
THE STAGES OF IMPLEMENTING AN ENVIRONMENT MANAGEMENT SYSTEM IN AN ORGANIZATION

Conf.univ.dr. Cibela NEAGU

Universitatea ARTIFEX București

Lector univ dr. Aurel NEAGU

Academia de Poliție Al.I.Cuza București

Abstract

We are witnessing a growing concern of the humankind towards increasingly complex issues of environmental protection. The environment is an essential part of any development process and includes connections and interrelationships between people and natural resources. As a result, the changes suffered by the environment are generated not only by natural events, but also by the practical manifestation of some development models, practices and ways of life. Reciprocally, any change to the physical environment creates significant socio-economic consequences that affect the quality of life.

Key words: environmental management system, organization, improvement, corrective action

Introduction

The implementation of an environmental management system (EMS) within an organization is a complex process that in the vision of the economist A. Vlavianos-Arvanitis is conducted with the following principles:

1. *Commitment and policy.* An organization should define its environmental policy and ensure commitment to the EMS.
2. *Planification.* An organization should form a plan to meet environmental policy.
3. *Implementation.* For an effective implementation an organization must develop facilities and support mechanisms necessary to achieve environmental policy, its objectives and targets.
4. *Measures and Evaluation.* An organization should measure, monitor and evaluate environmental performance.
5. *Reviewing.* The management should review and evaluate the EMS at defined intervals to maintain its effectiveness and continuous improvement.
6. *Improving.* An organization must continuously improve the EMS, with the objective of improving the overall environmental performance.

The implementation of an EMS in an organization must be based on one of the standards of environmental management (EMAS and / or ISO guidelines). Each of the two methodologies are based on the principle of continuous improvement, formulated for the first time in quality management by prof. Edward Deming in the '60s.

EMS implementation stages

To implement an EMS in an organization, four steps need to be taken:

- I. Environmental Planning;
- II. Implementation and operation;
- III. Checking and corrective action;
- IV. Management analysis.

Stage I. Environmental Planning. Planning is one of the most important stages in the process of building and implementing an EMS. For this the following must be determined:

- The organization's environmental policy;
- Environmental matters;
- Legal procedures and other requirements;
- General objectives and specific targets;
- Environmental management program.

The environmental policy of the organization should define the objectives and principles of action environment-related, including the alignment of all requests regarding the environment. The environmental policy forms the base upon which the organization sets its objectives and targets. This policy must be sufficiently clear to be understood easily by all stakeholders and must be reviewed and revised periodically to reflect changes in the domain. In addition, senior management must ensure that the environmental policy of the organization is positive with nature, size, impacts and environmental impacts of its activities, products or services that include a commitment to continuous improvement, pollution prevention and alignment with environmental legislation, that is documented and communicated to all employees and is available to the public.

Environmental policy management is defined as a statement that must reflect the fact that the principles and intentions regarding the organization's environmental performance are identified, documented, implemented and communicated.

Environmental aspects. The organization shall establish and maintain procedures to identify the environmental aspects of its activities, products or services that it can control and over which can have influence in order to determine those which have or can have a significant impact on the environment.

The organization must consider, when setting its environmental objectives, everything related to these significant impacts. An organization without an EMS initially needs to state its current position regarding the environment by means of a review. The goal should be a consideration of all environmental aspects of the organization as a basis for EMS.

Legal and economical procedures. An organization complies with legal environmental requirements if it complies with all laws and regulations relevant to the organization. An organization must comply with all relevant legal requirements, even without an environmental management system (EMS). On the other hand, an organization can not comply with such regulations, since in various cases authorities may accept non-compliance with the legislation.

Environmental objectives and targets. Organizations must establish and maintain documented objectives and targets at each relevant function and level within the organization. When establishing and reviewing its objectives, an organization must take into account legal requirements or otherwise, significant environmental aspects, technological options, financial operational or business requirements. Objectives and targets should be consistent with the environmental policy, including the commitment to prevention of pollution

The environmental management program. The program of environmental management is a description of the specific objectives and activities that a company must establish to ensure greater environmental protection in a certain place, including a description of the measures taken or envisaged to achieve these objectives. Creating and using one or more programs is a key element to successfully meet the Environmental Management Standards.

