

ECO-MANAGEMENT AND AUDIT SCHEME (EMAS) AS AN IMPORTANT ELEMENT OF THE SUSTAINABLE DEVELOPMENT POLICY ON THE EXAMPLE OF POLAND

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Abstract. The idea of sustainable development is a major challenge of the modern world. Therefore, the need to protect natural resources in accordance with the idea of sustainable development is an indisputable issue. The Eco-Management and Audit Scheme (EMAS) can play an important role in this respect. 3.7 thousand organizations have already registered in the EU EMAS register, including, unfortunately, only 72 from Poland, of which almost 40 % from the public sector and 60 % from private sector. The author tries to set out the benefits, resulting for the public and private sector organizations from the implementation of the scheme, but also the barriers and weaknesses of the system, which makes it not very popular in Poland. The results of the author's research carried out in 2016 (May-December) among representatives of EMAS system in Poland were used for this purpose.

Key words: Eco-Management and Audit Scheme (EMAS), sustainable development, management system, environmental protection.

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Introduction

The balance between the economic growth and the need to protect the environment and preserve not-renewable natural resources for future generations has become an important element of contemporary economic policies. Besides the ecologic aspects of economic activities, social and societal effects increasingly receive more attention. EMAS-verified organizations have an excellent foundation for such enhancements - including the expansion from an environmental to a comprehensive sustainability management (Good reasons for EMAS, 2011).

The Treaty of the European Communities, in Article 3 set out: The Union shall establish an internal market. It shall work for the sustainable development of Europe, based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the environment quality. It shall promote scientific and technological progress (Treaty, 2012).

EMAS registered organizations play an important role in the future in the propagation of EMAS system in Poland and EMAS system has a chance to exert an important impact on promoting the sustainable development aspects.

While preparing the article, the author assumed the following objectives:

- to analyse the statistics on the implementation of the EMAS system in public and private sectors' organizations;
- to reveal that public sector entities can also have a significant influence on the environment and on private sector organizations and promote sustainable development;
- to indicate the impact of environmental systems on a continuous increase in the awareness of sustainable development in Poland;
- to present major benefits and barriers that accompany the implementation of EMAS in Poland.

To review the research hypothesis posed and research objectives, the author used the following resources.

a) Primary materials - results of the author's research conducted amongst EMAS registered organizations in Poland. The questionnaire survey was conducted between May and December 2016.

The author has divided 72 organizations registered in Poland into two groups: public sector and private sector organizations. The questionnaire designed and drawn up by the author was sent to the representatives of the EMAS environmental management system, identified in the environmental statements. The questionnaire included 14 questions on EMAS,

including 4 open-ended questions, 10 closed questions (3 alternative questions, 3 disjunctive questions, 4 conjunctive questions), 4 semi-open questions included.

32 organizations, including 19 belonging to the public sector and 13 private sector ones agreed to participate in the study.

b) Secondary materials, which include: the statistics available under the Community EMAS register, the register kept by the General Directorate for Environmental Protection, Environmental declarations of EMAS registered organizations and sites, literature on the subject matter.

Research results and discussion

The European Commission enacted the so-called EC Eco-Audit Regulation in 1993 with focus on the manufacturing industry. Thus, EMAS the first European certifiable environmental management scheme - was born. In 2001, EMAS was revised to integrate ISO 14001 and to allow participation by all economic sectors. The focal point of the revision in 2010 was administrative relief for small and medium-sized enterprises. Furthermore, the revision made it possible for sites outside the EU to participate (Good reasons for EMAS, 2011, Myszczyzyn, 2010).

With regard to the ISO 14001 environmental management system, EMAS adds four elements:

- constant improvement of pro-environmental action by the necessity to renew the registration, to update the environmental statement and a continuous setting out of new environmental objectives;
- compliance with the legislation on the environmental protection guaranteed by the participation of government authorities in the system;
- universal access of public opinion through open publications of environmental statements, environmental reports;
- involvement of organizations' employees and management (Myszczyzyn, 2010).

