

INTEGRATION OF ENVIRONMENTAL MANAGEMENT SYSTEM

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Abstract

The relevance of management as significant factor of business activity can be established on various management systems. These will help to obtain, organise, administrate, evaluate and control particulars: information, quality, environmental protection, health and safety, various resources (time, human, finance, inventory etc).

Environmental management should embrace recent change in the area of environmental protection, and suit the recently regulations of the field -entire legal and economic, as well as perform management systems to meet the requirements of the contemporary model for economic development. These changes are trailed by abandon the conventional approach of environmental protection and it is replaced by sustainable development (SD).

The keys and the aims of Cleaner Productions (CP) are presented being implemented in various companies as a non-formalised environmental management system (EMS). This concept is suggested here as a proper model for practice where possible environmental harmful technologies are used -e.g. Rosia Montana.

Showing the features and the power of CP this paper is a signal oriented to involve the awareness of policy-makers and top management of diverse Romanian companies.

Many companies in European countries are developing corporate environmental strategies to reduce negative impacts on ecosystems. This involves adopting environmental mission statements, conducting audits and monitoring performances. But we have not to forget that the ecosystem is unique for us.

Keywords: Environmental management, quality management system, sustainable development, cleaner production

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Introduction

The complexity of nowadays days development, forced us to think 'integrated'. Sustainable development principles require that environment management policies and practices are not good in themselves but also integrate with all other environmental objectives, and with social and economic development objectives.

Environmental management concern latest improves in sphere of environmental protection, as well as implemented management systems to should meet the requirements of the new model for economic development. These can be confirmed by leaving the conventional approach to environmental protection, using instead it sustainable development. [1] Shortly, we recall what does it means the Sustainable Development. It consists in a continuous economic growth, despite the fact that keeping integrity of **the triad: economy - society - environment**. Sustainable Development (SD) is significant mainly at macroeconomic level (e.g. national or regional). This paper deals with enterprises as an addressee of Sustainable Development. To implement Sustainable Development at the company's level, it is necessary to understand the enterprise as a system and to integrate it as a unit developing an environmental management too.

The Sustainable Development promotes protective strategies, dealing with the pollution prevention looking to build up environmental quality [2] and to diminish unrestrained use of resources (in particular the non-renewable resources). As a result this strategy is a broad-spectrum balance linking economic growth and the use of natural resources. It provides a new approach to a long-term development, as well as taking into account the environmental requirements, in contrast to restrictive view of economic growth at any price.

On this framework Cleaner Production (CP) assigns the same goals and settles on the indispensable measures to be engaged for sustainable development. It points out the importance of reduction of raw materials, consumption of energy and prevention of production of waste and pollution emissions [1]. The possibility is quite wide and cleaner production has been acclaimed to be one of those topics today that accommodates a significant spectrum of disciplines pull out from engineering, designing, sociologists, economists, politicians, and the civil society.

CP as one of the strategies planning environmentally sustainable development has in its sense seen the development and growing importance of other strategies within itself, such as:

- focus on product design and development based on the life-cycle analysis (LCA);
- focus on safer production (management of hazardous materials);
- recognition of the role management systems in introducing environmentally-sound technological change (EMS);
- focus on creating environment conducive for CP rather than interventions at the enterprise level.

The sphere of the Cleaner Production concept found a good niche in economic development. CP is considered as a means to supplementary dialogue between policy-makers and industry. This movement is comprehensive across global boundaries in addressing global environmental issues. The CP concepts have significant implications into areas such climate change and global warming because of its links to efficiency improvement in energy utilization.

In many countries the responsible companies have discovered that some benefits can be obtained by “going green”. This can be achieved by enhancing the efficiency in production, by new mission adapting ecological, and finally improving company image.

Nowadays days is very usual for the people in charge to find the advantages from follow “green” goals. Actually, the companies must understand the competitive advantage to offer ahead of minimum conformity with regulations. If we analyse the issues that are influencing the companies to improve their environmental performance and adopt the environmental strategies we can note that these differ by level as: product, firm or even sector.

