# ENVIRONMENTAL ACCOUNTING AS AN EXPRESSION OF IMPLEMENTATION OF CORPORATE SOCIAL RESPONSIBILITY CONCEPT

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**Abstract:**
One of the symptoms of the implementation of corporate social responsibility concept is taking into account environmental and social issues in business. It arises also, to some extent, from the environmental law regulations and the national and international strategies focus on the proecological development. The environmental (green) accounting was created as a result of the demand for information on the interactions between the enterprise and the environment.

Purpose: The aim of this paper is to: 1) the identification of requirements, which are subject companies, both in the light of environmental law as well as customary (in the so-called good practice) in relation to the impact of their activities on the environment, and 2) determine the impact of these requirements on the development of accounting system. In addition, the thesis of improper reporting obligations for environmental reporting by Polish entities will be subject to verification.

Methods: Objective methods used in the paper are: 1) the review of national and international literature and 2) case study (reports of one company of the chemical industry have been examined and compared with the results of studies conducted by other authors on the Polish sector of chemical companies). Main conclusions will be drawn using scenario of deductive methods.

Conclusions and findings: Generally accepted and globally accepted environmental reporting standards are essential to prepare. Thus, the proper assessment of the environmental impact of the business activity and achieving comparability over time and space (between different economic units) will be possible. The adaptation of an accounting system, both financial and management, is forced by environmental reporting requirements.

Future research: The question of the limits of the information content of the business report is opened: perhabs too detailed and broad information are misleading? will the lean accounting conception affect on the environmental reporting?

Keywords: *green accounting, environmental reporting, accounting of social responsibility, sustainability accounting*

# 1. INTRODUCTION

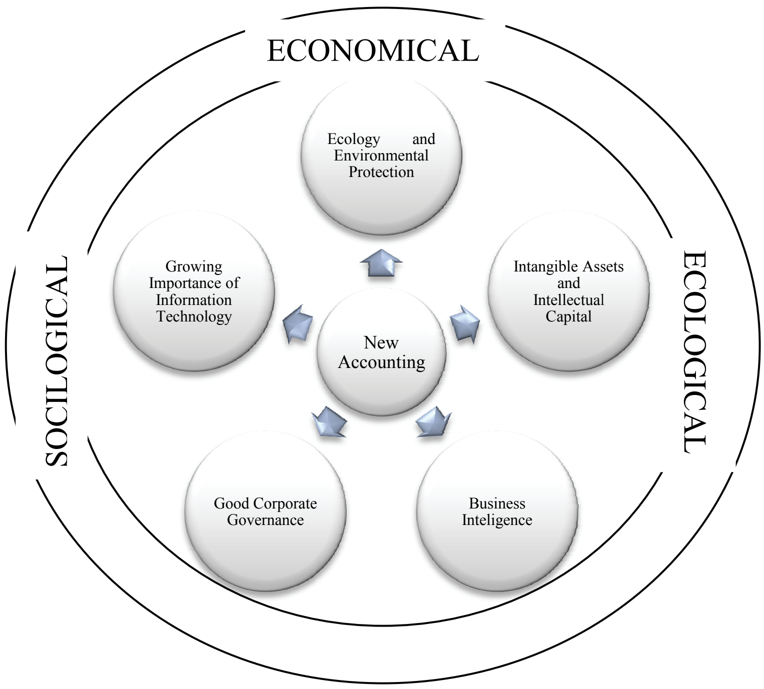
*Corporate social responsibility* (CSR) is a concept in which businesses are expected to take into account a wide array of social interests, and expenditure on human resources and environmental protection is not treated as a cost but as capital expenditure and a source of innovation.

The growing influence of CSR on the development of accounting, both financial and management has been visible since the 1970s, when companies in the USA were accused of causing social problems and called to find solutions to them (Griffin, 2002, p. 145; Gholami et al., 2012, pp. 10111-10112). It was then that a new branch of accounting – CSR accounting – was born, and a series of model solutions were worked out in the fields of external and internal reporting so that all relevant parties could get the information on the social outcomes of a given company's economic activities. The crux of CSR accounting is the responsibility to present an account of the activities a company is held responsible for, which means that this is not just about taking up (or neglecting) certain activities, but also about providing a statement on those activities (Gray et al., 1996, p. 38).

