



**Списание за наука**

**„Ново знание“**

ISSN 2367-4598 (Online)

ISSN 1314-5703 (Print)

*Академично издателство „Талант“*

*Висше училище по агробизнес и развитие на  
регионите - Пловдив*

**New Knowledge**

**Journal of Science**

ISSN 2367-4598 (Online)

ISSN 1314-5703 (Print)

*Academic Publishing House „Talent“*

*University of Agribusiness and Rural Development  
Bulgaria*

<http://science.uard.bg>

## **THE USEFULNESS OF INFORMATION ABOUT THE ENVIRONMENTAL POLICIES OF LARGE ENTERPRISES IN BULGARIA**

**Pavlina Dimitrova**

*University of agribusiness and rural development, Plovdiv, Bulgaria*

**Abstract:** The development examines issues related to the environmental policy of public interest enterprises and the usefulness of its disclosure in the required non-financial declaration.

The regulatory framework in the context of the environment is discussed. Conceptual views were defined according to certain eight criteria. The latter are specified on the basis of the guidelines drawn up in the Ministry of Finance Directive in connection with the implementation of Chapter Seven "Annual Reports", Section III "Non-Financial Statement" and Section IV "Consolidated Non-Financial Statement" of the Accounting Law.

The criteria determine the risks that can reduce the sustainability of the global economy. It emphasizes the concept of long-term profitability combined with social justice and environmental protection. An empirical study of a representative sample of companies in various sectors has been carried out, and specific results have been disclosed.

**Keywords:** social policy, non-financial information, public company, quantification

### **Introduction**

It is indisputable that human activity and the activity of a significant part of enterprises have an impact on flora and fauna. Climate change is a consequence not only of changes in natural objects - the Sun, volcanoes, etc., but also as a result of the negative impact of man on soil, air, water. This is precisely why regulatory changes regarding disclosure and disclosure elements of corporate environmental policies have become necessary.

The article will examine the content of these policies and attempt to quantify the usefulness of the non-financial information that is publicly disclosed.

## Materials and Methods

The normative acts aimed at controlling the activity of the enterprise in the aspect of environmental prevention are various Directives, Laws, Resolutions, Decisions, etc. The legal requirements are aimed at: air quality; Waste Management; water quality; protection of nature; industrial pollution control and risk management; chemicals; genetically modified organisms; noise from machinery and equipment; nuclear safety and radiation protection; civil protection<sup>1</sup>.

According to the requirements of the Environmental Protection Act, (Environmental Protection Act, last amended 2020, Art. 19) information concerning ecology can be primary, available pre-processed and purposely processed. Anyone can access this data, which is categorized as follows:

- ✓ the state of the components atmospheric air, atmosphere, waters, soil, subsoil, landscape, natural objects, mineral diversity, biological diversity and its elements and the interaction between them;

- ✓ the factors damaging nature: natural and anthropogenic substances and processes; different types of waste and their locations; risky energy sources - noise, vibrations, radiation, as well as some genetically modified organisms. Activities and/or measures, including administrative measures, international treaties, policy, legislation, including reports on the implementation of environmental legislation, plans and programs, that have or are capable of having an impact on environmental components can also be presented upon request;

- ✓ the state of human health and the safety of people, insofar as they are or can be affected by the state of the components of the environment or, through these components, by the factors, activities or measures specified in the previous point;

- ✓ objects of the cultural-historical heritage, buildings and facilities, insofar as they are or may be affected by the state of the components of the environment or, through these components, by the factors, activities or measures specified in item 2;

- ✓ analysis of costs and benefits and other economic analyzes and assumptions used within the measures and activities specified in item 2; emissions, discharges and other harmful effects on the environment.

Directive 2014/95 of the EU of 22.10.2014. recognizes the importance of social and environmental policy disclosures. In this way, the risks that can reduce the sustainability of the global economy are determined. It emphasizes the concept of long-term profitability combined with social justice and environmental protection. In this context, "the disclosure of non-financial

---

<sup>1</sup> Environmental Protection Act, SG No. 91/2002, ... final change SG No. 54/2020;

Convention on environmental impact assessment in a transboundary context, SG No. 86/1999, last amended. No. 5/2018;

Directive 2014/52/EU of the European Parliament and of the Council of April 16, 2014 amending Directive 2011/92/EU on the assessment of the impact of certain public and private projects on the environment; Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the impact of certain public and private projects on the environment; Ordinance on the conditions and procedures for carrying out an environmental impact assessment, SG No. 25/2003, last amended. SG No. 67/2019; Order No. 183/28.02.2020 of the Minister of the Environment and Waters on access and the procedure for completing, updating and entering information in the Public Registers under Art. 102 of the Environmental Protection Act. The Framework Directive 96/62/EU for the assessment and management of ambient air quality; Directive 99/30/EU concerning standards for sulfur dioxide, nitrogen oxides, dust particles and lead in atmospheric air; Directive 92/72/EEC on atmospheric air pollution with tropospheric ozone; Directive 99/32/EU to the minimum sulfur content in gas oil.; Directive 94/63/EU on the reduction of emissions of volatile organic compounds (VOCs) released into the atmosphere from stationary sources; Directive 97/68/EU on measures to limit atmospheric air pollution from engines installed in off-road machines Waste management; Directive 75/442/EU on waste; Directive 91/689/EEC on hazardous waste; Regulation EEC/259/93 on the monitoring and control of the transport of waste within, to and from the EU; Directive 94/67/EU on the incineration of hazardous waste; Directive 99/31/EC on waste disposal; Directive 91/157/EEC on batteries and accumulators containing certain hazardous substances;

information helps to monitor, measure and manage the results of the activities of enterprises and their impact on society" (Directive 2014/95, (3)).

