European Research Studies Journal
Volume XXIV, Issue 2B, 2021

pp. 979-993

Determination Climate-Related Information Reporting on the Example of Selected Polish Listed Companies

Submitted 20/03/21, 1st revision 13/04/21, 2nd revision 15/05/21, accepted 30/06/21

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Abstract:

Purpose: *This article aims to assess the scope of climate-related non-financial information disclosed in reports published by selected Polish listed companies. To that end, a research hypothesis was formulated as follows: lack of mandatory regulations on notifying stakeholders of the climate-related impacts of a given enterprise limits the scope of the disclosures.*

Design/Methodology/Approach: *The following research methods were applied in this study, literature review, analysis of legal regulations, in-depth analysis of secondary data in the form of non-financial reports. Also, induction and synthesis methods were applied in formulating the conclusions. For the empirical study, 10 top Polish listed companies (the biggest in terms of market capitalization, included in the WIG-20 index) were selected on a targeted basis. The study covered non-financial reports for 2019. The research consisted of two phases: in the 1st phase, descriptive information was evaluated, whereas the 2nd phase focused on analyzing disclosures of quantitative nature in the form of non-financial indicators.*

Findings: *The analysis of the non-financial reports of the selected Polish companies confirmed that the scope of disclosed climate-related information was small, mainly since the disclosures were voluntary (positive verification of the hypothesis). Both the descriptive part of the disclosures and the one expressed in the form of indicators confirmed that the non-financial reports were not a sufficient tool for stakeholders to obtain information on the impact of the business operations on the climate.*

Practical Implications: *The research study has confirmed the need to intensify legislative works to develop a catalog of required, structured, comparable, and reliable climate-related disclosures.*

Originality/Value: *The article supplements the existing body of research related to non-financial reporting by identifying the research gap about climate-related disclosures in Poland after 2019.*

Keywords: *Non-financial reports, climate, sustainable development, CSR, natural environment.*

JEL Classification: *Q01, Q56.*

Research Type: *Reasearch paper.*

Acknowledgments: *The project is financed within the framework of the program of the Minister of Science and Higher Education under the name "Regional Excellence Initiative" in the years 2019-2022; project number 001/RID/2018/19; the amount of financing: PLN 10,684,000.00.*

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1. Introduction

Climate changes constitute one of the significant global challenges in sustainability reporting. Firstly, enterprises have to increase their awareness of and cope with the risk that their business operations may harm the climate and that climate changes pose a risk to their activity. Secondly, non-financial reports, though they constitute an essential tool in the process of legitimization of corporate social responsibility (Schuman, 1995; O' Donovan, 1999; Zyznarska-Dworczak, 2015), are not widely applied to disclose climate-related information (Giannarakis *et al.,* 2018, Kouloukoui *et al.,* 2018; Wassim, 2019). Also, in many authors' opinions, the scope of information disclosed in the reports is insufficient to meet the stakeholders' expectations (Da Silva Gomes *et al.,* 2017; Leurig and Dlugolecki, 2013; Leurig, 2011; Broder, 2010; Ben-Amar and McIlkenny, 2014). What is the situation in Poland?

Since the end of 2016, sustainability reporting has been required by the Polish legal regulations. As a result of the transposition of the EU directive regarding disclosure of non-financial and diversity information (Directive 2014/95/EU), the Polish Accounting Act was amended to introduce the obligation for some public interest entities to disclose extended non-financial information3. Unfortunately, by 2019, non-financial reporting did not parallel with the development of the legal regulations regarding the disclosure of climate-related information. That was because the GRI Standards4, the most often applied rules both in Poland and globally, did not provide complex guidelines for reporting climate-related information. Therefore, in 2019 the European Commission, in cooperation with the Climate Disclosure Standards Board (CDSB), published the Supplement on reporting climate-related information as part of the Guidelines on non-financial reporting (OJ C 209/1, 20.6.2019). The document prepared by the European Commission takes the form of a Communication from the Commission and is not obligatory for the Member States. Whether or not non-financial reports in Poland are an excellent tool to obtain information on the impact of business operations on the climate. A systematic literature review did not provide an unambiguous answer to the posed question, which revealed a particular research gap in that respect.