In the face of the increasing deleterious effects of environmental pollution, an increased importance is ascribed not only to the financial aspects (profitability) of management, but also to its environmental and social impact. Simultaneously, the contemporary understanding of CSR is extremely broad and it covers responsibility towards employees, the local community, society as a whole, and even future generations (Szychta, 2007, p. 104).

In addition, accounting in recent years is the challenge of meeting the demands of the knowledge economy, which generates the relationship between different research areas (accounting versus ecology, business intelligence and corporate governance). For these reasons Corporate reporting had to be a significant transformation. The conditions of these changes are shown in Figure 1.

**Figure 1:** The fields of CRS and new accounting prerequisite




Source: Own work on the basis: Radneantu, 2010, p. 308.

CSR accounting, along with the advancement of the sustainable development concept[1] towards environmental protection and restitution, has clearly steered in the direction of environmental issues, and the co-dependence between economic entities and the natural environment has become an important subject of investigation. A business and its environment mutually influence each other. The

[1] Sustainable development consists of running business activities, by using the potential of the natural environment and organising social life in such a way that ensures the growth of qualitatively new production processes, the sustainability of natural resources and improved quality of life.

business impacts the environment with its activities, but the environment also creates the conditions for the business's operation and growth. This results in a need to take into account the relationship between the entity and its environment in the information system of a business.

## 2. GREEN ACCOUNTING – THE CONCEPT AND OBJECTIVES

The basic source of economic information in a business is accounting. The informative function of accounting means that it serves the information needs of various groups of users. Although the fundamental concepts, rules and principles of accounting have remained unchanged for years, its scope has been evolving along with the changes in the environment. The demand for environmental information on the part of external and internal recipients has contributed to the development of a concept called "green accounting", "environmental accounting", "eco-accounting", and even "sustainability accounting" (Szychta, 2007, p. 105)[2].

The term "environmental accounting" was first used by R. Grey et al. (Famielec, Stępień, 2005, p. 18). Gray, Bebbington and Walters define environmental accounting as »a management tool addressing all areas of accounting that may be affected by the response of business organizations to environmental issues, including the new area of eco-accounting« (Stanciu et al., 2011, pp. 268-269). Another definition was suggested by the Public Accounts and Estimates Committee, which defined it as a process, which provides information on the environment and the impact of human activity on the environment that is useful in making appropriate decisions at various levels of management. It is also an expression of the monetary and non-financial activities of an entity with regard to the environment (PAEC, 2002, March, p. 5).

The term "environmental accounting" is ambiguous, and can be used in various contexts (see: IFAC, 2005, August, pp. 13-14). The wide extent of environmental accounting and its focus on both external and internal users provides a basis to divide it into:
- environmental financial accounting,
- environmental management accounting.

Environmental financial accounting provides general-purpose financial information on the organisation, for external users, such as creditors, potential investors, and shareholders (PAEC, 2002, March, p. 6). Environmental management accounting, in turn, is a set of methods and techniques which can be used to collect and provide information for management in the area of the business's mutual relationship with the environment (Debnath et al., 2011, p. 45).
The principal objectives of environmental accounting include (Stępień, 2008, p. 377):
- to create a financial and non-financial information system for the management and monitoring of environmental protection,
- to formulate commonly accepted reporting standards for environmental protection, specifying the principles for measurement, comparative criteria, and recommended policy,
- to provide courses of action and systems to generate value from environmental management, including environmental protection.

## 3. SOURCES OF ENVIRONMENTAL STATEMENTS

The requirements set before companies with regard to environmental reporting are imposed by various types of stakeholders. These can be divided into two groups (Szychta, 2007, p. 104):

a) legal sources – both national and international legislation (Acts, national regulations, EU Directives, international agreements such as the Kyoto Protocol),
b) market sources – imposed by clients (requiring products to fulfil environmental standards), competition (who perform better in environmental protection), investors and creditors (awaiting information about the achieved and planned environmental objectives).

