**ANNALS of the ORADEA UNIVERSITY.**
**Fascicle of Management and Technological Engineering, Volume X (XX), 2011, NR1**

# METHOD TO INTEGRATE ENVIRONMENTAL ISSUES INTO ENTERPRISE MANAGEMENT POLICY

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**Keywords:**enterprise policy management, impact factor, impact.

**Abstract:**The paper presents a method for integrating environmental issues into the management policy of enterprises.

## 1. THE SOCIETY - ENVIROMENT SYSTEM.

Broadly accepted "environment" means nature, surrounding space, in a being is situates. Thus, the environment include: soil, water, air, natural resources, flora, fauna, human beings, climate factors etc. and the relations between these.

The “environment” notion haze been defined starting from different conceptions:

- *Of the specialist’s*, which observes and studies the mechanisms of the environments: actions of the pollution on the elements of the environment.
- *Of the environments* regarding the life frame, when the notions of life quality, sensed threats are representative.
- *Of the moral and ethics of the environment*, when the responsibility of the society for the conservation of the environment is taken into account.
- *Of the social politics of the environment*, which considers the importance of ways to handle environment change; the control of the relationships towards the environment.

Adoption of either one of these concepts depends on the individual's social position or group of individuals and the implication of this position.For example, the expert’s relationship with the environment is very different from that of ordinary citizens whose quality of life depends in part on the environment on which he exercised a certain influence. Yet the two concepts are not mutually exclusive: the scientist or the decision maker can be an ordinary citizen which supports a life framework and which can adopt a moral position towards the social responsibilities regarding the environment.Shows that there is not a sole representative of the environment, but most of the concepts of environment depend on the person.

To analyze the interaction between humans and the environment, we acknowledge the existence of two systems: society and the environment.

### 1.1 Society-environment interaction.

We will specify the relationship between environment and society where every individual has a personal conception about the environment. J [THEYS 93] is proposing three conceptions regarding the Society-environment couple:

- *The objective and biometrical conception:* the environment is equated with nature made for a variety of natural objects (living organisms, minerals resources, ecosystems, etc.) interacting with each other, society is composed of individuals who are dependent on the functioning of natural elements and nature. As a result, the environment is a constraint on which society must adapt.

- *Subjective and anthropocentric conception:* the environment is considered as a system of relationships person / object, between man and his environment is defined and

relatively suitable for human perception. Following environment is no longer defined as a constraint but as a resource on which the society has possibility to manage.
The two concepts, although take opposite positions have in common a net difference between society and environment:society considers the environment as an external factor perceived as a constraint or as a resource.Considering the limitation of environmental resources (raw materials and self-purification capability), they become an internal constraint of the society. This is translated by the apparition of the sustainable development concept and it involves the idea that the continuity of our society is threatened by the depletion of the environmental resources.

- *Technocratic conception:* consider that a clear distinction between society and environment is not adapted to the complexity of reality: there is a mutual dependence of society and the environment, a mutual interpenetration generates constraints;

### 1.2 Society-environment interactions mechanism.

In relation with the quality of human life we introduce two components:

- *the natural component:* which includes those offered by natural environmental, in relation to which life has adapted over evolution;
- t*he artificial component:* that provides those conditions which, with the development of civilization, man has built for its ever growing needs.

Human intervention in favor artificial component of quality of life is, most often at the expense of quality natural component.Increasing degradation of the natural component endangers life on planet. So the imperative need arises that human intervention is to affect as little as possible the conditions offered by the environment.This damage began with the development of civilization to which is strongly dependent, so that currently the natural component of life quality deterioration is alarming.

### 1.3 The representation of society-environment system
### 1.3.1 Economic activity and social life.

The society has two sub systems:

- *economy*, represented by the production of goods and services, which are the result of production elements located on several levels:
  - Individual level: workers, heads of departments, etc..;
  - The group level of individuals: workshops, enterprises;
  - The level of enterprise regrouping: multinationals, cooperatives, associations of enterprises, etc.
- *social life* - represented by the daily work of citizens which are structured as follows:
  - Individual level: citizens, families;
  - Level of the groups of individuals: consumer associations, owners associations, etc..;
  - Level of the regrouping of individuals and / or associations: local collective, urban communities, etc.

So, some elements of the two subsystems consisting of individuals and objects are common: for example, a producer working in economic matters and citizen in the sphere of social life, as a city or a transport infrastructure as part of both subsystems. So there is an intersection of the two subsystems.

