

IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT CONCEPT IN ROMANIA

RUSU TIBERIU

¹ *Technical University of Cluj-Napoca*

email: Tiberiu.Rusu@sim.utcluj.ro; savram@yahoo.com

Abstract: The paper presents the evolution of the sustainable developing concept considering global and local fields. It also presents the main actions realized in Romania for the implementation of this concept in to economical and industrial evolution and environment protection.

Keywords: sustainable development

1. THE CONCEPT OF SUSTAINABLE DEVELOPMENT

The technical scientific revolution developed simultaneously with the demographical boom, led to an increase of raw materials, power, food, water necessities. This hunger after power and raw materials emphasized the conflict between humans and nature, giving birth to natural disorders, implying very serious consequences over the environment.

One can assert that the irrational industrial development, excessive urbanization, demographical boom, massive destruction of forests, to enumerate just some of the main reasons, represent permanently a stressful potential with negative impact over the environment.

The first alarm signal, regarding the serious state of the planet ecological system, has been rung within the International Environment Conference in Stockholm, in 1972. As a result of the environment continuous damage, and due to the more dynamic activity of non-governmental environmental-related organizations, especially to the well known **Green Peace**, humankind has began to be more and more conscious of the importance of environmental protection, and also of the fact that these environmental issues cannot be separated from the economical and social activities, which have a direct impact on the life quality.

Under these circumstances, **The World Commission for Environment and Development** has been founded, by the ONU. The role of this commission is to supervise the quality evolution of the environment and to draw the countries attention, in case the activities of the economical agents might endanger the ecological balance of the planet.

The activities of this commission, the pressures of non-governmental organizations over the governments, the continuous damage of the environment have influenced, in a positive way, the scientists, who involved themselves in the environment protection. One of the most important results of the scientists, regarding the environment protection, is the drawing up of a new concept, named the **Concept of Sustainable Development**.

This imposes the achievement of an economical development, in order to ensure the usage of natural resources, found in nature, in huge quantities, the usage with maximum efficiency of conventional power resources, which

use the non-conventional power resources, and, above all, the regenerative resources, simultaneously with the measures taken for environment protection and preservation.

The essence of the **Concept of Sustainable Development** is given by the idea of preserving the existing patrimony for the present and future generations, patrimony consisting in the natural capital, the capital produces by the humans work, and also the existing data of scientific and technical knowledge. It is necessary to understand that the sustainable development implies the involvement of governments in finding optimal solutions, regarding the economical dimension in all fields, in order to discover and apply non-polluting technologies, to develop an ecological agriculture and to protect the environment.

An important role in achieving this concept is held by the economic agents, who must orient their technologies towards the less polluting ones, towards the ones that consume less material resources and power and towards the ones that have a minimum impact over the environment and reduced ecological risks.

Regarding this concept, there are several opinions, on a world scale, some pleading for a stoppage of economical development, because the environment cannot undergo the pollution anymore, others generalize the role of the environment within the economical development; there are opinions which totally ignore the environmental issue, and, of course, there is a middle ground, which pleads for reconciliation between the environment and economical development.

The first report of The Club of Rome, regarding the development of humankind, sustains the idea of non-generalization of the environment role, against the economical development. The same report pleads for reconciliation between the economical development issue and the environment issue, it sustains the idea that this concept of sustainable development must help the human progress not only within some developed countries and for a certain period of time, but also for the whole planet and for a long period of time.

Is necessary to understand that sustainable development must be involved in the concrete reality not just by the concept definition, but also in order to find optimal solutions for economical dimensioning at all levels and in all countries, to apply non-polluting technologies, an ecological agriculture, a rational urbanization, for the environment protection.

The efforts of scientists, especially in the last period of time, the acquired experience show that this concept becomes more and more achievable, as new efficient technologies and materials are discovered. Today, substitutions of raw and power materials are possible, and new sources of raw and power materials are discovered. All these prove that this concept is viable and dirty technologies, nowadays, which pollute the environment, can be replaced by new cleaner technologies, ecologically speaking.