The extent of information resulting from legal environmental requirements is relatively broad. This is why there is a purposeful division into obligatory and voluntary information. In Poland, the obligatory nature is provided for by such regulations as the Act on Environmental Protection Law (Journal of Laws of 2001, No. 62, item 627), Act on Waste (Journal of Laws of 2001, No. 62, item 628), Act on

[2] A more detailed account of the factors that led to the emergence of environmental accounting, see: Jones, 2010, pp. 123-138.

Geological and Mining Law (Journal of Laws of 2005, No. 228, item 1947), Act on Public Statistics (Journal of Laws of 2009, No. 18, item 97), Directive No. 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community, as well as many other Acts, including the Constitution of the Republic of Poland, which states that "Everyone shall have the right to be informed of the quality of the environment and its protection." (Art. 74, par. 3). As regards voluntary information, it is regulated, e.g. by Directive No. 99/32/EC relating to a reduction in the sulphur content of certain liquid fuels.[3]

The market sources include various reports resulting from voluntary instruments of environmental management. Due to the non-obligatory nature of such disclosures, at first, very few statements were published, and these primarily by companies in the most burdensome sectors. As the environmental awareness of societies is growing, the number of companies publishing such reports is also increasing, with these being presented in a variety of forms and scopes in various countries and regions of the world.

To ensure the transparency of CSR activities (including environmental activities), efforts were made to define the reporting standards, which resulted in working out numerous guidelines. The most popular standards connected with environmental reporting include SRG, ISO 14000, ISO 26000, AA 1000.
SRG *(Sustainability Reporting Guidelines)* was introduced and has been developed ever since by the *Global Reporting Initiative* (GRI), an international non-profit organisation established in 1997, in the USA. The guidelines devised by GRI are the most popular reporting standard and are compatible with other CSR standards (ISO 26000, Communication on Progress). The GRI guidelines facilitate the development of a reporting system within the company, because they include a set of principles regarding the content, its quality and scope of reporting, and they present a methodology of selecting the relevant issues that should be included in the report. These guidelines are commonly available and cover a set of universal and industry indices. They allow the stakeholders to compare a company with other organisations and observe its progress (Anam, 2011).

The ISO 14000 series of standards, devised by the non-governmental International Organisation for Standardisation, is meant to facilitate the preparation, implementation, and management of various aspects of a given business's environmental policy. The most popular are the 14001 and 14004 standards (other ISO 14000 standards relate to detailed environmental aspects, such as analysing the life-cycle, communications, and control). The ISO 14001 standard was published in 1996 as the successor of BS 7750 (the first global environmental management standard published in 1992, by the British Standards Institution). It is used to implement the Environmental Management System based on a so-called process-based approach. The standard includes: general requirements; directives in the field of environmental protection; information on implementation planning and other activities; information regarding control and repair operations; and a review of management techniques. It puts emphasis on two elements: the commitment to constantly improve and the commitment to comply with the legal regulations in force. The ISO 14004 standard includes guidelines for the preparation and implementation of systems and principles for environmental management and their coordination with other management systems. Also the guidelines of this standard are meant to be used optionally as an internal management tool (http://www.iso.org). In Poland, about 1,700 organisations meet the ISO 14001 standard (http://www.mos.gov.pl..., point 2.3.1.).

The AccountAbility standard (AA 1000) was developed in 1999 by the Institute of Social and Ethical AccountAbility (United Kingdom). It is composed of three standards assisting an entity in managing its operations on the economic, environmental, and social levels:

1) AccountAbility Principles Standard (AA 1000 APS) – sets the optimal framework (policy) of managing stakeholders;
2) Stakeholder Engagement Standard (AA 1000 SES) – a typical instrumental standard defining how to engage stakeholders;
3) Assurance Standard (AA 1000 AS) – facilitates verification to ensure the reliability of the implemented activities and the sustainable development report. AA1000AS is currently one of the most popular standards for verifying sustainability statements (http://www.accountability.org...).