The directive requires the preparation of non-financial information by certain large enterprises, which information concerns employee and social issues (including respect for human rights), corruption and environmental protection.

By disclosing non-financial information, the following goals are achieved:

➤ Consistency of information - reflected in the determination of "rough" criteria (rough framework) for reporting;

➤ Comparability of information - possibility to compare information between companies operating in the same industry;

➤ Highlighting the most likely reasons for the realization of specific risks in order to inform all users of reports and to correct initial intentions in relation to investments in the given reporting unit;

➤ Reflecting the corporate social responsibility policy. The latter is "a concept in which companies integrate, on a voluntary basis, their environmental protection and social initiatives into their business strategies and in interaction with all stakeholders" [9]. The concept has been supplemented, perceiving that it is "the responsibility of an organization for the impacts of its decisions and activities on society and the environment; social responsibility is realized through transparency and ethical behavior and contributes to the sustainable development, health of society [10].

➤ Access to this type of information (for investors) is seen as a step towards achieving market and political incentives to favor business investment and efficiency.

The exemption of enterprises (according to accepted criteria) from the preparation of the Non-Financial Statement is determined with the aim of reducing the overall regulatory burden and is of the "think small first" type.

When providing information, businesses can use the Eco-Management and Audit Scheme (EMAS) in addition to the national frameworks. It is natural that the organizations until the adoption of EMAS used other informal systems - environmental management systems (EMS). It should be specified that this system is voluntary and is used by those companies that have made a commitment to evaluate and improve their environmental performance.

The reasons for the development of this type of system is both the need for optimal use of resources and the need for their recovery.

The characteristic features of the new system can be summarized as follows:

➤ It is applicable to all sectors of the economy;

➤ Simplified methodology, which makes it possible for both small and medium-sized enterprises with limited financial resources to use this standard more willingly;

➤ Stricter requirements for measuring and evaluating environmental results, compared to previous standards;

➤ Unified environmental indicators, on the basis of which it is possible to compare the environmental protection activity of an enterprise in a different time horizon, as well as between different enterprises within the same reporting year;

➤ Disclosure of information to the entire public through an environmental declaration.

➤ Performing an internal environmental audit, which as a type of control repeatedly minimizes its costs compared to the accumulated benefits for the reporting unit and for society. It is assessed whether the management system corresponds to the objectives and policy of the organization;

➤ High degree of participation of workers and employees in the system - conducting an open dialogue with all of them in relation to the company's activities;

➤ Performance of external control of the activity - a type of independent inspection by a certified body.

Before the proposal of this type of system as an environmental standard, ISO 14001 was normatively regulated. The latter is not repealed, rather the EMAS system builds on new requirements and it is obvious that it can be categorized as the most reliable and sustainable system.

When disclosing environmental information, it would be good for companies to be guided by the Principles enshrined in the UN Global Compact, which are specified in the following guidelines in the section on environmental activities [11]:

➤ support for preventive approaches in environmental protection. From the point of view of the fact that prevention is significantly more effective (it is even economically more profitable to prevent an action that destroys nature than to look for methods to restore normal flora and fauna, as well as for human health), then solving known problems can be helped by a combination of mitigation and restoration measures.

➤ taking initiatives stimulating the assumption of greater responsibility towards the environment. In this context, Vaclav Havel's words are particularly relevant: "We are still not able to understand that the only common pillar of all activities - if they are to be moral - is responsibility. Responsibility is something higher than my family, my country, my company, my success." [12].

The welfare of society should come first. Only then can personal good be reached.

➤ promoting the development and dissemination of environmentally friendly technologies. According to an empirical study [13] only for the territory of our country, companies invest in "green economy" for the following reasons:

- ✓ compliance with the regulatory requirements for environmental protection;
- ✓ increase in profits;
- ✓ cost reduction;
- ✓ increasing the company image;

The initial view that investment in such technologies is high, are not confirmed. The benefits are environmental and social, and operating costs are comparatively lower.

In order to harmonize Bulgarian legislation with European legislation, specific changes were made to the Accounting Act [28]. Section III Non-financial statement and section IV Consolidated non-financial statement were introduced to Chapter VII Annual reports. The highlights regarding the publicly disclosed information are defined as [28, art. 48, paragraph 2]:

➤ brief description of the business model of the enterprise - purpose, strategy, organizational structure, infrastructure, products, followed policies regarding the main and auxiliary activities of the enterprise and others;

➤ a description of the policies that the enterprise has adopted and follows in relation to environmental and social issues, including the activities it has carried out during the reporting period and their results;

➤ the objectives, risks and tasks ahead in terms of environmental and social policies, including a description of such activities, that would result in an adverse impact on the environment, employees or other social issues;

➤ description of the main indicators for the results of activities related to environmental and social issues.

