucuresti, Romania, 2004, pp. 125 – 126.
- [3] T. Ohlinger, “Environment policy: general principles and the basic (Politica de mediu: principii generale și cadrul de bază)”, [http://www.europarl.europa.eu/atyourservice/ro/displayFtu.html?tuId=FTU\\_5.4.1.html](http://www.europarl.europa.eu/atyourservice/ro/displayFtu.html?tuId=FTU_5.4.1.html), accessed on october 2016.
- [4] S. Ianculescu, S. Nisipeanu, R. Stepa, “Environmental management in accordance with the series ISO 14000 (Managementul mediului în conformitate cu seria ISO 14000)”, PhD Matrix Rom, Bucuresti, Romania, 2002, pp. 20 -22.
- [5] V. Rojanschi, F. Bran, Fl. Grigore, “Elements of economy and environmental management (Elemente de economia și managementul mediului)”, PhD Economica, Bucuresti, Romania, 2004, pp. 394 – 408.
- [6] “The Eco-Management and Audit Scheme (EMAS) instrument of environmental performance (Sistemul comunitar de management de mediu și audit (EMAS) instrument al performanței de mediu)”, <http://www.anpm.ro/ro/emas>, accessed on october r 2016.
- [7] “Order no. 2086 from 17 August 2011 of the Minister of Environment and Forests for approval of the Registration procedure in the Community Eco-Management and Audit – EMAS (Ordin nr. 2086 din 17 august 2011 al ministrului mediului și pădurilor pentru aprobarea Procedurii de înregistrare în sistemul comunitar de management de mediu și audit – EMAS)”, [http://www.mmediu.ro/app/webroot/uploads/files/2015-07-01\\_OM%20nr.%202086\\_17082011proceduraemas.pdf](http://www.mmediu.ro/app/webroot/uploads/files/2015-07-01_OM%20nr.%202086_17082011proceduraemas.pdf), accessed on november 2016.