In EU Member States, an important reason for the intensification of environmental reporting is EMAS (Eco-Management and Audit Scheme). This environmental management system was introduced into

[3] A listing of sources for the environmental protection law in Poland, see: Ferens, 2011, pp. 87-89.

the legal system of the European Union, by Regulation No. 761/2001 of the European Parliament and of the Council of 19 March 2001, allowing voluntary participation by organisations in a Community eco-management and audit scheme (EMAS). EMAS is to motivate various organisations (businesses, institutions) to constantly improve the results of their environmental activities. It is a kind of a trademark that certifies an organisation's pursuit of excellence. The fundamental principle of the EMAS is to notice and recognise those organisations which voluntarily exceed the fundamental requirements specified by law, and which constantly strive to achieve as good results of environmental activities as possible (http://www.emas-polska.pl...).

In Poland, the EMAS system was introduced by the Act of 12 March 2004 on the national eco-management and audit scheme (Journal of Laws No. 70, item 631). The first Polish organisation was registered in the system in 2005, but the scheme is still not widely known in this country, and hence, in the document of the Ministry of the Environment of the Republic of Poland entitled: "State Environmental Policy in 2009-2012 with a view to 2016", the primary mid-term objective until 2016 was: "as wide as possible participation in the EMAS, the dissemination of knowledge about the system among society, and creating economic benefits for companies and institutions in the system" (http://www.mos.gov.pl..., point 2.3.2.).

On the other hand, membership in The Polish Cleaner Production Programme (until 1998, the Polish Cleaner Production Movement) is fairly popular in Poland: the Polish Register of Cleaner Production and Responsible Entrepreneurship contains 79 companies (as at May 2012), and the Clean Production Certificates have been issued to 248 companies (since the Register was established in 1996). Developed on the basis of the Clean Production strategy, the Environmental Management System is seen by many companies as the first step to implement an ISO 14001-based system or EMAS system (http://www.programcp.org.pl/polpcp.htm).

The environmental reporting requirements in the EU are also dedicated to individual industries. On 1 June 2007, Regulation No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) came into force. It imposed special obligations on those entities which produce, import, and market or use chemical substances, which are to prevent the adverse impact of those substances on human health and the environment. The format of chemical safety reports is specified in Annex I to REACH, and contains such items as the identity of the substance and its physical and chemical properties, human health hazard assessment (toxicokinetics, irritation, corrosivity, sensitisation, carcinogenicity, toxicity for reproduction), human health hazard assessment of physicochemical properties (explosivity, flammability, oxidising potential), environmental hazard assessment (aquatic, terrestrial, atmospheric), and PBT and vPvB assessment (persistence and bioaccumulation).

Among the Polish chemical industry companies (the subject of the study operates in this sector), the programme "Responsibility and care" enjoys some popularity. It was conceived in Canada, in 1984, from where, through the USA, it reached Western Europe, to be adopted by the Brussels-based European Chemical Industry Council as the centre for its promotion and coordination. The implementation of the programme was one of the conditions for the Polish chemical industry to become a member of European structures. The implementation of the programme in Poland is directly supervised by the Polish Chamber of Chemical Industry. After 20 years of its implementation (1992), it has been signed by 34 companies. One of the programme's principles is the formal obligation of a business to constantly improve its operations in all aspects, and particularly in environmental protection, process safety and health protection (http://www.rc.com.pl...).

Apart from the above environmental reporting standards, we should also mention PERI (*Public Environmental Reporting Initiative*) and CERES (*Coalition for Environmentally Responsible Economies*) as the best-known forms of environmental reporting in North America (Emtairah, 2002, p. 10). A more extensive list of guidelines and standards regarding environmental reporting in various regions of the world can be found on 'International Corporate Environmental Site Reporting' (http://www.enviroreporting.com).

