

The Importance of the Implementation of a Standard for the Environment within the Small Business from the Danubian Riveran Countries

Senior Lecturer Irina Todos, PhD
„B.P.Hasdeu” State University, Cahul, Republic of Moldova
todosirina@gmail.com

Abstract: In the current economic context, marked by globalization, the concerns regarding the environment protection and the **multiplication** of harmful effects of the industrial development upon the environment have become particularly urgent. In this period of time the requirements of the society regarding the environment protection and also the ecological criteria for the distribution of goods and services on the market are increasing. In order to favor, this process, at a macroeconomic level, systems of promotion of ecological products by ecological marking have been introduced. From the other point of view, national, regional and international models of environment management are being elaborated, which are meant to keep under control all aspects of environment of the economic agents.

Keywords: systems of ecological marking of products and packing; ecological label; management system of the environment

Water, air, flora and fauna are vital elements for the human existence. The concern for the environment and the planet's wealth was pointed out from ancient times. Thus in 242 BC, in India by a king's law it was ordered the protection of fish, terrestrial and forest animals. Later, from the XIIIth century, we can identify a number of laws referring to environment: „the edict concerning the fumes emitted in the atmosphere”, „the prohibition of throwing garbage in waters of ports or zones limiting, neighboring these ones”, „the protection of woods”, „the elaboration of the forestry law” etc.

During the period of 1950-1970 an ecological awareness begins to crystallize at international level [1, p. 191-192]. The majority of industrialized countries adopt adequate regulations regarding the environment protection. More specialized studies make their appearance: „Limits of Growth”, „Humanity at a Crossroads” „Let's Escape from the Epoch of Wastage”, „Catastrophe or a new Society”, works that emphasize the factors of development, stages of development, development

based on a rational exploitation of natural resources, recycling, as well as the society reorganization and the increase of compatibility of man with environment.

At the global level, it can be noted an increase of concerns for the environment by the emergence of several organizations that monitor the situation from the given domain: Greenpeace, World Fund for Nature, Planet's Friends, because since 1976-1989 a number of ecological accidents and disasters have taken place.

The importance of environment and the acknowledgement of the seriousness of the problem at global level is pointed out by the above-mentioned organizations that have undertaken a range of measures in this domain by organizing international conferences, reunions, sessions, etc. where global solutions for the environment protection are being examined. Thus we witness the emergence of diverse environmental standards: BS 7750 (the first English environmental standard), the model EMAS (Eco Management and Audit Scheme) and ISO 14001 (Management System of the Environment).

All these actions undertaken by European and world bodies place emphasis on the importance of environment for the humanity. Given the fact that the Republic of Moldova constitutes a part of the Danube river basin, in these conditions it must take advantage of the opportunities for development offered by this positioning.

At present the Danubian Space constitutes a wealthier and economically more efficient zone which includes four main axes: connectivity, environment protection, the increase of wealth and the good management. Therefore the entrepreneurs from riveran countries must place emphasis namely on these aspects of their development. The present framework of regional cooperation in the Danube basin covers the domain of environment protection through the International Commission for the Danube Protection.

From this perspective, specific rules concerning the environment protection are being established among the states [1, p. 197]:

- ❖ The Suveranity of each state to exploit its own resources, but in such a way as not to cause any damage to the environment in other states or regions not subject to a national jurisdiction;
- ❖ The International cooperation in the settlement of environment protection problems then when these ones expand over an international community;
- ❖ Informing the neighbouring states susceptible to be affected by incidents or accidents that can provoke prejudice to its environment;

❖ Granting international assistance to the states with a critical situation in what concerns the environment, etc.

In the present economic context marked by globalization, the concerns regarding the environment protection and the multiplication of harmful effects of the industrial development upon the environment have become particularly urging. In this period the society requirements regarding the environment protection, and also the ecological criteria in the distribution of goods and services on the market are increasing.

In order to favour this process, at the macroeconomic level systems of promotion of ecological products by ecological labeling have been introduced. From the other point of view, national, regional and international models of environment management are being elaborated, which are meant to keep under control all aspects of environment of the economic agents.

