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THE PHILOSOPHY OF SUSTAINABLE DEVELOPMENT IN THE STRATEGY OF A LOCAL BUSINESS COMPANY

This article presents the significance of the concept of sustainable development for management systems in industrial companies. The author discusses the theoretical basis and history of the functioning of eco-development in industrial practice. An example of a large Polish food company is presented, including its problems concerning pollution, water consumption etc. Reducing the consumption of raw materials, emissions and other agents is an important factor, not only for lowering costs, but also for achieving eco-development.

1. The essence, conditions and range of applications of the philosophy of sustainable development

The philosophy of sustainable development has its origin in the development of the movement for environmental protection and is evolving along with it.

The growth of interest in issues of environmental control and protection began in the 1950s and was above all related to a growing perception of the symptoms of the global environmental crisis resulting from an increase in environmental pollution on a previously unseen scale. The movement in favour of environmental protection has been growing intensely since the beginning of the 1970s. The degradation of the environment is also related to such effects as the constant globalization and internationalization of economic activities. Although such effects have helped to a large extent in developing mechanisms to prevent the emergence of environmental hazards and to improve the present condition of the environment, they

have also contributed to the emergence of new types of such hazards and to growing pressure on the environment.

A way of preventing various pressures on the environment from arising – at any scale – is to universally implement the principles of the *philosophy of sustainable development*. The philosophy of sustainable development, which is also called lasting or balanced development, deals with all areas of human life and the organization of economic activities. Based on increasing public awareness through education, it can – and ought to – play an important role in creating ecological standards and environmentally orientated models of both manufacturer and consumer behaviour. Given such principles are adopted, the philosophy of sustainable development will contribute to the most important needs of both present and future generations being met. Also, the broad spectre of natural resources and diversity will be preserved.

Sustainable development means a new approach to development, which does not correspond to a narrow understanding of economic growth. The expression “sustainable development” was first introduced during the UNO conference in Stockholm in 1972. One rule of the Stockholm declaration is that: “a human has an indisputable right to freedom, equality and good living conditions in an environment enabling dignity and welfare to be preserved” [see Zicmane, 2004]. After the Stockholm conference, the rights to good living conditions and to a clean environment were included by many countries in their constitution or legislation.

Researchers dealing with various aspects of the functioning of the philosophy of sustainable development define it in various ways. Thus, for instance, Poskrobko [1997, 10] defines sustainable development as a way of running economic activities, controlling and making use of the environment and organizing social life such that a dynamic growth of production is achieved, together with the sustainable use of natural resources and an initially improving quality of life, which is then maintained at a high level. The concept of sustainable development can also be described as a system maintaining balance in the five following spheres:

- the environmental sphere, which requires the appropriate environmental policy;
- the social sphere, which requires the appropriate social policy;
- the economic sphere, which requires the appropriate economic policy promoting economic growth;
- the spatial sphere, which requires the appropriate spatial policy and approach to spatial development;
- the institutional and political sphere, which requires that the rules of sustainable development are respected in politics and management.

Integrated policies should be created and implemented in these five spheres. Lasting and balanced development is one of the objectives of the Polish State. Under Article 5 of the Constitution of the Polish Republic of April 2nd, 1997 it is stated that “the Polish Republic [...] shall ensure environmental protection on the basis of the concept of balanced development” [Konstytucja..., 1997]. The “First Environmental Policy of the State” was drawn up and accepted by the resolution of the Polish parliament of May 10th, 1991. The “Second Environmental Policy of the State” was drawn up in 2000 and accepted by the Polish parliament in 2001 [Polityka ekologiczna..., 2002]. The basis of this new environmental policy is the *concept of balanced development* as stated in the Polish Constitution. This document states the environmental goals to be achieved by 2010 and 2025. Apart from the main concept of balanced development, this policy is also based on other principles, namely:

- the concept of an integrated approach to environmental protection;
- the rule of liquidating pollution at its source;
- the concept of regionalization;
- the rule of equal access to the natural environment with respect to generations, regions and social groups;
- the concept of social justice;
- the concept of subsidiarity;
- the concept of environmental efficiency and economic effectiveness;
- the rule of “the polluter pays”;
- the rule of using the Best Available Techniques – BAT.