## 4. ENVIRONMENTAL PROTECTION AND REPORTING

An analysis of the above-mentioned environmental reporting sources (and, broadly speaking, corporate social responsibility) shows that there is a certain amount of information that entities are

obliged to provide. However, those entities which focus on responsibility and sustainable development in their strategies and operations also voluntarily share information about their relationship with the environment, being aware of the potential advantages of such disclosures.
Environmental reporting can therefore be performed in the form of:
- presenting selected information on environmental issues in financial statements and reports on operations – pursuant to the balance-sheet law or other "environmental" legal acts,
- listings/reports which are obligatory pursuant to other regulations than the provisions of balance-sheet law (e.g. regulations on national statistics or environmental protection),
- voluntary reports on environmental impact, called *Corporate Environmental Reports* (CER).

The balance-sheet law regulations in force in Poland – whose primary source is the Act on Accounting of 29 September 1994, hereinafter AA (Journal of Laws of 2009, No. 152, item 1223, as amended), are selective about environmental issues. These regulations require additional information to be provided on expenditure on non-financial fixed assets relating to environmental protection, while expenditure made in the previous year and those planned for the following year are to be listed separately (Annex 1, AA).

In the report on operations appended to the financial statement (if the regulations require it), relevant information about the property and financial situation must be provided, while information concerning the environment does not follow directly from the regulations, but should be found in provisions specified in Art. 49 AA. The exception is the provision that a statement shall include "provided that it is relevant for the evaluation of the entity's status – financial and non-financial indices concerning environmental issues and employment (…)" (Art. 49 par. 3 AA). Among other information regarding environmental aspects, the general provisions of Art. 49 also provide that it is necessary to list information regarding the modernisation of produced goods in terms of its impact on the environment, the costs of environmental protection projects, as well as the sanctions and fines that could be imposed on the entity in connection with environmental protection, etc. (Ferens, 2011, p. 94).

A financial statement may also list other information on the entity's relationship with the environment, although the Act on Accounting does not necessitate its inclusion. The balance sheet can contain property items such as intangible environmental assets, fixed assets engaged in environmental protection activities (fulfilling the requirements to list them in this property group), elements of long- and short-term investments and provisions for environmental protection. In the liabilities column of the balance sheet, these can be provisions for environmental risks (such as provisions for fines or costs of repairing damage cause as a result of the entity's environmental impact on the environment, particularly if such entity is customarily or legally obliged to repair such damage).

The obligation to list specific environmental information in a financial statement can also result from other regulations than balance-sheet law (which are discussed in section 3). For example, power companies are required by law to list in the introduction to the financial statement (part of additional information), the rules of listing and appraising property rights on certificates of origin, and also to provide detailed information in this respect in additional explanation. Moreover, companies which are covered by the Act on greenhouse gas and other substances emission allowances trading (Journal of Laws No. 281, item 2784) are required to describe the principles adopted in listing and appraising the greenhouse gas emission allowances and to include detailed information in the explanation.

These International Accounting and Financial Reporting Standards, similar to the Act on Accounting, approach environmental issues selectively:
1) IAS 16 mentions fixed assets for environmental protection; although they do not directly influence the increase of future economic benefits connected with any specific item of tangible fixed assets, because they are necessary for an economic entity to obtain future economic benefits from its assets, they can be listed under fixed assets (IAS 16, par. 11);
2) in accordance with IAS 37, an entity has the obligation to create provisions for penalties or clean-up costs for environmental damage, including the decommissioning costs of an oil installation or nuclear power plant (IAS 37, par. 19);
3) the basic standard dealing with the presentation of financial statements, IAS 1, since the time it underwent a »major« novelisation in 2007 (coming into force on 1 January 2009) has featured a reference to environmental issues. Par. 14 provides that "Many entities also present (…) reports and statements such as environmental reports and value added statements, particularly in industries in which environmental factors are significant (…)". Further it states,

however, that "(…) Reports and statements presented outside financial statements are outside the scope of IFRS." (IAS 1, par. 14).

The International Accounting Standards Board (IASB), noticing the lack of uniformity in environmental reporting, takes up initiatives towards integrating financial reporting with social reporting, including that which takes into account environmental issues. After consultations on this matter with the accounting community, it was found, however, that neither currently, nor in the near future, it is not possible to bring this type of reporting into effect (Fijałkowska, Sobczyk, p. 143).