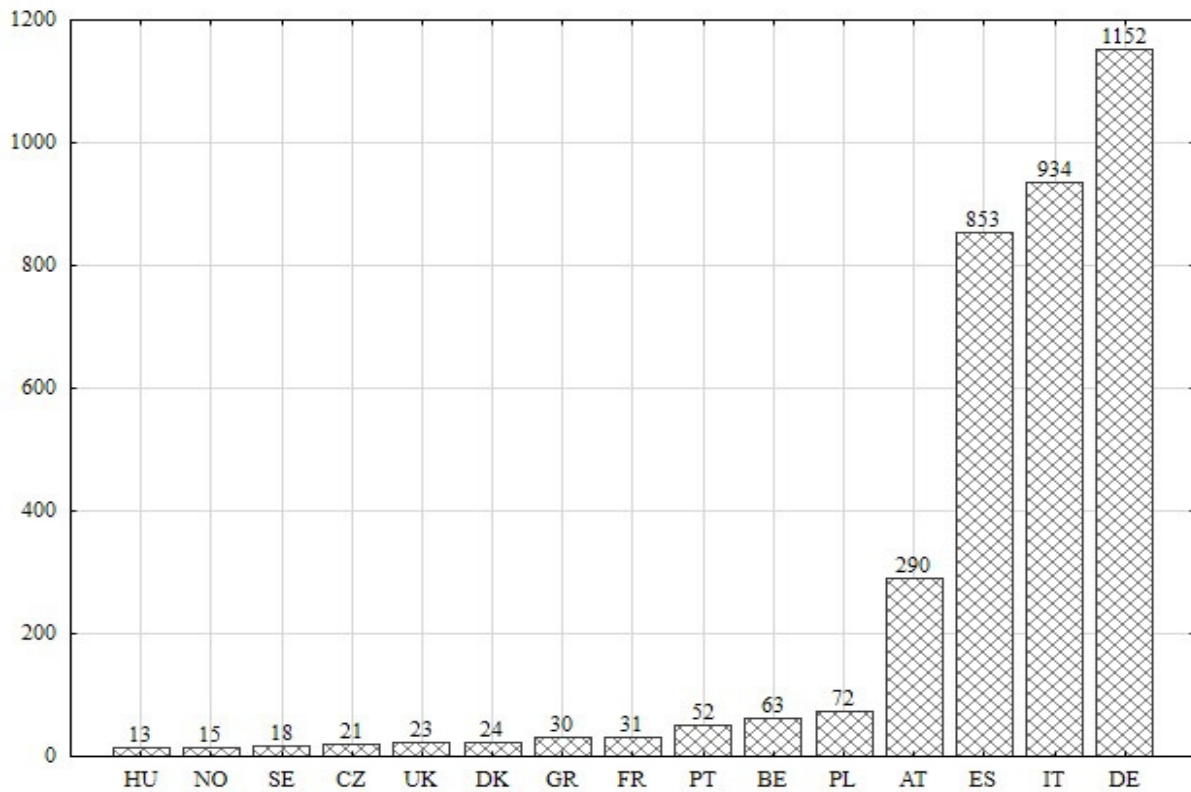
Actually, the participation in EMAS scheme is free and open to all kinds of organizations. It is assumed that EMAS shall be made available to all organizations, in and outside the Community, whose activities have an impact on the environment. EMAS shall provide these organizations with the measures to manage that impact and to improve their overall environmental performance (Regulation (EC) No 1221/2009).

Organizations, intending to be EMAS registered, among other things, must conduct an environmental review, implement an effective environmental management system, carry out an internal environmental audit, prepare an environmental statement, describing both the environmental management system and the environmental performance results (Act of 15 July 2011, Regulation of the Minister of the Environment of 1 February 2012, Regulation of the Minister of Environment of 23 March 2012).

As of 13th October 2016, the EU EMAS register included 3,701 registered organizations, of which 11,230 sites. In Poland, the system registered 72 organizations and 358 sites. It is only 1.8 organizations per 1 million residents (Sustainable, 2015). This constitutes a well visible improvement compared to the 17 organizations registered by the end of April 2009, but still, there is an enormous gap between us and Germany, Italy, Spain (Myszczyzyn, 2010) (Fig. 1).