Due to the economical difficulties many countries have encountered, to the major political changes, to acute social problems affecting several countries, this environment protection issue has become of secondary importance, but the very existence of active non-governmental organizations, which are involved in the environment problems, the public opinion pressure over the governments and the decisional parties, will surely situate this environment protection issue in the foreground. Taking this into consideration, one can put a series of questions, which should be answered to by the ones who rule the world. Some of these questions would be:

- What is the most important issue, related to the environment policy?
- Do people know what the cost for environment damage is?
- What is the efficiency of actions taken to keep the quality of the environment?
- What attitude should we take towards the production and storage of waste and how can we take actions to reduce and re-use them?
- What are the most efficient measures in order to reach the main objectives stated within the durable development strategy?

These are only some of the most urgent problems of humankind; if solved, these can ensure a balance between economical development and environment protection.

2. ECONOMICAL RESTRUCTURING OF ROMANIA

The economical restructuring represents, in our opinion, the most important priority for Romania. The restructuring must be regarded in two ways:

- Adaptation of the economic companies to the market economy
- Adaptation of the manufacturing processes to the concept of durable development

The restructuring must be a controlled process, directed by decisional parties (by means of legislative facilities and constraints), within the limits of their obligations and competencies.

Being a process of re-adaptation of the whole economical structure, of creating a new economy based on present and future requirements, the restructuring must be directed and controlled rigorously.

This does not mean rigidity and inflexibility, as some might say, but giving a finality and coherence to the restructuring process, because the spontaneous and anarchic development of the restructuring can lead to considerable losses and give birth to the population's mistrust, concerning the ways of solving the transitional periods.

During the present period of transition, when the economical mechanism, organizational and legislative frame do not belong either to a 'made to order' economy, or to a market economy, the government must have an active role, concerning the economy and must use the instruments specific to this stage. One must understand the difference between the role and responsibility of the government within a certain transitional period and the ones within a stable economy, market-related economy. The extent of the government implication in the economical restructuring depends on the economy realities and the requests specific to the period of time crossed by the country economy.

The restructuring is a multidimensional process, which affects various areas: technological, organizational, economical, legislative, judicial, social, political areas and, of course, the environmental area. It has several interferences with various effects, which might have amplified, limited influences, decreasing within time and space.

In this regard, we underline the top technologies, such as: electronics, telecommunication, optics, informatics, advanced materials and so on, which involve a great deal of scientific knowledge, and, at the same time, they are small consumers of materials, power and water, while their products are in great demand on market.

We should not forget that it is imperative to consider the possibilities of internal and international specialized courses, and the integration within the international labor division. In this respect, it is indispensable the drawing up and application of a coherent, realistic strategy of development and international cooperation of Romania, which should cover more than one governmental mandate.

The economic restructuring of Romania must take into consideration the concept of sustainable development. Within this concept, the measures of energy preservation, optimal management of materials, and introduction of clean technologies must be applied in case of a real economical growth. The main problem of this restructuring is to find the way to introduce these issues on the economical scale, without negative effects over the increase of real incomes of the population. This is a specific problem for Romania, because, technologically speaking, we have a serious gap against other countries. On the same time, the money allocated for research and education is insufficient and it is known that advanced technologies are very expensive, if we wish to obtain licenses for these.

The international implication in the environment issue is the main feature of the new millennium. The degradation of the ozone layer and the greenhouse effect does not take into consideration the national borders; these are global issues, which cannot be avoided by any nation. The developing countries are subjected to the same risk, even to greater risks, regarding the resources shortage and environment degradation, as they do not have the financial resources to solve these kind of problems. The resources or half-finished materials of some of these countries, which need power and materials in huge quantities, products manufactured by means of old technologies, which pollutes the environment, are exported to the rich countries.

Consequently, the responsibility of rich countries to implement the concept of sustainable development is huge. These countries have the financial and technological resources and it is their duty to make efforts to help the poor countries to reduce the gap between them and to increase the qualitative level of life.

3. THE IMPLEMENTATION OF THE CONCEPT IN ROMANIA

For applying in practice of this concept it is necessary a close collaboration between that three main factors: international cooperation, government and industry

- **International cooperation** – for the encouragement of the technological transfer for finding financial resources
- **Government** – for created an appropriate law package
- **Industry** – for applying the new technologies, for using raw materials with low negative impact over the environment, for using the best available technologies (BAT) and finding some alternative energy sources and, at least but not at last, for an integral approaching of the pollution.