The role of environmental accounting is also to supply the information necessary to fulfil information obligations arising from other regulations than those of the balance-sheet law. This group includes various types of reports and other documents which are required by »environmental« regulations. The variety of such reports and the fact that they concern various groups of entities provided in the regulations, make it impossible to list all of them. Due to the number of economic entities which are obliged to submit them, the following three types of reports are the most important in Poland (http://www.wroclaw.pl/sprawozdania_srodowiskowe.dhtml):

1) »Waste« report – includes: annual reports on products, packaging, and the management of waste resulting from them, as well as an annual report on the waste produced and waste management; each organisation covered by the requirement to submit them is obliged to submit such reports to the relevant Marshal's Office once a year by 15 March.
2) A report on the use of the environment – submitted to the Marshal's Office and simultaneously to the Voivodeship Inspectorate for Environmental Protection (WIOŚ) twice a year (by the end of January and by the end of July); this concerns, in particular, such issues of using the environment as gas and dust emissions and the use of water and production of wastewater from/to plants other than municipal; based on these reports, the so-called environmental fee is calculated.
3) KOBiZE report – whose extent is similar to the report on the use of the environment, although in contrast to it, it is submitted in electronic form to the base of the National Centre for Emissions Management (KOBiZE) once a year (by the end of February), separately for each establishment of a company.

Besides the abovementioned groups of reports, entities also prepare obligatory reports pursuant to the Act on national statistics. From the point of view of the use of the environment, Polish businesses, regardless of their size and type of activity, must consider whether it is necessary to submit, e.g. a report on the emissions of air pollutions and on the condition of purification equipment (OS-1), reports on managing water, wastewater, and pollution loads (OS-3), as well as reports from municipal and agricultural wastewater treatment plants (OS-5), etc.

A milestone in reporting environmental issues was the emergence in 1990, of *corporate environmental reporting* (CER). "Corporate environmental reporting is the process by which a corporation communicates information regarding the range of its environmental activities to a variety of Stakeholders including employees, local communities, shareholders, customers, government and environmental groups" (Pramanik et al., 2008, p.148). This information is disclosed voluntarily. The practice of CER is increasingly common among businesses all over the world, particularly those which have adopted corporate social responsibility as one of their operational objectives. Such reports are published e.g. on the websites of such organisations. They can also be sent to a special database of social reports managed by the *Global Reporting Initiative* (GRI) and available on its website: https://www.globalreporting.org/.

As regards the CER reporting practices, Poland is unfortunately trailing behind global standards (Fijałkowska, Sobczyk, 2012, p. 145). The report on corporate social responsibility (including environmental issues), which has been prepared annually for several years and is based on surveys, shows that only 2% of large companies approach these issues in a regular manner (6$^{th}$ Ranking of Responsible Companies 2012, 2012, p. 32). The optimistic signals observed included increased interest in applying and reporting corporate social responsibility, which is evidenced by, e.g. the appearance of new entities in the ranking and the declarations to use the survey questions in the process of self-assessment and improving the approach to CSR (6$^{th}$ Ranking…, p. 32).

The contents of environmental reports can be varied. In accordance with GRI standards (mentioned in section 3), a reliable environmental report should contain, *inter alia*, a description of the environmental policy, the disclosure of information regarding the management approach to various aspects (raw materials, energy, water, waste, wastewater, products and services, transport, etc.), the specification of the method of dividing responsibility over various environmental aspects, the procedures for training and the monitoring of preventive and corrective actions in the field of environmental protection, risk, and chances of an organisation in the field of environmental protection, etc. (GRI, 2000-2006, p. 29). Despite GRI's contribution to the unification of reporting rules for CSR, over 30 different patterns exist globally. The fact that there are numerous different guidelines and that there are no uniform regulations results in the reports being different in terms of form, content, and quality (Micherda (Ed.) 2012, pp. 94-95).

## 5. CASE STUDY

This section presents the results of a study of financial statements and environmental reports of a chemical industry company operating in the Lublin Voivodeship, Poland (Zakłady Azotowe Puławy S.A.). The study is aimed at verifying the thesis that economic entities present incomplete information on the impact of their operations on the natural environment.