### 1.3.2 Introducing the relationship with the environment.

Environment can be also considered on several levels:

- Local level (soil, groundwater)
- Regional or continental level (rivers)
- Planetary level (atmosphere, climate)

The three systems (social, economic and environmental) intersect with a common area where items such as: green spaces, lakes artificial,cultivated fields, forest plantations, etc, can be found.

The crossing of these three systems (social, economic, environmental) denominates the action field for a durable development that it's proposed the denomination of the strategy which to assure a balance between these systems (social, economic, environmental) [2, 3].

### 1.3.3 Passive elements of the system.

As elements of the system, objects can specify, physical elements of each system:

- Social life: *cities, villages, houses*;
- Economy: *industrial areas, industrial sites, workshops*
- Environment*: the planet, continent, region, local area*;

Also the nature of exchanged physical flows between these systems can be specified:

- Social life- economy:
  - flow of goods and services for cash flow;
- Social life- environment:
  - For taking over or use: use of space (development of cities, transport infrastructure), consumption of: air, water, raw materials, energy.
  - For waste: waste and emission, controlled or not in the environments: water, air and soil;
- Economy-Environment:
  - For taking over or use: Use of space (construction of companies, transport infrastructure), consumption: air, water, raw materials, energy.
  - For waste: waste and emission, controlled or not in the environments: water, air and soil;
  - waste generated by industrial activity;

This way the compatibility of the flows, depending on the activity of each system, shows a drawback: if global representation of the three systems can be reached taking into account twice the same element which may belong to two different streams (input or exit of the system). Therefore, it is necessary another type of representation of the participating elements in the exchange between systems.

### 1.3.4 Exchange flow: environmental impact factors.

*The effect* is generated by a cause-example: a substance may have an effect on the environment, in certain circumstances.

*Impact factor* is a specific cause which can generate a potential impact on the environment;

*Impact* is represented by the effect size which is the difference between the initial state (before the action of the impact factor) and the final state (after the action of the

impact factor).

Impact factor can be generated: *naturally* (rainy season, dry season, earthquakes, volcanic eruptions, etc) or *artificially* (waste, noise, contaminants, etc.). As a result the effect will also be natural or artificial.

If certain factors of impact produce a certain size effect on the environment, then environmental changes occur. These effects can be targeted:

- *Air*: Climate change, pollution with different gases or chemicals, etc.
- *Water*: pollution by various substances that affect the quality of water intended for human consumption, watercourses, marine waters, etc.
- *Soil:* pollution with different substances.
- *Biodiversity*, landscape: degradation and deviation from their natural state.
- *Depletion of resources*: non-recyclable (fossil materials) or recyclable(mineral matter);

Modifications to the environment can be compatible or incompatible with the evolution of life, the first are those changes that take place with a slow speed allowing adaptation of life (plants, animals, etc.) to these change. Changes incompatible with the evolution of life on Earth, are not desirable, because they compromise the living conditions leading to extinction of some species. Such changes are: climate change, air pollution, water pollution, soil pollution, etc.

### 1.3.5 Active elements of the system.

The active factors of the three systems are considered as vectors of information, as follows:

- For social life: consumer associations, tenants associations, citizens;
- For the economy: business associations, employers' unions, industrialists, artisans, and laborers;
- For the environment: environmental specialists, environmental nongovernmental organizations.

Active factors play a role in the relationship society (social life + economy) - environment and state's elected officials occupy a central position, applying decisions to operate all three systems, acting on the flows exchanged between them.

## 2. ENTERPRISE AND ENVIRONMENT

Companies adopt, towards the relationship of society - environment, an anthropocentric view, regarding which perceive the environment as a resource they exploit. Or attitude that is required towards the environment, namely the integration of safety constraints, it is against this conception.

It implies two questions that need to be answered:

- Why should companies integrate environmental concerns into their functioning?
- How can companies integrate environmental concerns?

### 2.1 Relationship with parties interested environmental surroundings.

The enterprise is an element of the economic system and is in a relationship with other elements of this system and other elements of the other two systems: society and environment. Elements of the latter, out of its own reasons, can make it so that in their relationships with the enterprise the environment can intervene, so these elements can be

called "interested parties"

An interested party is, according to ISO14001, an "individual or group interested in or affected by the environmental performance of a body."As interested parties of an enterprise as: business partners, financial partners, institutional partners, pressure groups (the association of media consumers, etc.).

### 2.1.2 Company objectives and environmental issues

It can be considered that the enterprises objectives are grouped around three issues:

1. To exist;
2. To make a profit;
3. To develop.

Signing up the enterprise in a process of environmental compliance requirements will be reflected in the objectives that the enterprise had established.