Therefore, the purpose of this article is to assess the scope of climate-related non-financial information presented in reports published by selected Polish listed companies. To that end, a research hypothesis was formulated as follows: lack of mandatory regulations on notifying stakeholders of the climate-related impacts of a given enterprise limits the scope of the disclosures. The study covered 10 top companies (the biggest in market capitalization) listed on the Warsaw Stock Exchange and included in the WIG-20 index. The study covered non-financial reports for 2019.

This article consists of four major parts. The first section contains a review of the literature and legal regulations connected with climate-related reporting. Parts 2 and

3 focus on the methodological assumptions adopted respectively in the research process and on the results of the empirical studies. The last part of the research paper outlines the conclusions. This article supplements the existing body of research related to non-financial reporting by identifying the research gap about climate-related disclosures in Poland after 2019. The following research methods were applied in this study: literature review, analysis of legal regulations, in-depth analysis of secondary data in the form of non-financial reports. Also, induction and synthesis methods were applied in formulating the conclusions.

2. Literature Review

For the past four decades, environmental accounting and reporting topics have enjoyed substantial interest from academic researchers. They included, Gray and Owen (1988), Deegan and Gordan (1996), O'Donovan and Gibson (2000), Alazzani and Wan-Hussin (2013), Nazari (2017). Over time, given the impacts of business entities on the environment, disclosures of environmental information became increasingly insufficient. The onset of the 21st century saw the first publications regarding corporate climate change disclosures. These were, for example, Reid *et al.* (2009), Dawkins *et al.* (2011), McTague (2012). Subsequent studies on that subject were dedicated to examining the dependencies between disclosing climate-related information by a given enterprise and its financial result (Albertini, 2013), corporate image (Sullivan and Gouldson, 2012), or cost of capital (Dhaliwal *et al.*, 2011).

In recent years, the focus moved from enterprises to stakeholders and their information needs. Many investors, especially those more concerned about the economic effects of climate risks, share the view that climate risk reporting should be mandatory and standardized, as is currently the case with financial reporting (Ilhan, 2020). This view is shared by La Torre *et al.* (2018), Lombard and Secundo, (2020), La Torre (2020), and Carungu *et al.* (2020), who, respectively, point to the need to structure and digitize the non-financial information and to increase its reliability and comparability.

A special place in the literature on the subject is also held by publications dedicated to empirical studies focused on evaluating sustainability disclosures (including climate-related issues) in non-financial reporting in various countries all over the world. These could be e.g., Liesen *et al.* (2015), Cotter *et al.* (2011), Morueta-Holme *et al.* (2018), Ooi and Amran, (2018), Bohr (2020). Also, Polish authors have contributed their valuable studies in that regard. Sustainability disclosures were examined by i.a., Balicka (2014), Jurkiewicz-Wójcik (2015), Dyduch (2017), Majchrzak and Nadolna (2020). However, it should be noted that in the literature on the subject, there are no publications dedicated exclusively to climate-related reporting, which means that most probably this article is one of the first ones after 1 January 2019, thus filling the research gap in this respect in Poland.

As already mentioned, 2019 is crucial for the considerations presented herein, being the year of publishing by the European Commission the Supplement on reporting climate-related information as part of the Guidelines on non-financial reporting (OJ C 209/1, 20.6.2019). In addition to being the EU legal framework dedicated to climate-related reporting, that document also refers to numerous global standards and frameworks of reporting. These can be exemplified first and foremost by the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), and also by GRI Standards (Global Reporting Initiative), CDP (formerly: Carbon Disclosure Project) climate change questionnaire, Climate Disclosure Standards Board (CDSB) standards, regulations developed by the International Integrated Reporting Council (IIRC) or Eco-Management and Audit Scheme (EMAS).