An integrated approach to environmental protection requires that consideration of the process of nature protection and reasonable use of its resources are inherent components of an economy. Such an integrated approach means that environmental policy has to be guided by caution when selecting new technologies and in manufacturing new products, so that they are as environmentally friendly as possible. Furthermore, it is necessary to treat environmental protection in a holistic way, with consideration given to global, national, regional and local issues.

The rule of liquidating pollution at its source, also called the prevention rule, requires the undertaking of action in order to prevent pollution and the problems it causes before these hazards arise, or – in the last resort – immediately afterwards. This implies so-called recycling (*i.e.* closing the circulation of material and feedstock; the recovery of energy, water and feedstock from effluents and wastes, as well as utilization of waste, instead of storage) and complete neutralization to be used on a large scale.

The rule of regionalization means the regional differentiation of national tools of environmental policy with respect to three types of area:

- degraded or heavily transformed areas. Areas threatened by degradation can also be included here;
- areas of great natural value;
- other areas.

The rule of equal access to the natural environment can be treated in terms of the rights of generations, regions and social groups. Such an approach requires the willingness of all citizens and of their representatives to participate in both economic and environmental decision processes. In this case, it is essential to extend the rights of local government to participate in defining the bases and range of such processes. It is also important, according to the chief goal of the philosophy of sustainable development, to remember – when making decisions – not to deprive future generations of their opportunity of making use of the wealth of natural resources now existing.

The concept of social justice should be implemented by creating institutional, legal and financial conditions enabling any citizen, social group or non-government organization to participate in forming and implementing the philosophy of sustainable development. Such actions have to be supported by developing education in the field of environmental studies and by promoting ethical behaviour regarding the environment.

The rule of subsidiarity, which has been successfully used in developed countries, means decentralization of decisions on environmental protection to levels “as close to the citizen as possible”, *i.e.* at the level where the situation of local communities is most strongly affected by such decisions.

The concept of environmental efficiency and economic effectiveness requires the calculation of the economic effectiveness of environmentally orientated investments in any investment process, so that the financial expenditure to be borne per unit of effect achieved is minimized.

The rule of “the polluter pays” is implemented by charging polluters, *i.e.* subjects using natural resources, with complete responsibility (both legal and financial) for the results of environmental pollution and causing other environmental hazards.

The rule of using the best available techniques (BAT) necessitates the use of the best presently available manufacturing techniques and technologies, *i.e.* the ones whose use is well justified both from an economic and environmental viewpoint.

The updated version of the “2nd Environmental Policy of the State” is the “Environmental Policy of the State for the period of 2003–2006 with consideration given to the prospects for 2007–2010”, which is now in ef-

fect. This document has been prepared to be introduced in parallel with the negotiations held by Poland on EU accession. The executive legislation to the 2nd Environmental Policy of the State for 2002–2010 is already in effect.

In turn, the amendments to the appropriate legislation on environmental protection are regulated by the Environment Protection Law. It is stated that the main condition for the efficient performance of the state's environmental policy is that the principle of sustainable development is respected in strategies and policies in each area of the economy, *i.e.* when preparing such strategies consideration is given not just to the economic and social targets specific to each sector, but to environmental targets as well. This is true for the power industry, transport, municipal management, civil engineering, agriculture, forestry, tourism and other areas which have an impact on the environment, due to the direct or indirect use of its resources and to generating pollution and/or harmful physical effects.

The recommended method of achieving the targets of environmental policy in the framework of sector policies is to observe "Good Practices of Environmental Economy and Management Systems", which should balance economic and environmental effects.

2. The philosophy of sustainable development at company level

Given the continued internationalization of economic activities, each company – aiming to win clients and to strengthen its position both on the domestic and on international markets – must adapt its operation to the requirements of the philosophy of sustainable development. The principles and methods of implementing this philosophy may be reflected at the company level by the environmental management systems presently being introduced. The notion "company" will be understood as an economically and financially self-dependent entity running an income-generating operation. It should be added that colloquially the notion "firm" is used in this way, though as – understood by the commercial code – firm only means a company name. However, simplifications are frequent in the literature and both definitions are generally interpreted as being synonymous. On the other hand, environmental management may be defined in two ways. According to a general, theoretical understanding, it is the component of a company's management strategy concerning the control of negative impacts on the environment and environmental protection. However, according to a practical understanding, environmental management

is the set of goals, procedures and activities a company uses to minimize its negative effects on the natural environment, while maintaining high production efficiency and acceptable labour conditions.