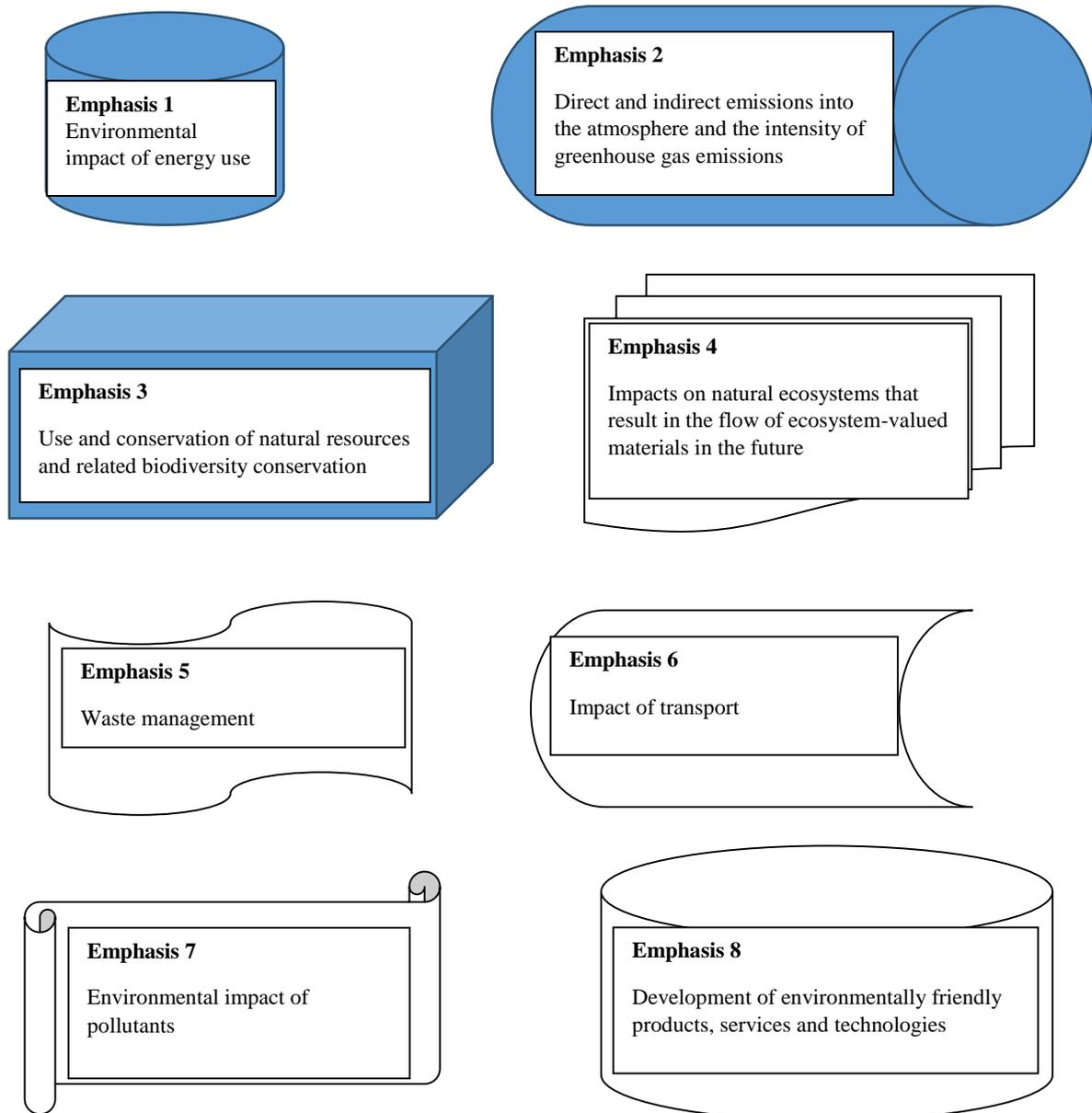
The declaration is prepared specifically by those enterprises of public interest, which for the reporting period as of 31.12 report an average number of personnel over 500 people and are classified as large enterprises.

Partial information on disclosure of environmental protection measures adopted and reporting of costs in this regard can be found in IAS 1 Presentation of Financial Statements, IAS 41 Agriculture, IAS 6 Exploration and Evaluation of Mineral Resources, IAS 37 Provisions, Contingent Liabilities and contingent assets, etc.

According to a Ministry of Finance Directive from 2017, companies must disclose their environmental policies in the following directions:

1. current and foreseeable impact of the activity on the environment, as well as on the health and safety of workers;
2. the use of energy from renewable and/or non-renewable sources;
3. emissions of greenhouse gases;
4. water consumption;
5. air pollution.

These main emphasises are represented by the scheme:



**Scheme 1.** Conceptual emphasises regarding environmental policies of enterprises

Source: Instruction of the Ministry of Finance regarding the implementation of Chapter Seven "Annual Reports", Section III "Non-Financial Statement" and Section IV "Consolidated Non-Financial Statement" of the Accounting Law. Internet resource: [www.minfin.bg](http://www.minfin.bg)

In the following lines, the main highlights will be explained in order to highlight their key role as part of non-financial information.