According to the European Commission, disclosure of detailed climate-related information may provide the reporting company with a number of benefits. These include: (Supplement on reporting climate-related information, item 1.2, p. 3):

- increased awareness and understanding of climate-related risks and opportunities within the company, better risk management, and more informed decision-making and strategic planning,
- a more diverse investor base and a potentially lower cost of capital, resulting for example from inclusion in actively managed investment portfolios and in sustainability-focused indices, and from improved credit ratings for bond issuance and better credit worthiness assessments for bank loans,
- more constructive dialogue with stakeholders, in particular investors and shareholders,
- better corporate reputation and maintenance of social licence to operate.

According to the European Commission’s guidelines, climate-related information should be presented in non-financial reports in five categories. These are business model, policies and due diligence processes, outcomes of the policies, principal risks, management, and key performance indicators. Tables 1 and 2 present the detailed scope of climate-related non-financial disclosures recommended by the European Commission, broken down into the descriptive part (business model, policies and due diligence processes, outcomes of the policies, principal risks, and their management) and the critical non-financial performance indicators.

Table 1. *Guidelines regarding disclosure of climate-related non-financial information. Part 1 (descriptive)*

s/n	**Category**	**Recommended scope of climate-related disclosures**
I.	Business model	1. Impact of climate-related risks and opportunities on the company’s business model, strategy and financial planning. 2. Ways in which the company’s business model can impact the climate, both positively and negatively. 3. Resilience of the company’s business model and strategy, taking into consideration different climate-related scenarios over different time

		horizons, including at least a 2°C or lower scenario and a greater than 2°C scenario.
II.	Policies and Due Diligence Processes	1. Company policies related to climate, including any climate change mitigation or adaptation policy. 2. Climate-related targets the company has set as part of its policies, especially any GHG emissions targets, and how company targets relate to national and international targets and to the Paris Agreement in particular. 3. The board's oversight of climate-related risks and opportunities. 4. The management's role in assessing and managing climate-related risks and opportunities and explain the rationale for the approach.
III.	Outcomes	1. Outcomes of the company's policy on climate change, including the performance of the company against the indicators used and targets set to manage climate-related risks and opportunities. 2. Development of GHG emissions against the targets set and the related risks over time.
IV.	Principal Risks and their Managemen t	1. The company's processes for identifying and assessing climate-related risks over the short, medium, and long term and disclosing how the company defines short, medium, and long term. 2. Principal climate-related risks the company has identified over the short, medium, and long term throughout the value chain, and any assumptions that have been made when identifying these risks. 3. Processes for managing climate-related risks (if applicable how they make decisions to mitigate, transfer, accept, or control those risks), and how the company is managing the particular climate-related risks that it has identified. 4. How processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management. An important aspect of this description is how the company determines the relative significance of climate-related risks in relation to other risks.

Source: *Own study based on the Communication from the Commission: Guidelines on non-financial reporting: Supplement on reporting climate-related information, OJ C 209/1, 20.6.2019, section 3).*

Table 2. *Guidelines regarding disclosure of climate-related non-financial information. Part 2 (key performance indicators)*

s/n	Category	Recommended scope of climate-related disclosures
I.	GHG emissions	1. Direct GHG emissions from sources owned or controlled by the reporting company (metric tons CO2e); 2. Indirect GHG emissions from the generation of acquired and consumed electricity, steam, heat, or cooling (collectively referred to as 'electricity') (metric tons CO2e); 3. All indirect GHG emissions that occur in the value chain of the reporting company, including both upstream and downstream emissions (metric tons CO2e); 4. GHG absolute emissions target (metric tons CO2e achieved or % reduction, from base year).
II.	Energy	1. Total energy consumption and/or production from renewable and non-renewable sources (MWh); 2. Energy efficiency target (%); 3. Renewable energy consumption and/or production target (% increase of the proportion of renewable energy consumed / produced from base year).

III.	Physical risks	1. Assets committed in regions likely to become more exposed to acute or chronic physical climate risks (%); 2. Percent turnover in the reporting year from products or services associated with activities that meet the criteria for substantially contributing to mitigation of or adaptation to climate change as set out in the Regulation on the establishment of a framework to facilitate sustainable investment (%) or 3. Percent investment (CapEx) and/or expenditures (OpEx) in the reporting year for assets or processes associated with activities that meet the criteria for substantially contributing to mitigation of or adaptation to climate change as set out in the Regulation on the establishment of a framework to facilitate sustainable investment (%).
IV.	Green Finance	1. Climate-related Green Bond Ratio (%) or 2. Climate-related Green Debt Ratio (%).