For the enterprise, the identification of environmental problems:

- Identifying the gains that can make the enterprise better take into account environmental issues.
- Identifying risks that make the enterprise to disregard environmental issues.

Environmental issues through the eyes of risk / gain, by the enterprise, it will have two types of approaches:

- *Reactive approach* -when considering the environment solely due to the constraints to avoid a hazard, it is the short term approach;
- *Pro-active approach* - when considering the environment, voluntarily optimizing gains, it is the medium to long term approach and its economic stake for the enterprise: competitiveness, market positioning, brand image, etc.

In the last time, the legislation about environmental as well as the proper interests of economically institutions and organizations make these more and more interesting to control of proper impact activity about environmental. This measure leads to continuous improving of the environmental performance for this organization, which is materialized by performance indicators.

ISO 14031 denominates The Environmental Performance Indicator (EPI) as being this “specific expression that delivers information about the environmental performance of the organizations”.

## 3. IMPLEMENTATION OF A CONTINUOUS CYCLE IMPROVEMENT BASED ON ENVIRONMENTAL PERFORMANCE EVALUATION.

The method aims to enable the enterprise:

- Data acquisition of the field: the business activity is known, but must be decrypted through environmentalprism: enterprise workshops will be analyzed identifyingthe specific factors of interaction. So now the enterprise will take in accountthe environmental impact factors.
- Identification of regulatory violations and corrective action program
-Identification of specific improvement targets based on environmental requirements.
- Openness to the outside through organizing a communication as an response to the expectations of interested parties;

To make the connection with the application of an EMS intercession will be made for a continuous cycle of improvement relying on the construction of an information system based on defining performance indicators.

### 3.1 Structure of the method.

We define four stages of work. Each of these phases will take place in several stages using different means (tb.1).

**Table 1 –Defined stages of work.**

| Phase I **: Assessing of environmental performances** | |
|---|---|
| ***Stages*** | ***Resources*** |
| The analysis of legislative foresight and of regulations | - the study of international legislation in environmental field<br>- the study of internal legislation and regulations in environmental field |
| The identification of significantly environmental aspects associated with proper activities | - emission in air ;<br>- emptying in water ;<br>- administration of waste;<br>- pollution of ground ;<br>- other problems about community and local environmental |
| The identification of impact factors | - separation of activity processes |
| Measure of impact factors | - Knowing of methods and instruments for measuring |
| The identification of estimate criterions of environmental performances, regulation or internal | - regulations inventory<br>- identification of interest parts and them requirements and the sensible impact factors |
| Denomination of the indicators for identification of non-conformities, deviations from proposal objectives | - typology of indicators<br>- method of denomination based on measurements of impact factors and reference values |
| The presentation of panel pictures with the most significant information about development of organization activity | - synthesis with the integration of environmental indicators at organization level |
| Phase 2**: The internal capitalization of the assessing results** | |
| The investigation of deviations causes | - General guide of staring |
| The proposal of corrective actions | |
| The selection of corrective actions | - The assessing of actions |
| The internal communication | - The informing of different levels and functions of the organization; |
| Phase 3:**The external capitalization of the assessing results** | |
| The external communication | - The organization of indicators for answer the asking of interest parts;<br>- The necessity communication with public authority; |
| Phase 4:**The perpetuation of the environmental actions** | |
| The elaboration of environmental project | - The drawing up of enterprise project |
| The implementation of one SMM | - The balance sheet of realized phases in conformity with requirements of ISO 14001 |

## 4. CONCLUSIONS.

The method of Integration of the environmentpolicy inthe management of the company is basedon four phases:

- Phase I: acquisition of knowledge by assessing environmental performances enterprise: identify the impact factors direct or indirect, regulated values regulated or internal, constructing of the deviation markers. Results will be summarized in a dashboard with the impact factors on the level of assessment units
- Phase II: internal research of the first phase operation findings through evaluation an implementation of deviation correction actions: plan of actions.
- Phase III: The external exploitation of the obtained results relying on the previous phase and will respond to the enterprise stakeholders' demand;
- Phase IV: aims the make the enterprises environment actions perennial by developing a comprehensive plan with the support and strong commitment of the enterprise directorateand with the involvement of the whole staff. This last phase in this regard is implementing an EMS.

This method can be used:

- Autonomously directly related to the objectives that the enterprise has established.
- Together with implementation of aEMS
- EMS`s complement, providing means for collecting, monitoring and exploitation of environmental data.

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