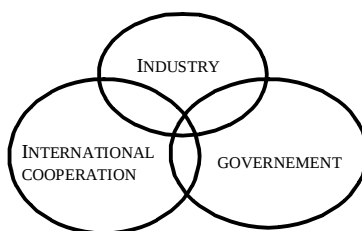


Fig. 1: The main factors of the implementation of the sustainable concept

Romania perform the first activity in this way in 1992 when it was signed “Rio Declaration on Environment and Development” followed then by the signing of the other international agreement about the hazardous and radioactive substances, the regional pollution and the ozonosphere protection.

From the signing of these agreements until the applying it by the industry, one of the most important elements is the government. It must promote the sustainable development by creating an appropriate law package that must contain laws according to the global preoccupations but each of them must consider the geographic, cultural and industrial particularities of Romania.

In this way, even if in 2000 the Romanian legislation in this field was so poor, in 2004 approximately 70-80% of the legislation was aligned to the European Community requirement and these requirements will be completely satisfied until 2007.

For the quantification and comparison the effects of the activities performed in to the sustainable developing concept spirit now is developing an ample program for elaboration of some specific standards: in to the Environment Management Systems – ISO 14001 and EMAS, in to the field of quality of products, services and equipments – SR ISO 9001 and for working security and health – OHSAS 18001 or HACCP for foodstuff quality.

The conclusions of the national researches concerning the environment imposed the partition of the country in regions (called euro-regions) that has approximately the same specifics for simplify and increase the efficiency of the solving problems. In this way was delimited eight euro-regions shown in figure 2.

For each euro-region was performed different kind of analyzes. The most important analyzes was:

- The identification of the natural resources and the protected areas and drawing the specifically maps;
- The distribution of the regional economically and industrial growth;
- The identification of the environment problems and gradate it for each environment element
- The establishing of the local development strategies applied inside of the regional environment programs.

The received data was centralized and analyzed from many points of view. Table 1 presents the analyze from complexity and/or concerning the impact of the socio-economical activities over the environment elements point of view.

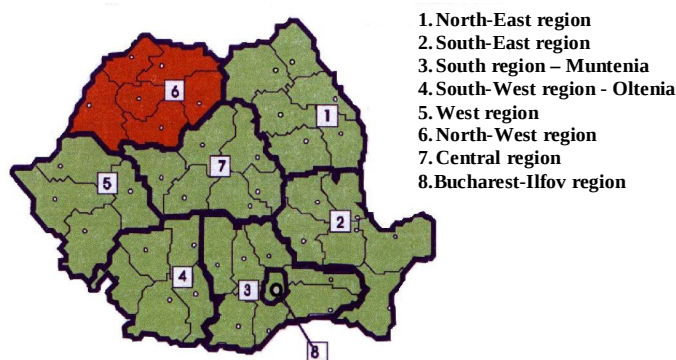


Fig. 2. Delimited euro-regions

The hierarchy of the environment problems in to the Cluj County. Table 1.

The environment problems	
1.	The pollution of the surface water
2.	The waste handling
3.	The atmosphere pollution
4.	The hazardous generate by natural disasters/ phenomena
5.	The urbanization of the environment
6.	The degradation of the natural and artificial environment
7.	The tourism
8.	The poor quality of the drinking water
9.	The ecological education
10.	The soil and underground water pollution
11.	The health insurance

In this causal chain, the industry has a very important playing part because it must applying and developing the procedures, equipments and products that respect this concept and that will be helpful for solving the environment problems.

This transformation is quite difficult because before '90 the environment problems generate by industry, agriculture and transports were not considered necessary to be detailed analyzed and this is the reason why, if it consider the whole country, could be find regions where the ancient pollution is hard and influence the whole area's trophic chain.

In Romania, resolution of the problems generated by pollution and it control are realized by using the best available technologies (BAT) and by increasing the number of companies where are implemented the standards for the environment management systems. For examples, in 2001 were only four companies that have implemented SR ISO 14001 and in 2004 the number of the companies increased to 70, this number does not including the companies where the system was not certified yet.

4. CONCLUSIONS

For could apply in Romania the sustainable development are necessary great efforts on different levels:

- For implementation of the new technologies that decrease the pollution
- A logical utilization of the classical and alternative energy resources
- The monitoring of the all environment elements
- The ecological education on the all level inside the companies and for the people using specific activities and promoting campaigns.

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