https://doi.org/10.15407/scine20.02.003

IEFYMENKO, T. I.[1] (https://orcid.org/0000-0002-9163-3959),
LOVINSKA, L. H.[2] (https://orcid.org/0000-0001-5427-7185),
and KUCHERIAVA, M. V.[1] (https://orcid.org/0000-0003-2948-1234)

[1] The Academy of Financial Management,
46/48, O. Honchara St., 01054, Kyiv, Ukraine,
+380 44 277 5100, afu@afu.kiev.ua

[2] The Academy of Financial Management, Kyiv National Economic University
named after Vadym Hetman,
54/1, Beresteiskyi Ave., Kyiv, 03680, Ukraine,
+380 66 650 8980, documents@kneu.edu.ua

# SUSTAINABLE DEVELOPMENT REPORTING IN EMERGENCY SITUATIONS

***Introduction.*** *The realities of the martial law in Ukraine, the threat of emergency events, in particular pandemics like COVID-19, catastrophic consequences of terrorist acts, post-war reconstruction plans with involvement of external and internal funding from economic agents of all forms of ownership have determined the need for the further promotion of the sustainability concept.*

***Problem Statement.*** *The lack of unified approach to the content of sustainability reporting leads to asymmetry, low level of reliability and impossibility of aggregating statistical information for making management decisions, including those related to resource provision.*

***Purpose.*** *The purpose of this research is to determine methodological approaches in terms of appropriateness, materiality of disclosure in non-financial reporting of companies; disclosure of ways of compliance with principles of transparency and accountability regarding sustainability by leaders of the corporate sector selected for analysis; to substantiate directions for the use of best global practice of reporting within domestic institutional environment during the martial law and post-war recovery.*

***Materials and Methods.*** *The methods are induction, deduction, analysis, synthesis, methods of statistical sampling, comparison, expert evaluations, associations, and analogies.*

***Results.*** *The study of non-financial reporting of 11 foreign metallurgical companies has made it possible to establish the problematic aspects of sustainability data regarding relevance and materiality. Variety of methodological approaches of non-financial reporting leads to increased risks for decision-making as regards development strategies and attraction of resources.*

Citation: Iefymenko, T. I., Lovinska, L. H., and Kucheriava, M. V. (2024). Sustainable Development Reporting in Emergency Situations. *Sci. innov.*, 20(2), 3—23. https://doi.org/10.15407/scine20.02.003

***Conclusions.*** *The research results have proven the hypothesis (H1): unifying the methodology for the formation of indicators and standardizing approaches to the preparation of sustainability reports are the main way to enhance the effectiveness of state regulation and corporate management both in stable situations and in critical conditions of emergency events.*

*Keywords: sustainability reporting, Directive 2013/34/EU, Directive 2022/2464, UNCTAD, ISSB.*

As a result of the full-scale invasion of russian troops into Ukraine — the strengthening of the tendencies of confl ictogenity, institutional fragility, destabilization, imbalance of interests — phenomena of uncertainty are widespread in the world. Thus, the pace of socio-economic development has been slowing down. Experts explain this by the aggravation of the risks of geopolitical and geoeconomic fragmentation caused mainly by vulnerability of the balance of social and economic relations. Among the main causes of modern global, regional, and national upheavals are disproportions in the processes of global financialization, changes in the structure of foreign trade and capital flows, migration, spread of innovative technologies, and provision of public goods in international value-added chains.

At the same time, unprecedented situations in recent history require response and large-scale actions by the private and public sectors of economies in order to overcome unique challenges. It is obvious that no country will be able to get out of the crisis on its own efforts and without established partnership cooperation with business.

Thus, the worldwide spread of the coronavirus pandemic caused problems that hinder the sustainable development of enterprises, industries, and countries. Epidemiological risks significantly increase in the conditions of military operations. Besides global challenges Ukraine nowadays is facing upheavals caused by the war unleashed by the russian federation. Deaths of people, destruction of housing, industrial and infrastructural buildings is supplemented by environmental consequences. One of the most terrible events of this war is the blowing up of the Kakhovska HPP by the russians, which is an obvious act of terrorism similar to war crimes and will cause ecocide in Ukraine. The destruction of the Kakhovska reservoir dam increases the threat of a nuclear disaster [1, 2].