These programs include:

- designation of responsibility for achieving objectives and targets at each relevant function and level of the organization;
- the means and the time to be achieved.

Stage II. Implementation and operation. For an effective implementation of the environmental management system it is recommended for the organization to develop resources and support mechanisms necessary to perform environmental policy, objectives and targets in this domain.

For the implementation of an EMS the following must be defined:

- Structure and accountability;
- Training and awareness;
- Documentation of the EMS;
- Document control;
- Operational control;
- Prevention (emergency preparedness and response capacity).

Structure and responsibility. A program must define, document and communicate the roles, responsibilities and authorities needed to facilitate effective environmental management. Management shall provide resources essential to the implementation and control of an EMS. Resources include human resources, but also financial, technological and specialized ones.

The superior management of the organization will appoint an *environmental manager* who will have roles, responsibilities and authority well defined to ensure that the requirements of the EMS are established, implemented and maintained according to the EMS which also reports the EMS performances to the superior management to form the basis for improving the EMS.

Training and awareness. Tasks-performing staff which can cause significant environmental impacts shall be competent based on appropriate education and training and / or based on experience. It is essential for employees at each relevant function and level to be aware of:

1. The importance of and compliance with environmental policy and EMS requirements.

2. Significant environmental impacts, actual or potential environmental benefits of their activities and improved personal performance.

3. The roles and responsibilities in achieving conformity with the environmental policy and procedures, but also with the requirements of EMS, including emergency preparedness and response requirements.

4. The possible consequences of departure from specified operating procedures.

Communication. To achieve the desired quality of communication, the organization shall establish and maintain procedures for internal communications between different levels and functions of the organization, also for receiving, documenting and responding to relevant communication to the stakeholders. The organization must also form an increasing responsibility at “external” inquiries and to develop the ability to consider and record information from sources governing common activities.

Documentation of the EMS. To document its EMS and to describe the basic elements of the management system and their interaction, an organization must establish and maintain procedures to control all documents required by EMS. The documentation should also contain records consisting of:

- information about applicable environmental laws and other requirements;
- registration of complaints;
- training registration;
- process information;
- production information;
- inspection and maintenance records;
- relevant information about providers and beneficiaries;
- records of incidents;
- information about significant environmental aspects;
- audit results
- management reviewing.

Stage III. Checking and corrective action.

This step is a key element of the environmental management system, which comes after planning and implementation of the environmental policy. The aim is to ensure that the organization controls and corrects, where appropriate, key elements of the environmental management system. Therefore it is recommended for the organization to monitor and evaluate its environmental performance.

This stage involves:

- Monitoring and measurement;
- Non-conformity, corrective action and preventive action;
- Recordings (reports);
- Environmental management system audit (internal and external).

Measuring, monitoring and evaluation are key activities of an environmental management system. In their absence it would not be possible to establish the nonconformities and ,therefore,neither the specification of correct and/or preventive necessary actions. Also, the audit of an EMS would be deprived of the basic elements in reaching its conclusion.

Stage IV. Management analysis. The organization should analyze and continuously improve its environmental management system, aimed at improving overall performance. This last step is crucial for ensuring continuous improvement to achieve the proposed environmental performance. These analyzes can be made with the analyzes quality management system done by the leadership.

To maintain continuous improvement, fitness and effectiveness of the EMS, and through this,its performance, the organization management should review and assess the EMS at defined intervals. The management review will ensure that the necessary information is collected to allow management to continue this assessment.

This review shall be documented. Management review will address the possible need to change the strategy, objectives or other elements of the EMS, in light of the audit systems of environment management results, changing circumstances and the commitment to continuous improvement. The scope of the review should be extended for a period of time. Reviewing the strategy, objectives and procedures must be carried out at the managerial level which defined them.

The review should include:

- the audit results;
- the extent to which they achieved objectives and targets;
- continuous convenience of the EMS related to the changing information and conditions.