Business activity that can be established on various **management systems**. These will help to obtain, organise, administrate, evaluate and control particulars: information, quality, environmental protection, health and safety, various resources (human, finance etc) [2].

Environmental management systems

It is clear that the concepts regarding the environment has changed from the very beginning when it had conventional and dogmatic meaning related to pure the ecological sphere exonerate of economic development, management topics, technological change, social needs and political arguments. No doubt that the new theme surrounding the environment today is management, and the organisation as system.

The management systems can be carried out either autonomously or as an integrated management system that assume as a whole all the problems linked to the management of an organization, no matter which type.

Afterwards the management systems we can identify as:

- Formalised systems, of course these are based on some reference points as standards (standardised systems) or on laws;
- Non-formalised systems [1].

The previous consist of management systems based on the standards series as ISO 9000, 14000 or 18000, as the second point to Cleaner Production or TQM.

Now in Europe there are being used mostly, two formalised environmental management systems (EMS):

- EMS based on BS 7750:1992 –Environmental Management and Audit Scheme -EMAS;
- EMS based on the ISO 14000 series.

The first one (EMAS) was approved by the Council of the European Union in 1993 (Council Regulation No. 1836/93). As other standards is a deliberate scheme for industry. To join in Environmental Management and Audit Scheme a company must review their own environmental performance on a regular basis, and this means to develop an environmental management system. The goals of EMAS are:

- To initiate cleaner technologies;
- To reduce, avoid and remove all emissions prior to leave the process;
- To diminish the use of natural resources.
- This system presumes that companies are fully responsible for their environmental impact. Consequently the company's main responsibilities include:
- To assume a favourable direction to has an environmental policy that will promote continuous improvements in its environmental performance;
- To develop an action plan of environmental area.
- To acquire efficient training programme to enhance employees' environmental awareness;
- To do Eco-audits;
- To put together available, relevant information to the community.

This management system –EMAS- is approachable mainly to the companies that operate industrial fields; still, the method can be accomplish into other economic sectors such as distribution or public services.

Environmental Management System (EMS) is definite:

“An element of general management system that involves organisation chart, planning, responsibilities, codes of practice, procedures, processes and necessary means for developing, implementing, managing, reviewing and maintaining of environmental policy”[4].

For instance management system promotes a continuous improvement in environmental performance by repeating cyclic the subsequent activities:

- To design and implement an environmental policy (environmental planning);
- To achieve the environmental objectives;
- To validate and to prevent (measurement and assessment of effects);
- To scan (permanent evaluation and control);
- To review management activity (continuous improvement of system).

The experience shows clearly that the system requires on-going improvement in comply with environmental performance, thus leading to improvement in environmental management system. Implementation of environmental management system by a company is a value for their positive and truthful environmental approach, as well as for the local communities. This is a reason for which we strive to develop this approach in Romanians enterprises.

Non-formalised environmental management system

Cleaner Production Programme published in 1989 in Paris by the Industry and Environment Programme Activity Centre at the United Nations Environmental Programme (UNEP). In fact Cleaner Production is a preventive environmental strategy based on this program.

UNEP defines Cleaner Production: “The continuous application of continuous integrated preventive environmental strategy to processes, products and services, to increase efficiency of production and services and reduce risks to humans and the environment”.

The key of CP is to promote preventive strategy as opposed to traditional waste reduction approach. Accordingly, it involves in progress pollution prevention for manufacturing processes, as well as products to reduce environmental impacts during production and along the entire life cycle of the product. We stress the strategy of reduction of waste and emissions before they leave the process.

Cleaner Production facilitates the implementation of sustainable development on the company level. It can be also understood as a non-formalised environmental management system. Its aims consist of:

- Improving of environmental quality of manufacturing processes and products;
- Employing cleaner technologies (energy and materials save);
- Accessibility to training programme for employees.
- Cutting off toxic raw materials and products;
- Carrying out technical solutions of high reliability;
- Encouraging efficiency by reducing the generation of waste;
- Implementing closed material cycles along the entire life cycle (design, production, distribution, use and re-used of by-products);
- Supporting environmental products and technologies;
- Nearby recycling industrial waste;
- Decreasing all emissions and waste to the environment.