Regarding how the use of energy affects the environment (**emphasis 1**) - an EU report in the Environment sector [29] strongly advocates the opinion that it is not possible for a primary energy source during its processing not to have a harmful impact on nature.

Energy is obtained from certain raw materials. "In the European Union, 56% of energy is obtained by burning fossil fuels (coal, natural gas and oil). Nuclear energy (35%) and renewable energy resources (9%) are also used" [29].

In Central and Eastern Europe, about 80% of the energy is obtained by burning fuels - nuclear fuel provides 12%, and renewable energy resources - 8% [29]. Primary energy sources are non-renewable (fossil solid fuels, crude oil, natural gas) as well as renewable raw materials (hydropower, geothermal energy, biomass, wind and solar energy). Primary energy sources can be classified according to their greenhouse effect into high-carbon and low-carbon fuels (biomass) and carbon-free fuels (wind, solar, hydro-geothermal and nuclear). .

Enterprises must disclose the types of fuels they use for energy production.

Regarding **emphasis 2** - During the burning of solid fuels, emissions of CO<sub>2</sub>, SO<sub>2</sub>, NO<sub>x</sub>, dust and solid particles are released. CO<sub>2</sub> is the main culprit of the greenhouse effect, while SO<sub>2</sub> and NO<sub>x</sub> help to form acid rain and, together with dust, worsen air quality. It is necessary to publicly disclose the quantities of harmful emissions as well as the policy for reducing greenhouse gases.

In relation to **emphasis 3** - one of the objectives of the Strategic Plan for Biodiversity (2011-2020) is that by 2020, but no later, incentives, including biodiversity-damaging subsidies, have been eliminated, phased out or modified in order to minimize or avoid their negative impact and to create and implement positive incentives for the conservation and sustainable use of biodiversity, under and in accordance with the Convention and other relevant international obligations, taking into account national socio-economic conditions." [30]

In relation to **emphasis 4** - measures taken to improve ecosystems - afforestation, cleaning of riverbeds, etc. are taken into account.

Regarding **emphasis 5** - management should be carried out in the directions of prevention, extended responsibility of the producer, proximity and self-sufficiency (waste should be destroyed as close as possible to its occurrence).

The purpose of disclosure of **emphases 6 and 7** is similar to that of the previous highlights. In relation to **emphasis 8** - it is necessary to determine how socially responsible the enterprise is in the performance of its activity.

### **An empirical study**

The scope of the surveyed companies includes those that:

**a/** meet the criteria for large enterprises. According to the Accounting Act [28], the following must be fulfilled for them:

- as of 31.12 of the current reporting period, they exceed at least 2 of the following indicators: balance sheet value of assets - BGN 38,000,000; 2. net revenue from sales - BGN 76,000,000; 3. average number of personnel for the reporting period - 250 people.

**b/** fall within the scope of the so-called enterprises of public interest - they are specified in § 1, item 22 of the Additional provisions to the Law, they include: a) enterprises whose transferable securities are admitted to trading on the regulated market in a member state of the European Union; b) credit institutions; c) insurers and reinsurers; d) pension insurance companies and the funds managed by them; e) investment intermediaries, which are large enterprises according to this law, etc.

c/ exceed the criterion for the average number of employees as of 31.12. of the current one reporting period of 500 people.

Companies should be selected from the register of enterprises of public interest. After a thorough review of this registry, it appears that:

- The list is current as of 01.11.2016 (published on the website of the Commission for Public Supervision of Registered Auditors) [15];
- 569 companies that are recognized as enterprises of public interest have been disclosed;
- From the total number, 12% already in 2016 are declared bankrupt;
- Toward the end of 2020, after a personal inspection, it was found that there are actually 70 companies with a staff list of over 500 people;
- A sample of 37% of the companies (26 enterprises) will be investigated, regardless of the fact that even with a significantly smaller number specific results can be derived.

**Table 1.** Researched companies

<b>№</b>	<b>Name of the public company</b>	<b>Economic sector</b>
1	Kozloduy NPP SSK	Production, transmission and distribution of electrical energy
2	Bulgartransgaz SSK	Production, transmission and distribution of gas
3	ViK Burgas SSK	Collection, purification and delivery of water
4	ViK Plovdiv SSK	Collection, purification and delivery of water
5	Evrohold Bulgaria SK-Sofia	Financial and insurance activities
6	Bulbank SK	Financial and insurance activities
7	Bulgartabak holding SK- Sofia	Industry of tobacco products
8	NK Jelezopatna infrastruktura	Repair, maintenance and operation of railway infrastructure
9	DSK SK	Financial and insurance activities
10	Gejnenerdji Bulgaria 1 SK	Supply of electrical energy
11	Evrohold Bulgaria SK -Sofia	Financial and insurance activities
12	Bulstrad Viena Insurance Group- Sofia	Financial and insurance activities
13	M+S hidravlik SK	Production of hydraulic pumps, hydraulic and pneumatic motors
14	Monbat SK	Chemical industry
15	Neohim Sk - Dimitrovgrad	Chemical industry
16	First investment Bank SK	Financial and insurance activities
17	Petrol SK	Trade in motor fuels and lubricants
18	Raifajzenbank SK	Financial and insurance activities
19	Sinergon holding SK	Financial and insurance activities
20	Sofarma treyding SK	Pharmaceutical industry
21	Spidi SK	Postal and courier services
22	Stara planina hold SK	Financial and insurance activities
23	Sofijska voda SK	Collection, purification and delivery of water
24	Trejsgrup hold SK	Building industry
25	Jury Gagarin SK	Printing activity
26	Eurobank SK	Financial and insurance activities