A list of organizations, operating in Poland and tested by the author and those EMAS registered by sections of national economy is shown below (Fig. 2).

The following sections are most strongly represented in EMAS: section E organizations prevail (remediation and other services related to waste management - 21 organizations), together with those of section O (public administration and defence, compulsory social security - 19 organizations) and section C of industrial manufacturing -15 organizations).



Source: Author's calculations based on data www.emas.gov.pl (30.12.2016)

Fig. 1. The number of registered organizations in the EMAS system in selected countries (01.12.2016.r.)

No organizations of the following sections have been registered: A - agriculture, shooting and forestry, G- wholesale trade, except for motor vehicles, P - education.

The organizations tested by the author represented sections: O (14 organizations), E (7 organizations), C (5 organizations), D (3 organizations), K (1 organization), H (1 organization), Q (1 organization).

The author has conducted his own survey of 19 public sector organizations, listing the main environmental objectives laid down in the environmental statements of the public sector organizations, which, among other things, emphasized the environmental mission. This mission is particularly important in view of promoting practices in the field of sustainable public procurement, encouraging to create and promote effective public and public-private partnership as well as involving civil society built

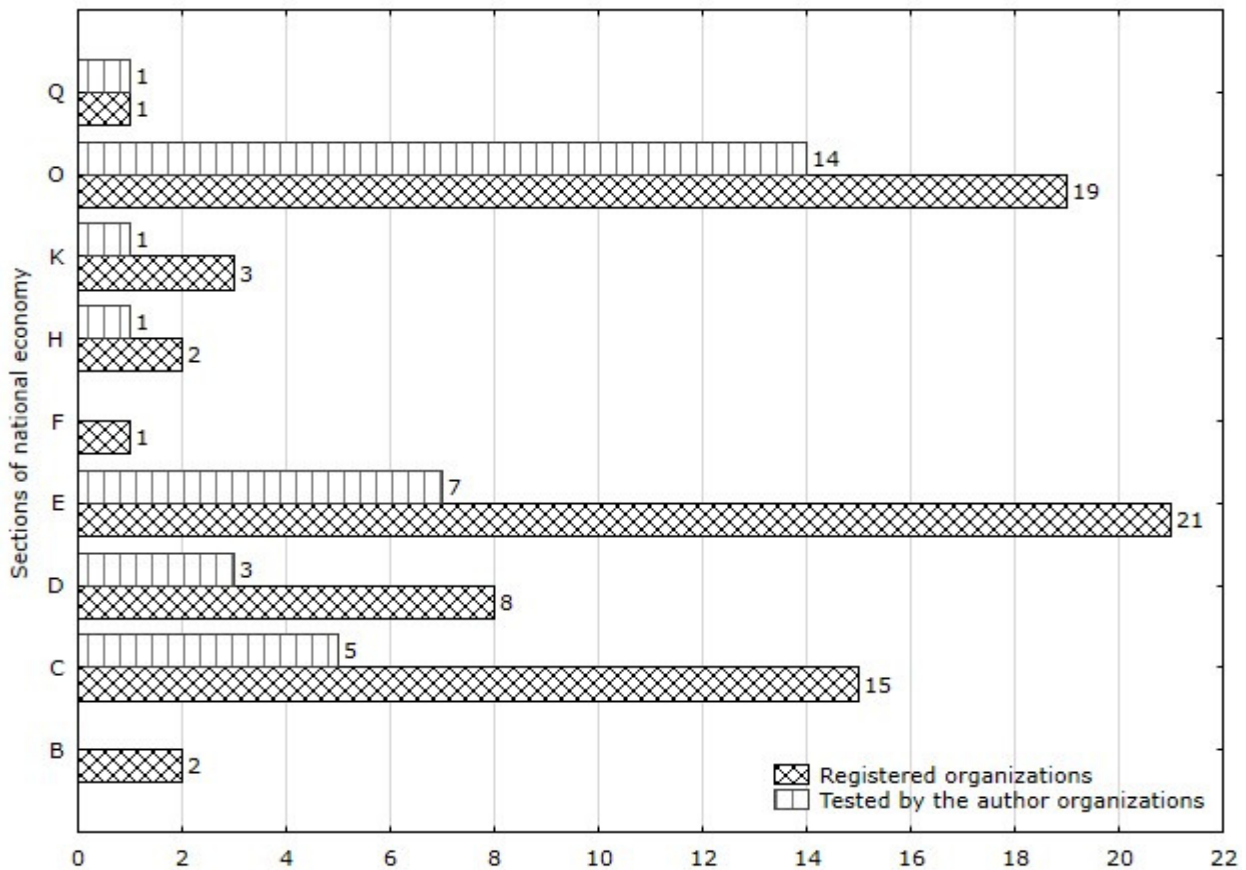
on experience and sourcing strategies in partnership (Rezolucja, 2015).