Source: *Own study based on the Communication from the Commission: Guidelines on non-financial reporting: Supplement on reporting climate-related information, OJ C 209/1, 20.6.2019, section 3).*

It should be stressed that in addition to the non-financial indicators shown in Table 2, the European Commission invites companies to make additional climate-related disclosures. These include i.a. sector-specific indicators relevant for the particular industry, indicators on related environmental issues, human capital, or social issues. This is particularly important now that society demands initiatives aimed at counteracting adverse impacts on the climate.

3. Research Methodology

The purpose of the study was to evaluate the scope of non-financial disclosures regarding impacts of business operations on the climate, published in reports of selected listed Polish companies. The study covered 10 top listed Polish companies (the biggest in market capitalization), included in the WIG-20 index of 27.05.2020. The respondents were selected on a targeted basis. The list of Polish-listed companies covered by the study is presented in Table 3.

Table 3. *10 top Polish listed companies (the biggest in terms of market capitalisation), included in the WIG-20 index as at 27.05.2020.*

s/n	Name of entity	Sector	Market value (PLN bn)
1.	CD Projekt	Gaming	39.69
2.	PKO Bank Polski	Commercial banks	28.175
3.	PKN Orlen	Mining and production	28.17
4.	PZU	Insurance companies	25.91
5.	PGNIG	Mining and production	22.89
6.	DINO Polska	Essential everyday products	18.06
7.	KGHM	Metal ore mining	17.04
8.	Santander Bank Polska	Commercial banks	16.94
9.	Cyfrowy Polsat	Telecommunications	15.79
10.	Bank PEKAO	Commercial banks	14.03

Source: *Own study based on https://www.gpw.pl/.*

The research study was based on analyzing the secondary data of the said companies. The study covered non-financial reports for 2019. Climate-related information was disclosed as part of Management Reports or as separate reports/ statements of non-financial information. The research material was collected from websites of the companies covered by the study. The preliminary analysis of the non-financial reports covered by the study made it possible to find out about the reporting procedures applied by the individual companies. The primary legal framework for nine of the studied entities was GRI Standards. The average number of pages in the reports was 130. The essential characteristics of the non-financial reports covered by the study, i.e., name, legal regulations, and volume, are presented in Table 4.

Table 4. *Basic characteristics of non-financial reports of 10 listed companies included in the WIG-20 index, covered by the study (data for 2019)*

s/n	Name of entity	Name of report	Legal regulations	Number of pages
1.	CD Projekt	Management report	GRI Standards	137
2.	PKO Bank Polski	Management report	GRI Standards	183
3.	PKN ORLEN	Non-financial report	GRI Standards	71
4.	PZU	Non-financial report	GRI Standards	175
5.	PGNIG	Non-financial report	GRI Standards	68
6.	DINO Polska	Management report	no data	77
7.	KGHM	Non-financial report	GRI Standards ISO 26000	126
8.	SANTANDER Bank Polska	Management report	GRI Standards	158
9.	Cyfrowy Polsat	Non-financial report	GRI Standards	116
10.	Bank Pekao	Management report	GRI Standards	185

Source: *Own study based on the non-financial reports published on websites of individual companies.*

Regarding climate-related disclosures, the proper examination of the non-financial reports consisted of two phases, in the 1st phase, descriptive information was evaluated, whereas the 2nd phase focused on analyzing the disclosures of quantitative nature in the form of non-financial indicators. To that end, it was necessary to prepare a coding structure. Concerning the descriptive part, a subjective scale from 1 to 3 was adopted, where 1 means a low disclosure level, 2 - a medium disclosure level, and 3 - a high disclosure level. The indicator analysis, in turn, required stating whether specific non-financial indicators were present or absent. To that end, a zero-one system was applied, where 1 confirms disclosure, i.e., the given indicator was furnished in the report, and two means the indicator was missing.