The research will be conducted in several directions (the specified 8 emphases in environmental policy will be used as criteria):

1. What types of criteria every company must disclose information (for example, if a company does not emit greenhouse gases during its activities, it cannot provide data on this);
2. Is information disclosed according to the required criteria;

3. Is the information sufficient or is it reflected pro forma - with one or two sentences each;
4. Is it available on the companies' websites?

The study uses MS Excel. Binary variables from 0 to 1 help summarize the results. The attempt to quantify non-financial information - Bulgarian and foreign - has been thoroughly reviewed by Dimitrova, P. [31].

## Results

The overall result for the three studied years (2018, 2019, 2020) shows that the highest coefficient was reached for the criterion "Waste Management" - 0.84, and the same number was reported for the criterion "Impact on the environment from polluting substances" ( for 2018, 2019, 2020). The level of disclosed information is the lowest for the criterion "Environmental impact from energy use" (for 2018 only). By year, the results show the following picture:

**For 2018**, the highest result was reported under **criterion 5 "Waste management"** for sectors: Production, transmission and distribution of electric energy, as well as for the Chemical industry; Collection, purification and delivery of water; Repair, maintenance and operation of railway infrastructure (for all units). 70% of companies provide specific information about their waste management. BRC certification is announced in the packaging and packaging materials section, as the delivered packaging is FSC-certified - with guaranteed origin for responsibly managed wood sources. Most of the envelopes available for package packaging are made of polyethylene with an additive for accelerated degradation using Epi Global's polydergalax technology. Work is also underway to reduce the volume of paper used. So, for example, Paperless solutions for electronic management of the work process have already been developed and successfully implemented in Speedy Ad. One of the innovations is a professional signature pad. Its main feature is that it drastically reduces paper consumption for making deliveries. In addition, unlike tablets, it only serves to accept signatures, which provides greater security to customers and reduces the possibility of errors.

Copiers are also implemented, identifying how much paper each employee uses, and containers for separate collection of paper are placed in the administrative buildings.

Separate waste systems: separate collection, minimization, recovery and recycling of production and household waste, as well as concluded contracts with waste transfer companies, are declared by more than 82% of companies.

Separate waste management programs are used, but as part of the Environmental Management System (EMS). Fines imposed for non-compliance with the legislation are not disclosed, incl. The Waste Management Act.

Over 55% of the enterprises have built sites for waste storage, incl. for hazardous waste: oils, batteries, filter elements. 25% of all companies built these sites more than 10 years ago, i.e. extreme construction is not required due to a change in the regulatory framework. Regarding both **2019 and 2020**, the results are the same.

With a score of 0.86, it is also the second-to-last seventh **indicator "Environmental impact of polluting substances"**, which is largely contributed by the sectors "Supply, transmission and distribution of electric energy", "Print activity", "Chemical industry", "Trade in automotive fuels and lubricants", "Construction industry" - all with a coefficient of 1.

As for air pollutants - these are dust particles, nitrogen dioxide and ozone near the earth's surface. They affect the human respiratory system to the greatest extent. Exposure to these pollutants regularly causes bronchitis, asthma, allergies and can even lead to premature death. Over 80% of Europe's urban population is exposed to pollutants in concentrations higher than permissible limits. For example, fine particulate matter (PM2.5) in the air reduces life expectancy in the EU by more than 8 months.

The indicator worsened in the sectors Pharmaceutical industry and postal and courier services - respectively 0.52.

**The criterion "Development of environmentally friendly products and services"** ranges from 0.71 (for 2018) to 0.72 for 2019 and 2020.

The leading sectors are the chemical industry, postal and courier services, financial and insurance services, hydraulic pump and hydraulic pneumatic motor manufacturing.

More than 37% of the companies take practical steps to reduce the costs of natural resources - new machines and equipment with reduced environmental pollution, including activities to optimize the circular use of purified water and a closed cycle of cooling water.

Funds have been invested in terminal reconstructions; floating tank roofs to limit evaporation; new trestles for bottom filling of tankers, etc. ISO 9001:2015 certification is declared.

The introduction of automatic shipment stations with their environmental efficiency is perceived as an innovation. The machines themselves are energy efficient, with monthly electricity consumption between 20 and 30 kWh.

A positive result of the implemented environmental policy is ensuring and simultaneously achieving efficient business, effective cost control, energy saving and reduction of harmful emissions.

20% of companies do not disclose information according to this criterion (for 2019). There is not even a declaration regarding the fact that the enterprise does not have the possibility or does not intend to carry out activities in connection with this.