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Public sector organizations registered in EMAS and under the author's survey focused, among other things, on:

- rational use of water resources, water and wastewater management included;



Source: Author's calculations based on data www.emas.gov.pl (15.11.2016)

Fig. 2. Organizations registered and tested by author in the EMAS in Poland by sections of national economy (31.12.2016 r.)

- air protection, noise reduction;
- working place environment protection;
- ensuring effective and stable protection of reserves and monuments of nature;
- prevention of hazards to the environment, resulting from the activities of the environment users;
- exerting influence on society, with reference to the need to protect endangered species of animals and plants;
- shaping appropriate approach of employees aimed at reducing the consumption of electricity, water, paper;
- ensuring access to the environmental information to the public;
- continuous improvement of environmental performance contained in environmental statements (Myszczyzyn 2017).

An important goal is an active participation of employees in the implementation of specific tasks related to environmental protection. This is

manifested through participation in training, certification, preparation of environmental statements, the current functioning of the company as well as improved working conditions (e.g. by reducing hazardous factors such as noise).

The respondents, public sector organizations indicated the following main benefits of the introduction of EMAS:

- increased awareness of the need for action in the field of environmental protection (15 replies);
- continuous improvement, and by the same, an impact on the sustainable development of the country and the world (14 replies);
- other: increased awareness of employees on the impact they may have on the environment, minimizing consumption of resources, among other things, of paper (printing, copying), water, electricity and heat etc., the impact on other organizations,

including suppliers and customers (applicants included). EMAS scheme representatives, responding to the questionnaire could not see direct economic and financial benefits, arising from the introduction of EMAS, improvement in employees working conditions, increased competitiveness.

The private sector in Poland is represented largely by the company of three sections: C (Manufacturing), D (Electricity, gas, steam and air conditioning supply) and E (Water supply; sewerage, waste management and remediation activities) (nearly 90 % of implementations).

The respondents of private sector organizations (13 organizations) indicated the following main benefits of the introduction of EMAS:

- increased awareness of the need for action in the field of environmental protection (12 replies);
- continuous improvement, and by the same, an impact on the sustainable development of the country and the world (12 replies);
- improving the image and relations with stakeholders (12 replies);
- economic and financial benefits, impact on the network of suppliers and customers, more competitive organization.

The following financial benefits were underlined, among other things:

- exemption from excise duty (coal);
- reduced waste and costs associated with its management and disposal;
- reduced quantity of raw materials consumed when using new, more efficient and more environment-friendly technologies;
- reduced pollution (greenhouse gas and dust emission along with dirty water discharge), which led to an increase in economic efficiency, but often required capital expenditures being incurred;
- lack or reduced fines paid for environmental pollution; prestige in the external environment, better (ecological) product;

- better living conditions ensured to those around, including the local community in the region.