The first analyzed group of climate-related disclosures found in the non-financial reports includes descriptive information assessed in four areas. There were, business model, policies and due diligence processes, outcomes of the policies, principal risks, and their management. The analysis of the collected research material has shown that the companies are aware of the responsibility for the climate that they bear; however, seldom do they visualize how their business will be functioning in change climate conditions and whether their business model is resilient to market changes and business running conditions resulting from climate changes. Only three companies have shown a high level of disclosures in that respect. As for the remaining categories, i.e., climate-related policies, outcomes of the policies, principal risks, and management, the disclosure level was medium or low. Tables 5a and 5b present the detailed results of the non-financial report's analysis in terms of climate-related descriptive disclosures.

***Table 5a.** Climate-related information in the non-financial reports covered by the study - scope of descriptive disclosures (data for 2019)*

s/n	Climate-related descriptive disclosures	Non-financial report				
		PKO BP	PEKAO	PZU	SANTANDER	ORLEN
1.	Business model	1	1	3	2	3
2.	Policies and Due Diligence Processes	2	1	2	2	2
3.	Outcomes	1	1	2	2	2
4.	Principal Risks and their Management	2	1	2	2	2
	Total (max. 12 points):	6	4	9	8	9

***Note:** where: (1) means a low disclosure level, (2) means a medium disclosure level and (3) means a high disclosure level.*
***Source:** Own study.*

***Table 5b.** Climate-related information in the non-financial reports covered by the study - scope of descriptive disclosures (data for 2019)*

s/n	Climate-related descriptive disclosures	Non-financial report				
		CD Projekt	KGHM	DINO	POLSAT	PGNiG
1.	Business model	1	3	2	1	2
2.	Policies and Due Diligence Processes	1	2	1	1	2
3.	Outcomes	1	2	1	1	1
4.	Principal Risks and their Management	1	2	1	1	1
	Total (max. 12 points):	4	9	5	4	6

***Note:** where: (1) means a low disclosure level, (2) means a medium disclosure level and (3) means a high disclosure level.*
***Source:** Own study.*

The second phase of the empirical study focused on the climate-related quantitative disclosures presented in non-financial indicators. That section was divided into four smaller ones reflecting the four disclosure categories recommended by the European Commission, i.e.; (I) Greenhouse gas emissions, (II) Energy, (III) Physical risk, and (IV) Green finance (Tables 6-9).

Within the first category of disclosures, four non-financial indicators were adopted to show the scale of greenhouse gas emissions. Only one company obtained a maximum score in this category, as it reported all of the defined indicators. The majority of the emitters limited themselves to disclosing information on direct emissions of GHGs, ignoring any other aspects. Only four companies reported indirect emissions data. Detailed research results in category I, Tables 6a and 6b present greenhouse gas emissions.

Table 6a. *Climate-related information in the non-financial reports covered by the study - scope of disclosures in category I: Greenhouse gas emissions (data for 2019)*

s/n	**Metric/ non-financial indicator**	**Non-financial report**				
		PKO BP	**PEK AO**	**PZU**	**SANTAND ER**	**ORLE N**
1.	Direct greenhouse gas emissions from sources owned by the reporting company (metric tons CO2e)	1	0	1	1	1
2.	Indirect GHG emissions from the generation of acquired and consumed electricity, steam, heat, or cooling (metric tons CO2e);	1	0	1	1	0
3.	All indirect greenhouse gas emissions found in the company's value chain (metric tons CO2e)	0	0	1	1	0
4.	GHG absolute emissions targets (metric tons CO2e achieved or % reduction, from base year)	0	0	0	0	1
	Total (max. 4 points):	2	0	3	3	2

Note: *where: (1) confirms disclosure, (0) means no disclosures.*
Source: *Own study.*

Table 6b. *Climate-related information in the non-financial reports covered by the study - scope of disclosures in category I: Greenhouse gas emissions (data for 2019)*

s/ n	**Metric/ non-financial indicator**	**Non-financial report**				
		CD Projekt	**KGH M**	**DINO**	**POLSAT**	**PGNi G**
1.	Direct greenhouse gas emissions from sources owned by the reporting company (metric tons CO2e)	0	1	1	0	1
2.	Indirect GHG emissions from the generation of acquired and consumed electricity, steam, heat, or cooling (metric tons CO2e);	0	1	0	0	0
3.	All indirect greenhouse gas emissions found in the company's value chain (metric tons CO2e)	0	1	0	0	0