At present, in a modern company, the requirements of environmental management – and thus of the philosophy of sustainable development – are met by international systems of environmental protection initiated and applied in individual companies. ISO 14000 standards are one such system. The role of environmental management in the overall system of company management is shown in Fig. 1.

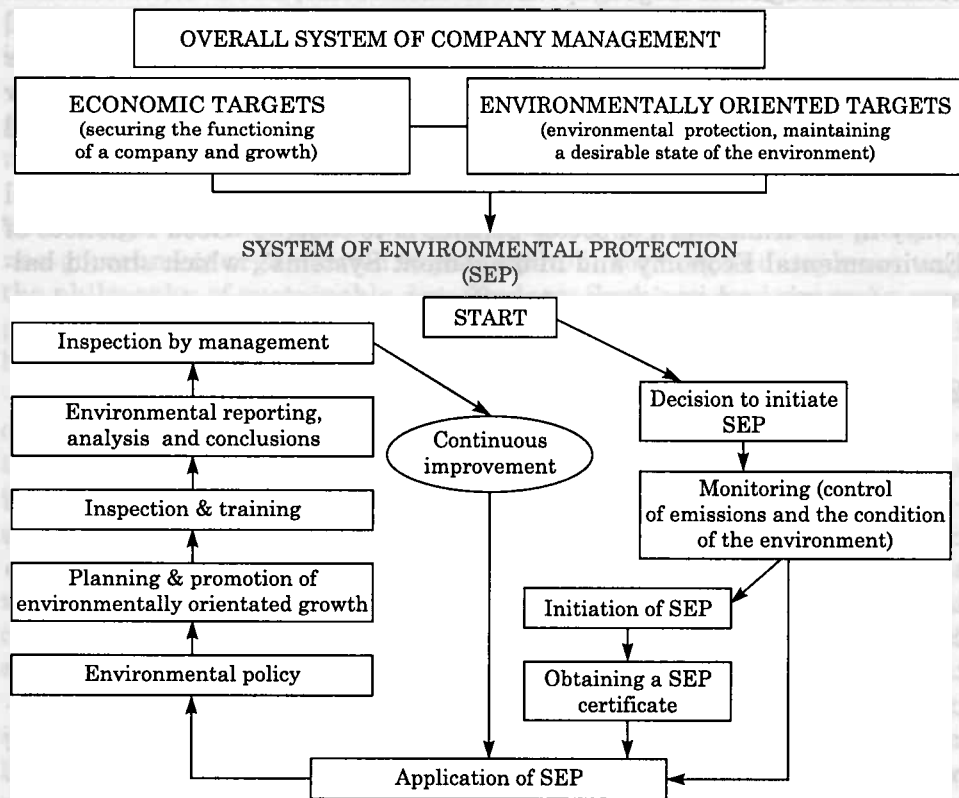


Fig. 1. System of environmental management in a company's management system

Source: Author's own elaboration.

The 14001 ISO standards are international standards for certifying the use of systems of environmental management (the precise title of the Polish version of this international standard is: PN-EN ISO 1400 "Environmental management systems. Specifications and guidelines on

use"). The ISO 14001 standards are environmental management standards published by the International Organization of Standardization in September, 1996. These standards specifies guidelines and procedures for using the overall system of ISO 14000 standards. The EN-ISO 14001 standards can be grouped into two main types of issue, as follows [see Eurlex, 2006]:

1. documenting the activities carried out within a system of environmental management:
 - environmental policy
 - environmental targets and objectives
 - structure and responsibility
 - inspection by management
2. establishing, maintaining and documenting procedures
 - documentation of the running of the system of environmental management
 - operational control
 - results of monitoring
 - failures to comply with the standards, together with descriptions of the corrective and preventive measures taken.

Unlike environmental audits and evaluations of environmental impact, the ISO 14001 standard is an innovative approach to environmental management, since it promotes a process of continuous improvement. In May 2006 the EN-ISO 14001 standards will be substituted by a new version of ISO 14001: 2004. The second edition of ISO 14000 standards was published on Nov. 15, 2004, including the following: a new version of ISO 14001 setting the guidelines and requirements concerning systems of managing environmental protection, as well as the ISO 14004 standard stating general recommendations on rules, systems and support technologies [see BSI, 2004].