Ecological marking systems are intended to influence the consumer decision, so as to persuade him to prefer to purchase environmentally friendly products, determining an increase of the interest of organizations for the design and realization of such products. The Ecological movement becomes in such a way a promotion tool for the products that are distinguished by ecological characteristics, capable to positively influence the purchasing decision, in the conditions of an especially diverse offer.

The **Ecological Mark** is a graphical symbol and/or a brief descriptive text applied on the product, packing, in a brochure or another informative document that accompanies the product and offers information about at least one and at most three types of impact upon the environment. An eco-marking identifies the general environment performance of a product or service within the category of goods or services based on the life span analysis.

The ecomarking scheme offers an ecological label to those products that are considered to be less harmful for the environment than other ones from the same group of products. The ecomarking is a voluntary method of certifying the environment performance and is practiced throughout the world.

The first system of ecological marking of products was introduced in Germany in 1978 with the denomination „*Blue Angel*” (table 1), as a response to the increase of ecological concerns of consumers. This system is patronized by the Federal Agency for the Environment which decides if a product meets the established ecological performance criteria. The respective mark is represented on the product

label, being accompanied by detailing the motives due to which the product is considered compatible with the environment [2, p.428].

Also in Germany in 1990 the system of ecological packing called „*Der Grüne Punkt*” was introduced for the first time, which has as objective the management and financing of collection and recycling of products.






The German system of ecological marking was adopted by other European countries such as: France, England, Denmark, Great Britain and Holland.










Also at the community level, ecological marks for recyclable packing have been adopted. Thus, in case the product or packing contains reused paper or board the mark from fig. 1 is being applied.



Figure 1. The most frequently used graphical symbol – Möbius wave.

Table 1. Models of ecologic marks

Region/country	Mark denomination	Mark	Founded
UA	Green Seal		1989
Finland, Iceland, Norway, Sweden and Denmark	Nordic Swan		1989; at present – applied at 60 groups of products
Austria	Austrian Ecological mark		1991

France	NF		1991; at present 155 marked products
Germany	Blue Angel		1977; 4000 products, 800 producers
Holland	Milieukeur		1992
Sweden	Good Environmental Choice		1992; at present 1418 eco-marked products
European Union	Ecological mark of EU		1993
Hungary	Hungarian Ecomark		1993
Spain	AENOR		1993
Canada	Environmental Choice Program		1995
Czech Republic	Environmentally Friendly goods		1998

The technique of ecological marking was standardized internationally (creating the standards from the ISO 14020[3], Group), in order **to confer** a higher level of confidence on the market, and the messages conveyed by ecomarks to be understood and have a recognized signification throughout the world, and so as to offer the consumers the possibility to manifest their options and adherence to the

ecological programmes and products. In order to offer the necessary level of flexibility, the international standards stipulate three types of environmental marking: [1, p.251]

- **Environmental marking type I** (regulated by ISO 14024[4]), also called *third party marking*. This type is used for staples, toothpaste, detergents and other consumer goods.
- **Environmental marking type II** (regulated by ISO 14021[5]) give the possibility to the executor, distributor or importer to declare on their own responsibility the ecological properties of products on which these marks are to be used (for instance; the product is biodegradable, the product is recyclable, the product does not affect the fauna etc.).
- **Environmental marking type III** (regulated by ISO 14025), can basically be applied to any types of products.

The European Practices in the domain of Environment Management have become lately – tools of reference for the increase of environment performance of companies. The community system of environment management and audit, respectively ISO 14000 series constitutes a one of them.

The ISO 14000 group includes two categories of main standards, **according to the modality of approach of environmental aspects** of the organization, and namely from the perspective of its processes or the goods and services that it obtains.

ISO 14000 standards are general standards intended for keeping under control the impact of the processes of the organization in general, upon the environment. They define models of management systems for the environment, which can be implemented by an organization for internal or external purposes. At the same time, they offer the necessary tools for the evaluation of the conformity of the management system for the environment with the chosen referral, the evaluation of the environment performance, the preliminary analysis and the evaluation of the environment of placement of the organization [6, p. 134].

ISO 14000 standards in reference to management systems for environment have been so conceived as to be able to be applied to any organization, irrespective of geographical zone or socio-cultural medium in which it performs its activity [7, p.4]. These standards do not assume the role of absolute referral „international lawmaker” [8, p.3], which would be used with the aim of modifying the duties that

pertain to the organizations due to working regulations referring to environment protection or other applicable regulations.