4.	GHG absolute emissions targets (metric tons CO2e achieved or % reduction, from base year)	0	1	1	1	1
	Total (max. 4 points):	0	4	2	1	2

Note: *where: (1) confirms disclosure, (0) means no disclosures.*
Source: *Own study.*

The second category of disclosures covers energy consumption. Most of the analyzed companies have provided a comprehensive account of measures taken to reduce their energy consumption gradually. Unfortunately, the description was not reflected in the reported indicators. Even though nine companies published their total energy consumption figures for the business year, only three of them provided a percentage of energy consumption from renewable energy sources. Moreover, none of the companies reported its energy efficiency. Detailed results of the analysis of non-financial reports covered by the study in category II, Energy is shown in Tables 7a and 7b.

Table 7a. *Climate-related information in the non-financial reports covered by the study - scope of disclosures in category II: Energy (data for 2019)*

s/ n	**Metric/ non-financial indicator**	**Non-financial report**				
		PKO BP	**PEKAO**	**PZU**	**SANTANDER**	**ORLEN**
1.	Total energy consumption or production from renewable and non-renewable sources (MWh)	1	1	1	1	1
2.	Energy efficiency target (%)	0	0	0	0	0
3.	Renewable energy consumption and/or production target (% increase of the proportion of renewable energy consumed / produced from base year)	0	0	0	0	0
	Total (max. 3 points):	1	1	1	1	1

Note: *where: (1) confirms disclosure, (0) means no disclosures.*
Source: *Own study.*

Table 7b. *Climate-related information in the non-financial reports covered by the study - scope of disclosures in category II: Energy (data for 2019)*

s/ n	**Metric/ non-financial indicator**	**Non-financial report**				
		CD Projekt	**KGHM**	**DINO**	**POLSAT**	**PGNiG**
1.	Total energy consumption or production from renewable and non-renewable sources (MWh)	0	1	1	1	1
2.	Energy efficiency target (%)	0	0	0	0	0

3.	Renewable energy consumption and/or production target (% increase of the proportion of renewable energy consumed / produced from base year)	0	1	1	0	1
	Total (max. 3 points):	0	2	2	1	2

Note: *where: (1) confirms disclosure, (0) means no disclosures.*
Source: *Own study.*

Approaching the climate change issue from a broader perspective, it is also necessary to note financial materiality and related physical risks, as weird weather like, e.g., severe storms, long-term heat waves, frosts, droughts, and fires may affect their business continuity. Therefore, the third category of disclosures regards physical risks (Table 8). In this category, three non-financial indicators were defined; however, none of the examined companies decided to report them.

Table 8. *Climate-related information in the non-financial reports covered by the study - scope of disclosures in category III: Physical risk (data for 2019)*

s/ n	Metric/ non-financial indicator	Outcome for all the analysed companies
1.	Assets committed in regions likely to become more exposed to acute or chronic physical climate risks (%)	0
2.	Percent turnover from products or services associated with activities that meet the criteria for substantially contributing to mitigation of climate change effects (%)	0
3.	Percent investment (CapEx) or expenditures (OpEx) for assets or processes associated with activities that meet the criteria for substantially contributing to mitigation of climate change effects (%)	0
	Total:	0

Note: *where: (1) confirms disclosure, (0) means no disclosures.*
Source: *Own study.*

The last analyzed category of disclosures was green finance. All the analyzed companies declared to strive to minimize the adverse effects of their business activity on the climate. Nevertheless, none of the studied companies disclosed their financial engagement in that respect. Collective information on disclosures in category IV: Green finance regarding the studied entities is presented in Table 9.