3. Application of the philosophy of sustainable development in the strategy of a chosen industrial company

The company under study is one of the biggest in its field – the food industry – operating on the Polish market. It is clearly stated in the company's strategy that the main goal of its operation is to achieve – both in Poland and in Europe – the position of manufacturer and supplier of the best quality products meeting clients' needs and requirements. All processes and short-term activities are based on the best manufacturing

techniques and technologies available on the market (BAT), which enable the company's products to be based on processes meeting the conditions and requirements for sustainable development. A diagram showing the targets and objectives of this company is presented in Fig. 2.

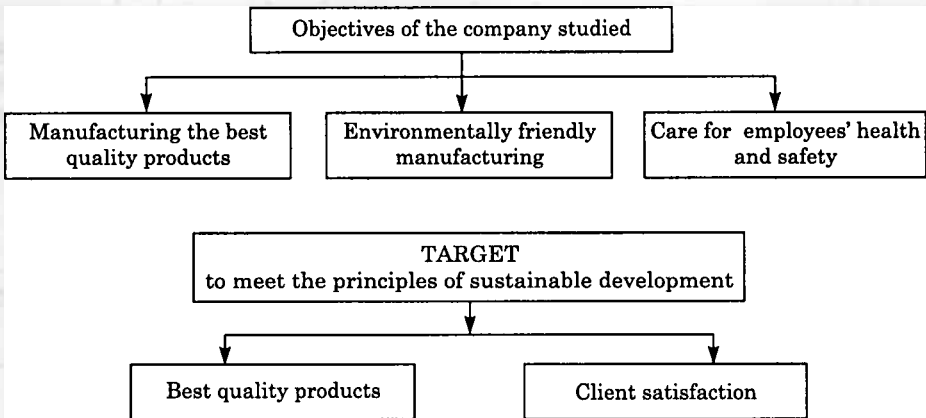


Fig. 2. The objective and targets of the food company under study

Source: Author's own elaboration based on information from the company in question.

Similar to the policies of many modern companies, the studied company recognizes that activities aimed at environmental protection should be deemed to be as important as activities improving operational safety. Thus, the aspiration to get a certificate of compliance with the quality management system (ISO 9000), the environmental management system (ISO 14000), and the occupational safety system (ISO 18000) has become an important part of the company's marketing strategy. On the grounds of its specific operations in the food industry, the company in question is also undertaking efforts to obtain the certificate for a system of managing product health safety, HACCP, which is integrated with the other certificates.

Integration of these management systems are more and more often becoming the aspiration of companies, which is an effect of the so-called process approach to management systems and which results – according to Poskrobko [2003] – in the systems discussed being parts of a system of continuous improvement for introducing lasting and balanced development. The quality management system was implemented in the company under study in 1996. After the appropriate procedures, the system was certified in May 1998 according to the ISO 9001: 1996 standards. In May 2000, the process of introducing the HACCP system (management system for product health safety) and meeting the specifications of

Danish Standard DS 3027: 1997 was initiated. The HACCP system was integrated with the quality assurance system and was certified in May 2001. At the same time, the Quality Management System was re-certified according to the specifications of ISO 9002: 1996 and in May 2002 the management decided to initiate an environmental management system meeting the specifications of the ISO 14001 standards, as well as an occupational safety management system meeting the specifications of the PN 18001 standards and of the international OHSAS 18001 standards. Along with this, the functioning quality assurance system ISO 9001: 1996 was updated to be certified according to the ISO 9001: 2000 standards, while the HACCP system has been updated to meet the specifications of the DS 3027: 2002 standards. All four systems were prepared as an integrated management system of quality, product health safety, the environment and occupational safety. Certification was obtained in September 2003.

The environmental management system, which has been functioning since 2003 within the integrated management system, is now based on the ISO 14001: 2004 standards. In the period of 1991–2003, the level of emissions into the natural environment was greatly reduced. Most of the positive effects, including effects on the environment, were achieved due to complying with the ISO 14000 system of standards.

Fig. 3 shows a clear fall in the amount of water used in production. This is particularly obvious over the period from 1991, *i.e.* the moment the company implemented its integrated management system. Also, Fig. 4 clearly illustrates the great reduction in the emission of pollutants (*i.e.* SO_x, NO_x, CO, dusts, hydrocarbons, effluents and wastes) achieved by the company under study and the resulting huge reduction in the pressure on the natural environment. By 1996, emissions from the company had already been reduced to 50 per cent of the initial level in 1991. Within the next three years, most emissions were reduced by a factor of almost ten.