Management system for the environment is defined as representing that part of the general system of management, that includes the organizational structure, the planning activities, the responsibilities, practices, procedures and resources for the elaboration, implementation, realization, analysis and maintenance of environmental polices [9, p.6].

The successful implementation of a management system for the environment is conditioned by the engagement of all the levels of administration, especially by the upper management of the organization.

The **ISO 14000 standard** stipulates requirements concerning the management system for the environment, applicable to any organization that has the objective to:

- Implement and enhance the management system for the environment.
- Insure the conformity of the system with its environmental policy.
- Prove the conformity of the system with this standard.
- Certify and register the management system for the environment.
- Perform an autoevaluation or declare on its own responsibility the conformity with the requirements of the standard.

The requirements of this standard are integral in the management system of the organization and its elements can be adapted in such a way as to ensure the conformity with the requirements of the standard.

On the other hand, the concrete modality of standard application depends upon a series of factors, among which the environmental policy of the organization, the nature of its activities, the concrete conditions in which it performs.

The **ISO 14001 "Management system for the environment"** – is a standard that specifies the requirements of a management system for the environment so as to allow the society to formulate and implement a policy and objectives that take into consideration legal requirements regarding the significant aspects of environment.

The structure of management system for the environment elements, stipulated by the **ISO 14001 standard**, was performed following the stages of the PEVA cycle,

establishing so the necessity for the continual increase of all the processes which are implied in such a system.

In 2004 a new variant of ISO 14001 standard was elaborated. The **ISO 14001:2004** standard has a wide application at the international level and contains obligatory requirements concerning the observance of legislation or other applicable regulations for the environment and represents the reference standard for the implementation of a management system for the environment.

The second group of standards from the ISO 14000 series is intended to keep under control the impact of goods and services upon the environment.

They equally offer some tools which serve to optimize the decisions of an organization, concerning the amelioration of its goods and services, as well as the decisions which are taken by those responsible with the elaboration of environment policies at the macroeconomic level.

The implementation of management system for the environment within the enterprise would offer the following advantages:

- *The amelioration of the image of the organization: by complying with the requirements concerning the environment protection;*
- *The amelioration of relationships with the public authorities, with the socio-economic community as a whole;*
- *The restriction of civil and criminal responsibility, by complying with the legal regulations concerning the environment and other applicable requirements;*
- *The reduction of costs by diminishing the consumption of energy and raw materials, the recycling of products and packing etc.;*
- *Complying with the financial criteria of diverse investors;*
- *Enabling the access on other markets, by ensuring the conformity with standards concerning the environment management, internationally adopted;*
- *Complying with the clients requirements, regarding the certification of conformity with the management system for environment of suppliers, with the applicable standards;*
- *Increasing the awareness of the personnel of the organization regarding the environment protection.*

Upper management of the enterprise is the one responsible for the implementation of management system for environment, that should meet the requirements stipulated by ISO 14001 standard.

According to this standard for the implementation of the management system for environment within the enterprise, the following stages should be followed (Table 1) [10, p.81].

The successful application of the established measures by the environment management programmes is conditioned by the insurance of the necessary human, material, financial resources.

In the case of the implementation of a management system for environment, in accordance with the ISO 14001 standard, a clear definition of responsibilities, the insurance of a necessary competence level and of a corresponding internal and external communication, the documentation of the management system for the environment, keeping under control the activities, preventing the critical situations and the ensuring the organization reaction capacity at such situations **is a must**.

The responsibility for the identification of requirements regarding the necessary resources concerning the implementation and keeping under control of the management system for environment and for the provision of these resources belongs to the management of the enterprise.

First of all, the management should appoint its representative who must have the necessary responsibility and authority for the implementation of the management system for environment.

Table 1. Stages of the implementation of the Management System for Environment, according to ISO 14001 standard.

Standard Stages:	ISO 14001
Stage 1:	Diagnostic-analysis of the organization and of the existent system (preliminary analysis of the environment)
Stage 2:	The training of project management / team
Stage 3:	Establishing the policies and objectives
Stage 4:	Elaborating the documentation
Stage 5:	The training of the process proprietors/chiefs of departments

Stage 6:	Operational implementation of the system
Stage 7:	System verification and validation o
Stage 8:	Internal audit of the environment
Stage 9:	Selection of the certification body
Stage 10:	Providing assistance during the certification process
Stage 11:	Providing post certification assistance

The management representative must make sure that the requirements regarding the management system for environment are defined, implemented and maintained. He reports directly to the management of the organization, concerning the evolution of performance of the management system for environment, so as to be able to take the necessary steps for improvement.