The observations, conclusions and recommendations should be documented for necessary action.

The steps required to implement an environmental management system in an organization form,through their cyclical and repetitive character, the Deming cycle of continuous improvement in the environmental performance of the organization. The concept of continuous improvement is based on the premise that no organization is perfect. An EMS will help an organization in improving compliance and environmental performance, but this does not mean that environmental problems will no longer appear. An EMS identifies and removes functional problems and prevents their re-emergence.

Projects on a big scale promoters and managers are forced to look cautious and to address environment early in the project planning process.

The implementation of an EMS,according to ISO 14001 requires the involvement of all staff of the organization, whatever level of seniority and functions involved, and especially the employment of a dynamic and cyclic process of continuous improvement and self-assessment of environmental impacts.

Advantages and disadvantages of the EMS.

Environmental management is an ongoing process and aims at continuous improvement of the environmental performance of the organization. An organization which implements an effective EMS will help protect human health and the environment from the potential impacts of its activities, products or services and will help maintain and improve the environment.

Implementing an EMS can help an organization to give stakeholders confidence that:

- there is a management effort to ensure that the provisions and policy objectives are achieved;
- the focus is on prevention rather than on corrective action;
- records of the needed care and of the regulation conformation can be assured;
- the system design includes a process of continuous improvement.

Advantages associated with an effective EMS. The correct functioning of an EMS ensures improving organizational performance through the positive impact it can have on the following issues:

1. Improvement of the environmental performance;
2. The motivation, awareness and involvement of the employees;
3. Satisfying the criteria of investors and improving access to capital;
4. Improving teamwork;
5. Competitiveness improvement;
6. Reduction of operational costs, as a result of:
 - improvement of the environmental performance
 - streamlining the existing processes;
 - introduction of new, efficient processes;
 - reducing the amount of raw materials;
 - waste disposal etc.
7. Reduction of incidents resulting from responsibilities;
8. Increased customer confidence;
9. Conservation of raw material and supply energy;
10. Facilitation of permits obtaining and approvals;
11. Improving the image of the organization to customers, partners and the local community;
12. Reduction of environmental risks.

The disadvantages of an EMS: Employees and managers are often sceptic about the standards of environmental management because the methodology certification tends to materialize more on the production of documents. Employees feel enslaved of the necessity to make additional documents, which can generate long-term resentment and negativity.

The limited resources of the organization are often diverted to solving bureaucratic aspects of environmental management at the expense of the environmental management itself.

Conclusions

Therefore, the environmental management system (EMS) is a structure, a framework in which the activities of organizations can integrate in order to identify, measure, and effectively control the risks and their impact on the environment. Also, an environmental management system establishes ways to improve environmental performance and move the center of gravity for continuity or sustainability through the good practices rules stipulated by ISO 14001.

Bibliography:

1. Covrig, M., Opran, C., *Managementul proiectelor*, Agenția Managerială pentru Cercetare Științifică Inovare și Transfer tehnologic – Politehnica; Ed. Pritech, București, 2000.
2. Diaconu, A, „Managementul calității: influența erorilor de măsurare”, Editura Artifex, București, 288 pag., 2008, cod ISBN 978-973-7631-53-4.
3. Ioan JELEV *Conferinta Natiunilor Unite pentru Mediu si Dezvoltare, Rio de Janeiro*, Iunie 1992. Revista „Mediul Inconjurator”, Vol.III, Nr.2, 1992.
3. Lupan, E., *Dreptul mediului*, Ed. Lumina Lex, București, 2001.
4. Neagu, Cibela - *Managementul proiectelor*, Editura Tritonic București, 2007
5. Teau, A.M., Protopopescu, C. (2015), Key Performance Indicators – Management Tools for Sales Improvement, Revista Română de Statistică Supliment nr. 6/2015, ISBN 2359-8972, pp. 65-71
5. * * * *Program de actiune pentru protectia mediului in Europa Centrala si de Est*, editat de R.E.C. Budapesta, 1993.