For more than 50 years, Zakłady Azotowe Puławy S.A. has been the leader of the Polish fertilisers and chemical industry, and one of the largest Polish exporters (about 50% of its production is exported). In 2004 the company introduced an Integrated Management System, which consists of: the Quality Management System[4], the Environmental Management System[5] and the Occupational Health and Safety Management System[6]. The adopted system is subject to audits every three years and is certified by three types of documents (Environmental Report, 2012, pp. 1 and 10):

a) the Quality, Environmental and Safety Policy,
b) the Quality, Environmental and Safety Book,
c) the procedures and regulations, as well as internal manuals.

The investigated entity discloses information on the impact of its economic activities on the environment in Environmental Reports[7] published annually on its website. The report is about 30-pages long and includes such elements as company data (history, mission, products, awards), research and development, environmental strategy, management systems, investments, corporate social responsibility, the achieved environmental effects, costs of environmental protection and fees for environment use. The data presented in the Report are, for the most part, listed in natural units, and do not reflect economic loss and environmental effects at all. Even with regard to the fees for environment use, only their breakdown is presented – emissions of gas and dust into the air 51%, discharge of wastewater 7%, water consumption 40%, waste disposal 1%. There is also no clear information about the amounts allocated for investments in environmental protection, as only the global value of investment was provided, along with investments that increase the production potential of the company (Environmental Report, 2012, pp. 21-22). This is a serious shortcoming of the Report, because, as we know, it is important for both internal and external users of information to measure these values in monetary terms.

Further, an analysis is provided of the method of presenting information regarding environmental issues, in the financial statement of ZA Puławy. The investigated entity prepares financial statements for a period of 12 months, counted from 1 July to 30 June. The website also publishes quarterly and semi-annual reports and amendments to these documents. The annual report drafted as at 30 June 2012 was analysed, and certain elements directly connected with environmental protection were observed (The Financial statement…, 2012, pp. 35, 55, 63):

[4] Established to increase client satisfaction by meeting client demands and expectations, managed on the basis of ISO 9001.
[5] Assisting activities connected with environmental protection and pollution prevention, managed on the basis of ISO 14001.
[6] An instrument for the prevention of accidents at work and occupational diseases, managed on the basis of PN-N 18001.
[7] Two approaches to preparing Environmental Reports may be observed among businesses: 1) presenting information in the form of colourful folders, showing only the positive aspects of the entity's impact on the natural environment; 2) providing very detailed information, not necessarily positively influencing the company's image. A properly prepared environmental report should include properly selected essential information on the relationship of the organisation and the natural environment (Wojciechowska, 2009, pp. 41-43).

1) A separate note was provided on $CO_2$ emission allowances; it includes information about the method of accounting for and appraisal of allowances (when used for the company's own purposes, they are included under the costs of basic activity, and are subject to an annual test for impairment) and of the amount of such allowances held by ZA Puławy (they were granted for a four-year period, from 2008 till 2012; the number of $CO_2$ emission allowances granted is 6,786 thousand tonnes (1,357 thousand/year); in the years 2008-2011 and in the first half of 2012, the total emissions of the company amounted to 6,317 thousand tonnes $CO_2$.
2) The note regarding provisions includes information on provisions for utilisation costs and connected with the recultivation and monitoring of landfill sites (based on a 26-year plan of using and 30-year plan of monitoring a landfill), - regarding the withdrawal from use in the economic process of goods containing asbestos (settled for 20 years), - connected with the removal from production plants and management of waste (a 26-year plan for further use); the value of provisions for the above-mentioned items by the end of the last financial year was PLN 3,062 thousand, and decreased in comparison to the previous period by PLN 1,109 thousand; the provisions of this type have a strong share in total provisions (about 16%).
3) The final area of the financial statement of Zakłady which contains information regarding environmental protection is the note on costs divided into types, in which in the group "outsourced services" the costs of outsourced services connected with environmental protection were isolated; it also presents the item "outsourced services connected with environmental protection"; in the last financial year these costs amounted to PLN 627 thousand, in the previous year to PLN 1219 thousand, and in the year before PLN 2015 thousand. This means that there is a clear decrease in the level of these costs visible, also when compared to the level of all costs incurred by type (over the last two financial years, there was a decrease from 0.05% to 0.023%).