It is also important that the responsibilities concerning the management system for environment to be defined documented and reported to the people in question.

Relatively frequently, the chief of the Quality Department is named the management representative for the management system for environment. He is supported in his activity by this department, with direct responsibilities in the implementation and maintenance of management system for environment.

In some enterprises there are responsible for the environment management at the level of each department of the enterprise. They have the responsibility for the corresponding unfolding of activities regarding the environment management, in the respective department.

In the achievement of objectives regarding the environment, a primordial importance is given to the insurance with personnel correspondingly qualified.

Therefore, the responsibility for determining the level of experience, competence and professional training, necessary for the implementation and insurance of the management system for environment efficiency, belongs to the management of the organization.

According to the ISO 14001 standard, some procedures concerning the identification of specific needs for training should be elaborated, taking all the necessary steps for providing this training, especially in the case of the people who perform activities that can have a significant impact upon the environment. These

procedures would also define the way in which they are elaborated, implemented and evaluated the training programmes.

The organization would also require that the subcontractors should prove that their personnel possess the necessary training level in these respects. From the other point of view, a coherent programme of creating awareness to the entire personnel should be elaborated and implemented, that is not only the directly involved personnel in activities with impact upon the environment, so as that everybody understands” (9, p. 9):

- *the importance of observation the environment policies, of procedures and requirements concerning the management system for environment;*
- *the real or potential impact of the activities that it unfolds upon the environment and the positive effects that can be obtained in these respects, by improving the proper performance;*
- *everybody’s role and responsibility regarding the insurance of the conformity with the environment policy, with the procedures and requirements regarding the management system for environment, including the prevention of critical situations and the insurance of the capacity to efficiently react in such situations;*
- *the possible consequences for the non observance of the specific work procedures.*

In the case of the implementation of management system for environment according to the ISO 14001 standard, the organization must elaborate and maintain procedures regarding this system and the environmental aspects of its activities, goods and services. These procedures are necessary for keeping under control the communication processes regarding the environment, within the organization and with all parts involved.

The procedures must clear out the way in which the information coming from interested parts is being received and documented and how it would be responded to their requirements regarding the aspects of environment of the organization.

The insurance of an efficient communication is conditioned by accepting and encouraging a continuous dialogue with the interested parts, with the same aim it is recommended that the organization should prove to be transparent concerning aspects of environment of its activities, providing correct and complete information, concerning these aspects, equally the organization must document the

way in which it would ensure the communication with public authorities, for solving emergency situations and other problems.

The elements of the management system for environment must be described in a corresponding documentation, which must also emphasize the relationships between these elements.

The degree of dealing of the documentation depends upon the concrete situation of each organization, not being obligatory to elaborate a unique manual. Anyway, it should be noted how the access to more detailed information concerning the functioning of each element of the management system for environment. This documentation can integrate or associated to the documentation elaborated for other purposes.

In order to keep under control the documentation and management system for environment, according to the ISO 14001 standard, the organization must elaborate and update procedures, so as to ensure that:

- *documents can be localized;*
- *documents can be examined, reviewed and validated by experts;*
- *the updated version of documents is available in all the places where essential operations are being performed for the effective functioning of the system;*
- *outdated documents are being operatively withdrawn and protected in order to prevent their involuntary usage;*
- *all outdated documents, kept for legal purposes and/or with the aim to maintain some information, are correctly identified.*

The elaboration and modification of documents is performed on the basis of procedures, establishing clearly the implied responsibilities.

In order to keep under control the activities associated to aspects of environment, these ones will be first of all identified and planed, ensuring permanently keeping them in accordance with the policy and objectives for environment of the organization, with the same view documented procedures must be elaborated regarding these activities.

Such procedures would also be established in respects of significant and identifiable aspects of environment of goods and services used by the organization, procedures that would be conveyed to the subcontractors.