For 2019, there is no change with what was announced by the enterprises for 2020.

For 2018, the information (non-exhaustive) in the field of courier services is less well presented. There is no change in the other sectors.

**The criterion "Impacts on natural ecosystems that lead to a flow of materials valuable to the ecosystem in the future"** ranges from 0.74 to 0.76. By year, the indicator changes as follows: for 2018 - 0.74, for 2019 - 0.72., 2020 - 0.76.

It is consciously emphasized that the activity of each enterprise affects at least one component: air, soil, water. Even those that are not in the realm of polluting chemical activities, just through the use of paper documents, affect the reduction of forests and hence climate change.

Environmental inspections have been established in about 5% of companies - they control, coordinate and lead environmental activities. Detailed information is presented on green energy production covering up to 98% of the needs of demanding treatment plants.

Direct and indirect emissions into the atmosphere and intensity of greenhouse gas emissions for all three years have the same score of 0.80.

All fields are excellent, except for the gas production sector and the pharmaceutical industry.

In the printing activity, monitoring of the sources of emissions of harmful substances in the atmospheric air from stationary sources of pollution from established sampling points was carried out. No deviations from the norms were found. As a recommendation, it could be presented - to specify information about the amount of sampling points - whether they are sufficient and evenly distributed.

Accredited laboratories monitor certain processes, such as checking air content.

In the mining industry, they specifically disclose the air pollutants that are monitored in a controlled manner - emissions of dust, sulfur dioxide, nitrogen dioxide, ammonia, hydrocarbons, carbolic acid.

Naturally, the railway company reports air pollution only during repairs and construction. However, there are no specific figures for the repairs carried out for all three monitored years, as well as an analysis of the specific volume of emissions. Only environmental impact assessment procedures have been declared.

5% of companies mention that the CO<sub>2</sub> emissions report has been successfully verified by the Ministry of Environment and Water. No complaints have been filed by citizens and legal entities against any of the companies for uncontrolled polluting activity.

Most businesses have described the main risks they face as:

- non-compliance with environmental norms and the established quality control system and non-implementation of activities to reduce pollution of the production area;
- increase in the amount of generated waste;
- need for a systematic review of the quality control system.

A company provides data on reducing pollution by reducing emissions of released pollutants. A project to reduce the use of natural gas per ton has also been implemented.

Emissions of waste gases in the atmospheric air from Phytochemical plants and Plants for solid medicinal forms are measured annually.

Effective water purification is carried out with a reduction in the volume of chemicals and reagents. Water emissions are monitored for temperature, oxygen content, lead, copper, zinc, phosphates and more. Soil monitoring is about nitrate, ammonia, phosphates, zinc, lead.

The next **criterion "Usage and conservation of natural resources and the related conservation of biological diversity"** is also key in order to protect the flora and fauna. Indicators range from 0.68 to 0.7. Narrow limits, which means that almost every year it is announced by ch.t. of volume and quality of the same type of information.

16% of the companies have less affected data according to this criterion. They either lack information entirely or it is summarized in 1 sentence. Chemical industry, courier services can be mentioned as sectors.

Contingency action plans have been developed at 13 companies. Every year, risky situations are replayed, as a result of which no significant risks have been identified. There have been no complaints from the public regarding environmental pollution.

In the nuclear power industry, all safety standards for radioactive waste storage are adhered to. Nuclear fuel is stored in special pools and special storage for this type of fuel.

When operating nuclear facilities, the principles of radiation protection, defined in the Ordinance on basic norms of radiation protection, are observed. A long-term radiation monitoring program is presented.

For the criterion "**Impact on the environment from the use of energy**" it is important to clarify that:

- its highest overall value is 0.63 and its lowest is 0.58;
- For 2019, five companies did not provide specific data;

The leading industries in terms of volume and quality of information are the chemical industry, production, transmission and distribution of electrical energy, financial and insurance activities, postal and courier services.

The data are most comprehensive for 28% of the companies;

With a coefficient of 0.5 are 29% of the companies;

For 2019, a positive increase of 5.17% (compared to 2018) is recorded in total according to the criterion. This is mainly due to the more comprehensive information disclosed in the print activity. Again, the most useful is information released by companies in the same sectors as in 2018.

For 2019, a positive increase of 3.28% compared to the previous year stands out. The reason for this is the improvement of the indicator in the sector of financial and insurance activities.

Since 2020, two enterprises have been certified for energy efficiency - ISO 50001:2011 with an efficiently operating energy management system - a systematic approach to continuously improve energy performance, incl. and for energy efficiency. Periodic external and internal audits are carried out, declaring that the extent to which the objectives of ISO 50001:2011 have been achieved has been reached. The data for the degree itself is not available. The need for changes to the EMS has been announced, without specifically framing what they should be.

Reducing the use of energy - declarativeness - by purchasing machines that use less energy; how it affects the transport of company cars, trucks, etc. it is not mentioned - are they used with any European standards.

The main conclusion that has been announced is that the increase in energy efficiency leads to a reduction in the use of natural raw materials and a reduction in the amount of waste from them, rational redistribution of products, separate collection and disposal of waste.