Respondents indicated that despite measurable benefits, EMAS scheme also has weaknesses which include:

- the necessity to set out, document and verify subsequent environmental objectives, which means extra costs and, in the case of large environmental goals, it may be difficult to put them into life;
- the need to develop regular environmental reports, which require the involvement of staff and management, and which may interfere with the on-going activities of the organization;
- laying down of further environmental goals, which in the case of public sector organizations, in the absence of a comprehensive pro-ecological policy of the state, can become a challenge;
- no measurable effects in terms, if only, of limiting additional inspections related to environmental protection on behalf of state authorities;
- no amenities with respect to grants for direct investments into environmental protection;
- no tax relief nor other benefits, e.g. in tender procedures, applications for EU funds;
- poor promotion of the EMAS logo in Poland, in many cases unknown by other organizations and citizens.

The private sector respondents pointed out that competing companies can easily get access to business information, which they claimed to be a threat.

When asked about the main reasons for the implementation of EMAS in their organizations (public and private sectors), the respondents indicated:

- that it was necessary to have continuous improvement of their environmental performance, the achievement of the next

stage in this sphere included, as they had introduced ISO 14001 system earlier;

- increased prestige of the organization, the promotion of environmental protection in the external environment included;
- increased involvement of employees in achieving environmental objectives;
- promotion of the idea of green management office;
- instruction of the superior authority.

The above analysis taken into account, the author positively concludes that the implementation of environmental management systems, EMAS included, increases the awareness of organizations, institutions, their management and employees as well as society that the care about environment is needed to contribute to the promotion and implementation of the idea of sustainable development (Myszczyzyn 2009). In addition, in their construction, environmental management systems use the achievements in the field of quality management, manifested, if only, in the continuous improvement of the system.

As suggested by numerous authors, the implementation of EMAS has an impact on the external and internal benefits gained, on suppliers, customers included (Strachan, Haque, McCulloch, Moxen 1997; Hillary 2004; White, Lomax 2010; White, Lomax, Parry 2014). However, the costs of investments in the area of environment may sometimes exceed the short term revenues, but the long term financial benefits, the environmental ones included can be significant. Well-spread use of respective tools to evaluate environmental aspects within the idea of sustained development is equally important (see: Gecevska, Donev, Polenakovik, 2016).

Conclusions, proposals, recommendations

1) with a person in implementation of one's business activities, keeps interfering with natural environment and makes up a permanent threat for plants, animals and

microorganisms, surrounding him/her along with the atmosphere. By the same, this person worsens one's own life environment. As a consequence of the above, the implementation of the EMAS (Eco-Management and Audit Scheme) is a chance to put into life the sustainable development guidelines. This can also be a chance to the organizations which already have ISO 14001 environment management system, to improve their further environmental actions within EMAS.

- 2) As shown by the study, in the opinion of the majority of respondents, regardless of the sector, the EMAS system rather has not contributed directly to an increase in the competitiveness of the organization. However, the need to set new environmental objectives and to improve the system, the drawing up further environmental statements had an indirect influence on the increase in innovativeness and contributed to confidence in the environs of the organization, to the involvement of employees, the boards included. EMAS has a largely indirect influence and increases the environmental innovation potential of the facility.
- 3) The assumptions of the EMAS scheme of continuous improvement and verification of targets along with laying down new ones make up difficulties to the organizations already registered and a barrier to potentially interested new candidates.
- 4) Viewed from the perspective of a few years back, the involvement and participation in the system of key organizations responsible for the generation and implementation of environment protection policy such as the Ministry of Environment and Regional Directorates of Environment Protection shall be evaluated positively.
- 5) The involvement of public entities is a signal to other organizations to try to make their employees and society aware that each of

them independently of the ownership form and character of business can have an impact on the pro-ecological behaviour. The engagement of public organizations allows to believe that in the future they may involve a greater participation of SMEs, farmers and food economy environment. Although the number of EMAS implementations has been growing, the agricultural sector in Poland is still without a representative. Unfortunately, as Dacko indicates, this sector for the time

being resists most effectively the tendencies to implement any environmental management system, the EMAS included (Dacko, 2013).

- 6) The issue of society education remains still a sine qua non matter, which needs drawing up a respective syllabus, preparation of mass media, the Internet, and an active participation of schools, universities and public organizations so as to promote pro-ecological conduct.

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