A special attention should be paid to the prevention of accidents and other emergency situations, taking at the same time, all the necessary steps to ensure the capacity of the organization to react to such situations.

With this aim in view, according to the ISO 14001 standard, the organization must elaborate documented procedures regarding the emergency situations, procedures that would be periodically updated, taking into account the evolution of the phenomena, especially the prevention procedures for emergency situations after the occurrence of some accidents with an impact upon the environment, would be analyzed and revised.

The verification of the programmes application and the evaluation of the results obtained in the environmental management implies the supervision of the performance of activities, the making of measurements of their characteristics, the establishment and unfolding of preventing and correcting actions, the corresponding administration of records concerning the environment, the making of audits of the management system for environment.

a) The supervision of activities and determining their characteristics.

In order to ensure a corresponding supervision of activities, that can have a significant impact upon the environment, it is recommended:

- *The elaboration of documented procedures with reference to the supervision of activities and to the determination of their characteristics;*
- *The inclusion in the procedures of the modality of recording necessary information for the supervision of activities performance, in relation with the organization objectives concerning the environment;*
- *The display of the supervision equipment and ensuring the maintenance activities, keeping the records concerning these activities;*
- *The elaboration of a documented procedure concerning the periodical evaluation of the conformity of activities with the applicable environment regulations.*

The supervision of activities that can have a significant impact upon the environment refers to: the supervision of processes that intervene in the relationship with the subcontractors, of raw materials and purchased materials, the supervision of processes (by interphase inspection), the supervision of the

achievement of objectives concerning the environment, the periodical evaluation of the conformity of activities with the applicable environment regulations etc.

b) Nonconformities, preventive and corrective actions.

Within the management system for environment the organization must place emphasis on preventive measures, so as to avoid, as much as possible, the emergence of nonconformities in the unfolding of activities with a significant impact upon the environment.

At the same time the organization must ensure that nonconformities, as they appear, would be kept under control. With this aim the following elements must be taken into account:

- *the establishment of responsibilities and authority concerning the analysis of nonconformities and the implementation of corrective and preventive actions which are imposed by documented procedures;*
- *the evaluation of the importance of the problem, respectively of the impact of nonconformities upon the environment;*
- *the identification of all real and potential causes of the nonconformities;*
- *the establishment of necessary corrective actions and their implementation;*
- *the making of inspections necessary for avoiding the repetition of nonconformities;*
- *the record in the procedures of the intervened modifications, as a result of corrective actions.*

The procedure concerning this element of the management system for environment must clear out:

- *the criteria of identifying the nonconformities;*
- *how the causes of nonconformities would be established;*
- *how the necessary corrective and preventive measures for limiting the impact upon the environment would be defined;*
- *how the repetition of nonconformities would be prevented;*
- *the way of registration and observation of the effects of the undertaken corrective and prevented measures.*

In practice, the nonconformities in question are called environmental incidents. As recording documents „the analysis bulletins of environmental incidents” and „reports concerning environmental incidents” are being used.

c) Keeping under control the records concerning the environment.

In order to keep under control the records regarding the environment, according to the ISO 14001 standard, the organization must elaborate procedures concerning the identification, updating and withdrawing these records. The procedures especially refer to the necessary records for the verification of the efficient functioning of the management system for environment and for distinguishing the recorded progress in the achievement of the established objectives in this domain.

Such records may contain information concerning [9, p.16]:

- *The legislation concerning the environment and other applicable requirements;*
- *Declarations concerning aspects of environment of the activities, goods and services of the organization;*
- *The training of the personnel in the domain of the environmental management;*
- *Inspection, the maintenance and display of the inspection equipment;*
- *Significant aspects for the environment of the activities of the goods and services of the organization;*
- *Emergency situations and the response capacity of the organization;*
- *The results of the audits of the environment;*
- *The analysis of the management system for environment, made by the administration;*
- *Notifications, complaints concerning aspects of environment of the activities, goods and services of the organization.*

The records concerning the environment must be identified and archived so as to easily refine them, in connection with the products and activities to which it refers. These records are being kept a specified period, so as to demonstrate the compliance with the requirements and the fact that the management system for environment, implemented by the organization is operational. In conclusion we can allege that the entrepreneurs from this zone must give priority to the problems of the environment and to implement a model of environmental management.

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