Good energy efficiency practices are followed. There is a permanent tendency to reduce the energy used (for 3% of the companies), the period for buying back the investments. The plans regarding energy saving are in the guidelines:

- Determination of the annual amount of energy savings, taking into account the mutual influence of individual measures;
- Technical-economic evaluation of the proposed energy-saving measures and improvements;
- Analysis and evaluation of the annual amount of saved carbon dioxide emissions as a result of the developed measures to increase energy efficiency;
- Report on the results of the survey;
- Summary of the report on the previous point.

Measures to increase the energy efficiency of industrial systems must be brought into line with the current regulations.

Energy sources used for these 3% companies are mainly non-renewable energy sources in strict compliance with the implemented procedures for the purpose of control and rational use of natural resources.

Regarding the "**Impact on transport**" criterion, the following emphasises stand out:

➤ Light-duty and heavy-duty vehicles for courier services at the end of 2019 totaled 850 units. The practice of increasing the share of LPG cars is also increasing in 2019. Thus, the consumption of LPG reached 548,682 liters, of diesel – 1,711,243 liters, and of gasoline – 169,601 liters. An additional environmental benefit from the increase in LPG consumption is determined by the lower emissions of fine dust and nitrogen oxides from these cars. This is particularly good news for larger cities where there are many issues of this type to be resolved. Electric cars and electric tricycles are introduced. An important project is the construction of a network of automatic post offices. Vending machines have a number of advantages both for customers and in terms of the pursuit of environmental protection. Currently, the machines are located in key locations, many of which are retail locations, and allow customers to benefit from access to the machines during extended hours, as well as to combine sending and receiving packages with other tasks such as shopping.

➤ At the "Railway Infrastructure" company, 4 types of transport are announced: land, rail, sea, air, working with forwarders certified to carry out this activity. Freight forwarders have the necessary equipment to transport dangerous goods;

➤ 28% of enterprises (for 2018) do not disclose how transport affects the environment, as well as what policies they apply to limit the impact;

➤ For 2019 and 2020, we have a positive growth of 16.78%, which means that more companies rather make some declarative statements, but the information provided is not useful for consumers;

➤ 42% publish extensive data on the types of transport and their policies to reduce pollution from this factor;

➤ The remaining 30% have a coefficient of 0.5, which means that the information is not comprehensive.

## Conclusion

As a result of the conducted empirical research, the following conclusions and recommendations can be made:

- Certain difficulties were found in determining the scope of companies that should prepare the Non-Financial Statement. There is no unified register for enterprises of public interest with more than 500 employees;
- There is no single sector that comprehensively discloses information on all the listed criteria;
- Apparently the most significant criteria adopted by the companies are "Waste Management" and "Environmental Impact of Polluting Substances". The information is presented comprehensively, specifically listing all pollutants related to the companies' activities.
- The overall coefficient according to criteria has the lowest value of 0.59 (ie it is not below 0.5), which means that the companies strive to inform the public, according to the requirements;
- The declarativeness of the type "all legal requirements are fulfilled" can be considered as a negative moment; "risks are observed" etc. It would be more useful to present specific data, e.g. per item sampling points, number of replaced diesel cars with ecological ones, etc.
- There is no doubt that it is extremely useful for consumers to be informed about environmental policies. Rather, however, questions can be raised about the method of disclosure (type of declarativeness or a certain degree of detail) from ch. to the fact that the information must be comparable. Otherwise, it loses its value.
- As a result of the above, it would be more useful to prepare a single methodology for quantifying the information, and this methodology needs to be consistent with the recommended nature of disclosures according to criteria;
- It is more appropriate for the criteria in the field of ecology to be unified by industry, and not generally according to the "size" of the companies - number of personnel, total amount of assets and net sales revenue. This is due to the fact that businesses, e.g. in the chemical industry, create many times greater risk to the environment than insurance companies.

## Acknowledgements

*This publication was prepared under INVEST - "INnoVations of REgional Sustainability: European UniversiTy Allianc" Project No. 101004073. The project has received co-funding by the Erasmus+ Programme of the European Union. Responsibility for the information and views set out in this paper lies entirely with the authors.*

## REFERENCES

- [1] Online interpretive dictionary - [http://talkoven.onlinerechnik.com/duma ecology](http://talkoven.onlinerechnik.com/duma%20ecology)
- [2] Lakov, Pl. (2015). Regional economy, Pleven, p. 25.
- [3] Taylor, D et al. Biology. (2013) [Electronic resource] in 3 items T.1. Moscow, BINOM, p. 454.
- [4] Nurtdinov, A.R. (2013). About the role of eco-oriented enterprises as a key institution of sustainable development of the country//Vestnik Kazanskogo Teknologicheskogo Universiteit, Internet resource: <https://cyberleninka.ru/article/n/o-rol-i-ekologo-orientirovannyh-predpriyatiy-kak-klyuchevogo-instituta-ustoychivogo-razvitiya-strany>
- [5] Law on Environmental Protection, SG No. 91/2002, ... final change SG No. 54/2020;
- [6] Convention on environmental impact assessment in a transboundary context, SG No. 86/1999, last amended. No. 5/2018