Therefore, further research related to corporate and national reporting on attaining the SDGs should be directed to the search for tools that will help companies in disclosure of compliance with the principles of sustainable development, in counteracting the crisis, and for governments to cooperate more fruitfully with business for the implementation of the SDGs and overcoming negative phenomena in the economic sphere and society. Such an approach will promote social cohesion by raising awareness of international initiatives on disclosure by entities of their response to pandemics, war, terrorist acts, ecocide and on ensuring sustainable development.

Sustainability is given more and more focus when making strategic management decisions regarding the business activity of entities, taking into account the risks of imbalances in market relations, destabilization and regression, recessions in the dynamics of the economic, social and environmental situation in various sectors of the global and regional sovereign geographic space. Sustainable development was recognized as a worldwide priority of humanity in 1992 at the UN Millennium Summit in Rio de Janeiro. It provides for such use of resources in economic activity that satisfies the needs of the society in general and a human in particular, but preserves the environment for present and future generations, despite upheavals of a global and national scale.

In this context, in 2015 the UN Sustainable Development Summit in New York approved the Sustainable Development Goals (SDGs), officially known as Transforming our world: 2030 Agenda for Sustainable Development. They are a set of goals for future international cooperation that replaced the Millennium Development Goals. They were planned to be achieved in the period until 2030. There are 17 global goals in total and 169 relevant tasks [3]. But due to the spread of vulnerability phenomena, a high level of uncertainty, risks of conflict in the conditions of the new economic reality, it is worth taking into account the pessimistic vision of experts [4] regarding the negative forecasts of the implementation of this large-scale program by 2030. During martial law and post-war recovery, an essential feature of strategic management [5] within not only the state, but also the real, corporate sectors of the national economy is to design an action program [6, 7] aimed at neutralizing threats to financial and economic security at all levels of management [8].

In order to achieve signs of sustainable development, the ability to form unified approaches to the qualification of the dynamics of indicators reflected in non-financial reporting is of crucial importance. In this regard, it is very relevant to study the international practices of company reporting on sustainability issues, to find ways of implementing international recommendations concerning adequate assessments of the effectiveness of change management into national legislation.

The formation and development of sustainability reporting have been discussed in academic works of many researchers. Modern directions of scientific papers in this area can be narrowed down to the following:

- theoretical principles of corporate sustainability reporting (Abeysekera I. [9], Abela M. [10], Nasreen T., Baker R., Rezania D. [11] and others);
- standardization of approaches to disclosure of information on the sustainable development of entities (de Villiers C., La Torre M., Molinari M. [12], de Villers C., Dimes R. [13] and others);
- improvement of the regulatory and organizational model of preparation, collection and quality control of corporate sustainability reporting (Amoako K. O., Amoako I. O., Tuffour J., Marfo E. O. [14], Fusco F., Civitillo R., Ricci P., Morawska S., Pustulka K., Banasik P. [15], Iefymenko T., Lovinska L., Kucheriava M. [16] and others);
- empirical studies of the corporate reporting practices on sustainable development by sectors and regions (Tumwebaze Z., Bananuka J., Orobia L., Kinatta M. [17], Leo D., Sfodera F., Cucari N. Mattia G., Dezi L. [18], Buallay A. [19], Alsahali K. F., Malagueno R. [20] and others).

In the Ukrainian academic environment, attention is paid to the abovementioned issues that are a promising direction of research of domestic scientists in the conditions of martial law and post-war recovery (Libanova E. M. [21], Heyets V. M. [22], Hrytsenko A. A. [23] and others).

Despite great attention of researchers to reporting on sustainable development in academic publications, the issues of standardization and unification of approaches to its preparation require further development considering changes in international standards, which will be outlined in this research.

***The purpose of the research*** is to study the existing global trends in the standardization of the methodological basis of non-financial reporting at the international level and to evaluate the practice of compiling sustainability reports by multinational enterprises in order to form a general vision of the further development of the domestic institutional environment in the conditions of martial law and post-war recovery, as well as other emergency situations faced by governments of countries and entities.

***Research hypothesis (H1):*** the variety of types of non-financial reporting leads to a decrease in its effectiveness in performing one of the most important functions, which is the disclosure of information on the company's sustainable development. The relevance of non-financial reporting data under normal operating conditions and during emergency events is ensured through the standardization of approaches to the preparation of such reporting and the unification of the list of indicators with further amendments.