Table 9. *Climate-related information in the non-financial reports covered by the study - scope of disclosures in category IV: Green finance (data for 2019)*

s/ n	Metric/ non-financial indicator	Outcome for all the analysed companies
1.	Climate-related Green Bond Ratio (%)	0
2.	Climate-related Green Debt Ratio (%)	0
	Total:	0

Note: *where: (1) confirms disclosure, (0) means no disclosures.*
Source: *Own study.*

Summing up, the analysis of the non-financial reports of the selected Polish listed companies have confirmed that the scope of disclosed climate-related information is small, mainly because the disclosures are voluntary (positive verification of the hypothesis). Both the descriptive part of the disclosures and the one expressed in the form of indicators confirmed that the non-financial reports were not a sufficient tool for stakeholders to obtain information on the impact of the business operations on the climate. Still, the low level of awareness about climate-related risks is not typical to Polish listed companies only. Similar conclusions were reached by CDSB5, which in addition to some improvements, has pointed out significant gaps about disclosure of climate-related information by EU companies, and consequently advocates the need for further improvement in terms of quantity, quality, and comparability of disclosed information (CDSB, 2020:26).

4. Conclusions

Methodology and good practices in climate-related reporting are subject to dynamic changes. In response to the changing guidelines and growing expectations of stakeholders who demand better disclosure of climate risks and sustainability indicators, companies should run a transparent information policy in that respect. Based on the literature review and own studies, it was possible to attain the goal of assessing the scope of non-financial, climate-related disclosures presented in reports published by some selected Polish listed companies. As climate-related reporting is not mandatory under Polish law, the analyzed non-financial reports were insufficient in both descriptive and quantitative parts. Similar conclusions were drawn by the International Reporting Standards Foundation, Polish Association of Listed Companies, and Bureau Veritas, which in 2020 conducted the Corporate Climate Crisis Awareness study6. In this light, it seems necessary to intensify the legislative works to prepare a catalog of obligatory, structured, comparable, and reliable (confirmed by external audit) climate-related disclosures.

At this point, it should be noted that specific measures have already been taken in that respect. Namely, in April 2021, the European Commission published the Proposal for a Corporate Sustainability Reporting Directive (Proposal for a Directive, 2020). Under its assumptions, CSRD would require companies to provide qualitative and quantitative information, forward-looking and retrospective information, and information that covers short, medium, and long-term time horizons. The transposition of CSRD by the member states is planned for the end of 2022.

Finally, it should be added that concluding based on the completed empirical study bears certain limitations. Firstly, the collected research material comprises non-financial reports covering only one business year. This is since the climate-related guidelines developed by the European Commission were published in 2019. Secondly, the study involved a small research sample. Admittedly, the sample was selected on a targeted basis, but the obtained results are not representative, as they refer only to the companies covered by the analysis. Nevertheless, the discussed issue is very up-to-date and maybe a source of inspiration for a research study on a much broader scale, both in Poland and abroad.

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Notes:

3 Public interest entities constitute a broad range of companies, such as i.a. issuers of securities authorised to be traded on regulated markets, or financial institutions such as banks, investment funds, open pension funds. The ones which in the business year for which the financial statements were prepared, as well as in the preceding year, exceeded the following threshold values (Accounting Act 2021, Art. 49b. para. 1):

1) *500 employees - annual average employment calculated as the number of FTE jobs, and*
2) *PLN 85,000,000 - balance sheet total as at the end of the business year, or PLN 170,000,000 of net sales of goods and products in the business year*

are required to prepare a non-financial information statement/ report.

4 Since 2000, a total of over 38.5 thousand non-financial reports have been published as per the GRI regulations all over the world, which accounts for more than 60% of all such reports (http://database.globalreporting.org, access: 30.04.2021).

5 CDSB (Climate Disclosure Standards Board) examined the 2019 environmental and climate-related disclosures of Europe's 50 largest listed companies.

6 Reporting Standards Foundation, Polish Association of Listed Companies and Bureau Veritas Polska in cooperation with Go Responsible and MATERIALITY published the results of the 2nd edition of the Corporate Climate Crisis Awareness study. The study covered the annual reports of all listed companies required to disclose non-financial information for 2019. The average result achieved by 151 companies covered by that study was 1.87 out of 10 (https://www.seg.org.pl, access: 30.04.2021).