- [7] Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the impact of certain public and private projects on the environment, <https://eur-lex.europa.eu/legal-content>
- [8] Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment, <https://eur-lex.europa.eu/legal-content>
- [9] Ordinance on the conditions and procedures for carrying out environmental impact assessment, SG No. 25/2003, last amended. SG No. 67/2019
- [10] Order No. 183/28.02.2020 of the Minister of the Environment and Waters on access and the procedure for completing, updating and entering information in the Public Registers under Art. 102 of the Environmental Protection Act
- [11] Framework Directive 96/62/EU on the assessment and management of ambient air quality <https://eur-lex.europa.eu/legal-content/>
- [12] Directive 99/30/EU on standards for sulfur dioxide, nitrogen oxides, particulate matter and lead in ambient air; <https://eur-lex.europa.eu/legal-content/>
- [13] Directive 92/72/EU on atmospheric air pollution with tropospheric ozone; Directive 99/32/EU to the minimum sulfur content in gas oil.; <https://eur-lex.europa.eu/legal-content/>
- [14] Directive 94/63/EU on the reduction of emissions of volatile organic compounds (VOCs) released into the atmosphere from stationary sources; <https://eur-lex.europa.eu/legal-content/>
- [15] Directive 97/68/EU on measures to limit atmospheric air pollution from engines installed in off-road machinery Waste management; <https://eur-lex.europa.eu/legal-content/>
- [16] Directive 75/442/EU on waste; <https://eur-lex.europa.eu/legal-content/>
- [17] Directive 91/689/EU on hazardous waste; <https://eur-lex.europa.eu/legal-content/>
- [18] Regulation EEC/259/93 on the monitoring and control of the transport of waste within, to and from the EU; <https://eur-lex.europa.eu/legal-content/>
- [19] Directive 94/67/EU on the incineration of hazardous waste; <https://eur-lex.europa.eu/legal-content/>
- [20] Waste Directive 99/31/EU; <https://eur-lex.europa.eu/legal-content/>
- [21] Directive 91/157/EU on batteries and accumulators containing certain hazardous substances; <https://eur-lex.europa.eu/legal-content>
- [22] EU Directive 2014/95 <https://eur-lex.europa.eu/legal-content>
- [23] European Commission. (2006). Implementing a partnership for growth and jobs: making Europe a role model for CSR implementation. Communication from the EC
- [24] Draft standard ISO 26000 - Performance evaluation - social responsibility. Internet resource: <https://www.sgs.bg/bg-bg/sustainability/social-sustainability/audit-certification-and-verification/iso-26000-performance-assessment-social-responsibility>
- [25] United Nation Global Compact, Internet resource: [https://www.unglobalcompact.org/library/search?search%5Bissue\\_areas%5D%5B%5D=211](https://www.unglobalcompact.org/library/search?search%5Bissue_areas%5D%5B%5D=211)
- [26] Havel, Vaclav. Internet resource: <https://www.worldwater.org>
- [27] Boeva, B. Vasileva, A., Pavlova, V., Stoychev, I. (2015). The changes informs of international business in the context of global environmental efforts. Economic and social alternatives, 4, p.18
- [28] Accounting Law, SG No. 95/2015, ...last amended No. 26/2020, Art. 41.
- [29] European Union. Activities. Environment. Internet resource: <http://old.europe.bg/htmls>
- [30] Ministry of Environment and Water - Internet resource: [https://www.moew.government.bg/static/media/ups/tiny/filebase/Nature/Biodiversity/Kalina/Strategicheski\\_doc/AichiTargets.pdf](https://www.moew.government.bg/static/media/ups/tiny/filebase/Nature/Biodiversity/Kalina/Strategicheski_doc/AichiTargets.pdf)
- [31] Dimitrova, P. (2015). Transparency of the annual financial statements of public companies., Publishing House "Ongle" Varna

[32] Stoilov, V., K. Nedeva, N. Nanev, (2018). Model of financial analysis of an organizational biodiversity enterprise, VI International Scientific Congress "Agricultural Machinery", Proceedings Uses of machines. Innovative technologies. Conserving Soils and Water, v.2, p.199 - 201,

[33] Nedeva K., Nanev N., Marinov P., (2015). The green infrastructure - a new approach to achieve sustainable development in the region, "Promising problems of economics and management: collection of scientific articles", Publishing House "Breeze", Montreal, Canada, p. 141 - 145.

[34] Асенова, М., Н. Марева, (2012). Икономически аспекти на опазване на околната среда в земеделието“, сп. „Ново знание“, бр.3, год. 1, с. 91-94.

[35] Рангелова, Л. (2012), Приложни аспекти и проблеми на счетоводството при управление на търговските банки след присъединяването на България към Европейския съюз, изд. “Стопанство”, София.

[36] Рангелова, Л. (2010). Счетоводството като контролна и информационна система в търговските банки. Годишник на ИДЕС за 2010.

[37] Иванова, Р. (2016). Системата за опазване на околната среда в контекста на балансираната система от показатели за анализ на ефективността от дейността на промишлените предприятия. сп. Управление и устойчиво развитие, бр. 1, с. 37-41.