## RESEARCH METHODOLOGY

For the purposes of the research, along with general scientific methods (induction, deduction, analysis and synthesis), the methods of statistical sampling, comparison, expert evaluations, associations and analogies were used.

Reporting on sustainable development is information on economic, environmental and social consequences of the company's activity. It discloses the values, the management model, and the compliance of the company's strategy with attaining sustainable development. This reporting can be considered synonymous to other types of non-financial reporting, namely: triple bottom line reporting, corporate social responsibility reporting and many others [24]. It should be emphasized that the term "non-financial reporting" is currently used in the meaning given in Directive 2013/34/EU, in particular as reporting containing information that characterizes the state and prospects for the company's development and discloses main risks and uncertainties of the activity, including those regarding sustainable development [25]. This meaning corresponds to the definition "sustainability reporting" given in Directive 2022/2464, amending Regulation (EU) No. 537/2014, Directives 2004/109/EU, 2006/43/EU and 2013/34/EU, regarding corporate reporting on sustainable development, approved at the end of 2022 [26]. However, since international organizations (EFRAG, International Sustainability Standards Board, ISSB [27]) are currently working on the standardization of approaches to the disclosure of information on corporate sustainable development after the adoption and approval of the provisions of the relevant standards (IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information*, IFRS S2 *Climate-related Disclosures*, ESRS), clarification will be made in part of the terminological apparatus (the terms "sustainable development reporting", "information on sustainable development" to replace the terms "non-financial reporting", "non-financial information") at the international level [8]. Accordingly, in this research, we also adhere to the currently existing terminological apparatus.

The formation of approaches to non-financial reporting of companies began in the format of voluntary public international initiatives. These include Guiding Principles on Business and Human Rights, Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises; ISO 26000 standard *Guide to social responsibility* (International Organization for Standardization ISO 26000); International Labor Organization Tripartite Declaration of principles concerning multinational enterprises and social policy, Global Reporting Initiative (GRI), etc. [28].

Regulation of the implementation of non-financial reporting along with voluntary international initiatives takes place at the interstate and national level. The most illustrative example is the EU regulations and directives, which are mandatory for application in EU member states:

- Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups [29];
- Directive 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting [26];
- Communication from the European Commission. Guidelines on non-financial reporting (methodology for reporting non-financial information) (2017/C215/01) [30].

Each of the documents mentioned above is aimed at supporting entities to disclose information on sustainable development. For example, in Section 2 of Directive2014/95/EU its purpose is defined as rendering assistance to companies in disclosing high-quality, relevant, useful, consistent and comparable non-financial information, in creating a vision of the sustainable development of the entity, and ensuring transparency for stakeholders [29]. This understanding of the purpose of international, interstate and national initiatives in the field of non-financial reporting is fully justified and objective, since reporting itself is the information basis for monitoring the achievement and effectiveness of the SDG implementation.

The study of the cited documents and the practice of their application shows that in none of them, with the exception of the GRI, the composition of indicative indicators reflecting the state of SDG attainment and recommendations on the methodology of their determination have been defined. In turn, the GRI reporting standards for sustainable development list 56 indicators for general aspects of disclosure, and 85 indicators for economic, environmental and social spheres.

The lack of a unified approach to the content of such reporting leads to incomparability, asymmetry, and impossibility of aggregating statistical information not only within one country, but also between countries, political and economic unions, geographic regions, as well as at the global level.

Another significant consequence related to the lack of uniform approaches to the content of reporting is a low level of data reliability due to company non-compliance with the requirements of the standards for the preparation of non-financial reporting, including SDG reporting [31].

These consequences have become the object of particular attention for both regulatory authorities (for example, EU directive requirements) and international professional and political organizations (UNCTAD, IFRS Foundation).

A fairly successful attempt to solve the problem of unification of reporting data on sustainable development was carried out by the Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR) at UNCTAD with the participation of the authors of this research through successive development of a number of editions of Guidance on core indicators for entity reporting on contribution towards implementation of the Sustainable Development Goals [32, 33] (hereinafter referred to as GCI). The UN Guidance was the result of the largest international initiative aimed at involving companies in activities in accordance with the principles of sustainable development defined by the UN Global Compact [34]. It offers a list of core reporting indicators on entity's contribution to the SDG attainment, which embraces 33 indicators in the four areas: Economic, Environmental, Social, and Institutional. The advantage of this document is that it not only clearly defines the indicators themselves, but also discloses the datasources and calculation methodology, which certainly contributes to increasing the comparability and reliability of the reporting data, despite the purely technical adjustments of the selected indicators. In 2022, the specified document was issued in its final version titled *Guidance on Core Indicators for Sustainability and SDG Impact Reporting* [33]. It should be emphasized that the methodological approaches used in this document clearly correspond to the concept of the UN Global Compact regardless of changes in some indicators.