Unfortunately, besides these three aspects, there was no other information on environmental costs in the financial statement of ZA Puławy.

The analysis of reports and statements of ZA Puławy leads to a conclusion that the investigated entity takes into account environmental factors in its activities to a large extent, regularly subjects itself to environmental audits, and takes up various, also voluntary, environmental initiatives. The basic medium used by the entity to communicate its activities in the field of environmental protection is the Environmental Report. Nevertheless, there is a noticeably small amount of information listed as values (monetary measures) published by the company. The company's financial statements also contain sparse data in this regard.

The thesis provided at the beginning of section 5 of this study was verified positively. To confirm the thesis on entities providing incomplete information about their impact on the environment, it is also useful to quote studies performed on a group of Polish enterprises of the chemical and power industries (24 companies in the ranking of "Pięćsetka POLITYKI", i.e. the list of 500 largest Polish companies ranked by sales revenues). Half of the investigated entities provided no information on environmental issues, and about 40% disclosed only qualitative data, with chemical companies more willing to share environmental information (Paszkiewicz, Szadziewska, 2011, p. 305-308).[8]

An analysis of other studies leads to similar conclusions, e.g. the Centrum CSR.PL foundation: "75% of the largest Polish companies has sections dedicated to the environmental and social aspects of their operations on their websites. However, most of the published information is general and selective – these are the conclusions from the study performed by the CentrumCSR.PL foundation and DNV" (Screening…).

## 6. CONCLUSIONS

Perceiving the role of an organisation only as a means for generating profits for its owners, while ignoring the negative influence of its operations, e.g. on the natural environment, has been discarded – today, organisations are looking for such a development model that would take into account the interests of not only the organisation itself and its immediate environment, but also society at large. The awareness of the influence of corporate responsibility and sustainable development on economic

[8] A more extensive survey of a group of Polish companies (60 entities from five sectors of industry), see: Szadziewska, 2012, pp. 104-115.

development and the will of a given entity to be identified with activities in this regard has contributed to the increased popularity of environmental reporting and collection of information on the relationship of the entity and the environment in the information system of accounting.

A considerable increase in the number of CSR reports is noticeable: from 11 in 2007, to 37 in 2011, although we are still far behind Western European countries, where 1000% more such reports are prepared on average (5 lat…), which means that we should expect CSR accounting to develop further in the coming years.

It should be pointed out that environmental accounting directly influences an increase in environmental activities in a given entity. Additionally, managing a record of phenomena that might directly or indirectly affect the environment, is used in environmental management and for the purposes of control and prevention of adverse effects of operations on the environment. Preparing a reliable environmental report requires an entity to specify accounting principles regarding environmental protection, and name the specific concepts regarding environmental issues that are present in the company, and to properly adjust and manage a corporate chart of accounts. Thanks to such actions, environmental reports will be uniform, reliable and clear for customers. The biggest problem, according to authors, is the lack of tools used for converting specific measures in the field of CSR, including environmental issues, into the economic situation and financial result of the company. To achieve this, it is necessary to separate the record of liabilities and receivables of an environmental nature, environmental revenues and costs, or the record of the movement of fixed and current assets connected with the environment-oriented activities of an organisation. Without such additional breakdowns of information, the majority of statements of companies will continue to treat CSR superficially as a tool to build a positive image, and the primary information provided will be reports on charity and sponsorship. In the opinion of companies, state institutions and the government administration should adopt certain measures that could help them implement and fulfill the concepts of corporate social responsibility. Some of the most important measures suggested were the simplification, modification, and uniformisation of regulations, standards and procedures binding on entrepreneurs (Ocena stanu…). A necessary, but also an extremely difficult project is the introduction of uniform CSR reporting templates, and, according to the authors, the bodies responsible for the implementation and dissemination of CSR, including environmental issues, should focus their efforts on this subject specifically.

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