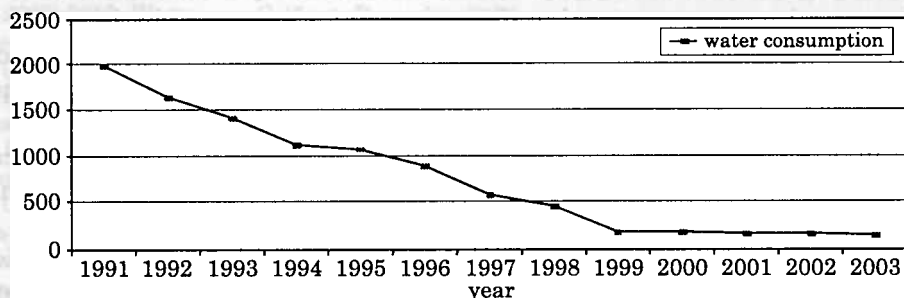


Fig. 3. Water consumption of the food company during production in 1991–2003 (thousand litres/hour)

Source: Author's own elaboration based on information from the company in question.

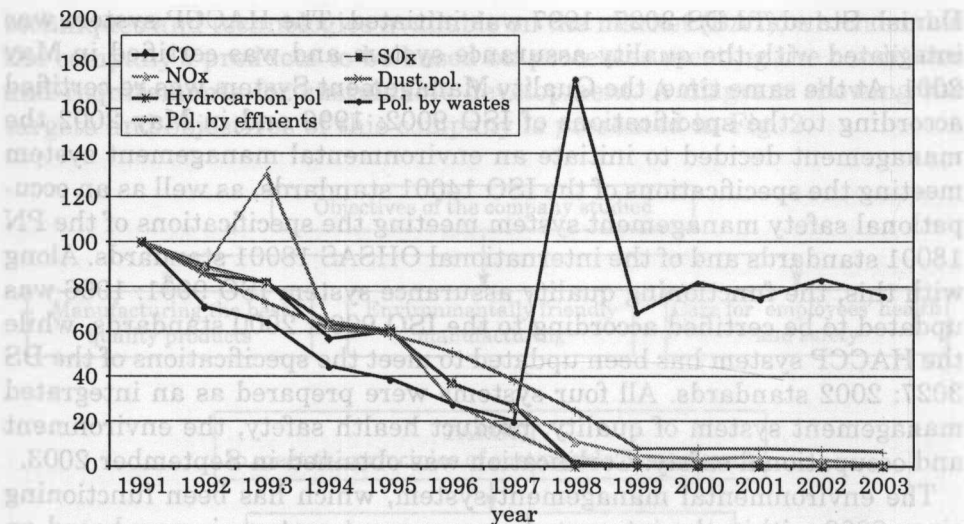


Fig. 4. Dynamic ratios of pollution emissions within 1991–2003 compared to 1991

Source: Author's own elaboration based on information from the company in question.

Thus, it can be stated that the environmentally orientated effects achieved by the company in question are due both to the application of the ISO 14000 system of standards and to earlier attempts at reducing pressure on the environment. The changes made were both organisational and technical.

The food company studied – one of the biggest in the macro region of southern Poland – has achieved significant, positive environmental effects, while – the following obligations have been undertaken within the framework of responsibility for occupational safety and environmental protection:

- meeting the requirements resulting from legislation and legal regulations on occupational safety and environmental protection, as well as other requirements concerning the company and accepted by it;
- matching the requirements placed on services and products and on environmental protection regarding the scale and environmental impact of operations, as well as on hazards to occupational safety;
- manufacturing products using techniques enabling the economical consumption of raw materials, water, power, as well as safe and hygienic methods of working;
- minimizing the risk of accidents in protected areas, as well as avoiding environmental pollution by identifying and preventing existing and potential hazards both to occupational safety and to the environment;
- preventative measures against potentially serious environmental damage and hazards to occupational safety;

- minimizing the use and disposal of water in the cooking, filtration and packaging of products;
- continuous improvements aimed at maintaining and upgrading occupational safety and the condition of the environment;
- enforcing a responsible approach from suppliers and employees, in order to improve the company's systems of managing occupational safety and environmental protection, by making the policy known to all employees, by appointing responsibilities at all management levels, as well as by introducing manuals, system and process procedures and complete training systems, as appropriate.

Such a policy defines goals and objectives in the fields of environmental protection and occupational safety and regular surveys are undertaken to see whether the policy is still fit and proper for the company. This policy is available to the public.

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