The EU experience can serve as an example of regulation of the content and procedure of preparation of reports on sustainable development. In 2022, the European Parliament adopted EU Directive 2022/2464 of the European Parliament and of the Council of December 14, 2022 on amendments to Regulation (EU) No. 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU on corporate reporting on sustainable development (hereinafter — Directive 2022/2464) [26]. Directive 2022/2464 amends Directive 2013/34/EU that regulates the presentation of non-financial information. It expands the scope of reporting obligations on the issues of sustainable development of entities that are residents of EU member states or conduct activities on the EU territory. The new obligations will apply to reporting entities starting from fiscal year 2024.

The purpose of Directive 2022/2464 is to establish requirements through the introduction of amendments to the accompanying regulatory legal acts of the EU regarding the disclosure by enterprises of relevant, comparable and reliable information on sustainable development. The introduction of these requirements will contribute to the attainment of the following goals established by the EU:

- implementation of the European Green Deal the purpose of which is the separation of the economic growth from the use of natural resources (p. 1);

- reorientation of capital flows into sustainable investment in order to achieve sustainable and inclusive growth; management of financial risks associated with climate change, resource depletion, environmental degradation and social problems, as well as promotion of transparency in financial and economic activity (p. 2);
- fulfilment of the tasks set by the Paris Agreement in accordance with the UN Framework Convention on Climate Change dated 12.12.2015, the UN Convention on Biological Diversity dated 05.06.1992, in particular in terms of disclosing information on the impact of enterprises on the environment in the context of mitigating the consequences of ecosystem disruption and other challenges caused by human activity (p. 11);
- increase in the number of investment products aimed at attaining the SDGs. In this context, high-quality reporting on sustainable development can contribute to a simplified access of entities to financial capital (p. 12);
- leveling the risks of climate change and their impact on investments; comparability of indicators of the impact of enterprises on country's sustainable development (p.14) and others [26].

Table 1 shows the key changes introduced by Directive 2022/2464 to Directive 2013/34/EU on sustainability reporting.

*Table 1.* **Amendments to Directive 2013/34/EU in Line with Provision 1 of Directive 2022/2464**

| Directive 2013/34/EU | Introduced amendments and additions |
|---|---|
| Article 1 Sphere | Application of requirements on compiling sustainable development reporting by large undertakings, or small and medium-sized undertakings, except micro undertakings |
| Article 2 Definition | Definitions "sustainability matters", "sustainability reporting", "key intangible resources", "independent assurance services provider" are added |
| Article 19 Content of management report | Need to disclose information on key intangible resources by large undertakings, or small and medium-sized undertakings, except microundertakings |
| Article 19a Sustainable development report (amended version) | This article reveals the content of the report on sustainable development; features of the application of reporting standards for sustainable development; peculiarities of exemption from disclosure of full information in the report on sustainable development for small enterprises, captive insurance and reinsurance companies; reporting features of subsidiaries whose parent companies are located in third countries (outside the EU) |
| Article 20 Corporate management report | Specifics of cross-referencing other components of the management report that includes the sustainable development report, are determined |
| Article 23 Exemption from consolidation | The specifics of the exemption from consolidation of enterprises that are required to prepare a report on sustainable development have been clarified |
| Article 29a Consolidated sustainability report (amended version) | Peculiarities of sustainability report consolidation |
| Chapter 6a Sustainability reporting standards (added) | A new section has been introduced, dedicated to the mechanism of development, implementation by EU member states and revision of reporting standards for sustainable development. Also, this section (Article 29b) defines the scope of information disclosure covered by the sustainability reporting standards |
| Chapter 6b Single electronic reporting format (added) | The principles of using electronic format for filing a report on enterprise management have been determined |
| Chapter 7 Publication | The requirements regarding the publication of enterprise reporting in electronic format together with the audit opinion have been specified |

*Source:* [26].