Cleaner Production can be included in integrated management systems [3]. The CP certification procedure involves four steps procedure:

- 1. Application for Cleaner Production Company's Certificate (after completing the second level training on CP), along with required documentation.
 - 2. Verification of application at the Cleaner Production Centre.
 - 3. Evaluation of applications by the Qualification Committee.
 - 4. Awarding to the company the Cleaner Production Company's Certificate.
- This procedure can be approachable to all companies operating in the industrial and service sectors that want to implement the CP strategy as an environmental non-formalised management system. So far in Romania there is no company reported awarded the Cleaner Production Company's Certificate.
 - The companies granted the Cleaner Production Company's Certificate are subject to site audit on a two years basis to check for proper function of environmental management system based on Cleaner Production.

There were reported numerous ecological accidents in Romania last few years. That point out the responsible of the companies must reflect and decide how to avoid the repetition. This allows the communities, as well as the companies to achieve not only considerable environmental benefits but also large profits.

Generally, the programmes endorsed to be implemented as a non-formalised environmental management system.

It must be done an initiative regarding an Romanian Cleaner Production Centre based on an Agreement on Cleaner Production and Sustainable Development for Industry. The Romanian of Engineering Associations (AGIR) and the Technology Agency and the Romanian Centre for Environment (Testing and Certification) must be aware of Cleaner Production Company's Certificates. The companies that implemented Cleaner Production as an environmental management system can benefit of financial funds [1].

We must take in consideration the favourable access to financial funds based on environmental performance this must be a driving force.

Conclusion

Current condition requires that the environmental policy, also the policy-makers of any country, as well as any other stakeholders have to be more aware of environmental and sustainable development. Cleaner Production is a shielding environmental strategy. It can be used as a non-formalised environmental management system in a company. In our opinion is more appropriate for Romanian business environment.

The benefits of the implementation of this system are the subsequent:

- To the environment by reducing environmental impacts;
- To the company by additional savings and reduced operating costs.

Similar to the formalised environmental system, Cleaner Production involves the improvement of company environmental performance. The experience reports that the companies that were involved in the Cleaner Production programmes assume to decrease waste and emissions, utilization of raw materials and consumption of energy in addition to decrease production costs and environmental fees. All these are completed by continuous improvement through implementing the CP projects.

The costs related to operate a Cleaner Production project are paid back within short time (months or years -depending on project).

Many companies in European countries are developing corporate environmental strategies to reduce negative impacts on ecosystems. This involves adopting environmental mission statements, conducting audits and monitoring performances. But we have not to forget that the ecosystem is unique for us.

All of us, individuals and communities, small enterprises and multinational companies, national policy-makers, are responsible of preserving it for the future generations.

References

1. Adamczyk, J.; *The Environmental Management of Enterprises in the Principles of Sustainable Development Realisation* in "Commodity Science in Global Quality Perspective. Products - Technology, Quality and Environment", 2nd - 8th September 2001, Maribor, Slovenia;
2. Dumitrescu, I.; Mocioiu A.; Visileanu E.-Cleaner production in Romanian textile industry: a case study, *International Journal of Environmental Studies*, Volume 65 (4): 549-562, 2008
3. Riccio V. A.; *OHSAS 18001: Occupational Health and Safety Management Systems Standard* in "Commodity Science in Global Quality Perspective. Products - Technology, Quality and Environment", 2nd - 8th September 2001, Maribor, Slovenia;
4. Beltramo R.; Pandolfi E.; *Environmental Certification of the Municipality of Cesana: A Cost/Benefit Analysis* in "Commodity Science in Global Quality Perspective. Products - Technology, Quality and Environment", 2nd - 8th September 2001, Maribor, Slovenia;
5. www.iso14000.com