Directive 2022/2464 took a step towards solving the problem of variations in approaches to information disclosure in sustainability reporting through the introduction of mandatory for application of (drafts) Europeans Sustainability Reporting Standards (hereinafter — ESRS).

On August 8, 2022, the drafts of 12 ESRS were presented to EFRAG.

The first set of ESRS standards includes:

1) general standards (cross-cutting): ESRS 1 *General requirements*; ESRS 2 *General Disclosures*;

2) environmental standards: ESRS E1 *Climate change*; ESRS E2 *Pollution*; ESRS E3 *Water and marine resources*; ESRS E4 *Biodiversity and Ecosystems*; ESRS E5 *Resource use and circular economy*;

3) standards regarding the social component: ESRS S1 *Own workforce*; ESRS S2 *Workers in the Value Chain*; ESRS S3 *Affected communities*; ESRS S4 *Consumers and end-users*;

4) management standard: ESRS G1 *Business Conduct* [35].

As for the second set of standards, which EFRAG is still working on, it includes:

1) industry standards (5 industries covered by GRI: agriculture, coal mining, extractive industries, oil and gas (extraction); oil and gas (refining); 5 industries with a high level of impact: energy production, infrastructure, road transport, food industry, textile industry);

2) standards for non-EU resident companies;

3) standard for small and medium-sized enterprises, securities of which are listed on the stock exchange [36].

Another initiative in the field of standardization of approaches to the disclosure of information on sustainable development through the addition of general purpose financial reporting is the design of international standards for sustainable development by the IFRS Foundation. In November 2021, the International Sustainability Standards Board (ISSB) [37], was established, the purpose of which is to develop a high-quality, comprehensive global baseline for sustainability disclosures designed to meet the information needs of investors and financial markets. The ISSB standards should cover important issues of sustainable development (environmental, social, governance — ESG) information on which may be needed to investors in the framework of financial statements prepared in compliance with IFRS.

The current key areas of activity of the ISSB are the development, discussion and further improvement of the draft standards IFRS S1 "General Requirements for Disclosure of Sustainability-related Financial Information" [38] and IFRS S2 "Climate-related Disclosures" [39]. Compliance with the principle of complementarity is assumed when companies apply existing GCI standards and project indicators of IFRS S1, IFRS S2.

The variety of approaches, the presence of a large number of advisory documents on the preparation of non-financial reporting indicates the awareness at the global level of the importance of this component of public reporting for making management decisions by companies, the public, state governments, associations and unions.

At the same time, it should be noted that the emergence of GCI indicates the transition of non-financial reporting to a new level of development. Probably, the desire to unify the indicators of sustainability reporting reflects the new trends towards its standardization.

European researchers pay a lot of attention to the analysis of the experience of implementing EU directive requirements on non-financial reporting. Their choice to study the application of the sustainability disclosure regulation is due to the fact that it is mandatory for companies in Europe. The following range of issues at that is considered.

Analyzing the data of non-financial reporting of companies' securities of which are listed on the Milan Stock Exchange, S. Pizzi studies the impact of the practice of non-financial reporting on the financial results of company's performance, the level of environmental risk on their financial indicators as well as the inverse dependence of negative consequences associated with environmental risks, and positive effects caused by the experience of publishing non-financial statements [40].

The conclusions reached by the abovementioned author confirm the hypothesis that reporting on corporate social responsibility (CSR) as one of the versions of non-financial reporting may not correspond to the current focus of business on environmental sustainability, which is conditioned by the voluntary nature of this type of reporting and its targeted orientation. CSR reporting does not provide control of the impact of the company's activities on the environment, and therefore, in general, does not contribute to the disclosure of the negative consequences on economic and financial indicators. At the same time, playing the role of a tool capable of predicting the receipt of income over time, it can disclose the environmental risk that is associated with economic activity and negatively affects the ability of the company to receive income.

At the same time, Directive 2014/95/EU that proposes its own version of non-financial reporting, is an important tool aimed at information homogenisation that reflects all aspects of company's activity that should prepare non-financial reporting, including on environmental risks and consequences.

The preparation of non-financial reporting in compliance with Directive 2014/95/EU enables its further certification, for example, by conducting audit in lines with norms of p. 60—78 of Directive 2022/2464 by external entities, and further enables a shareholder to make comparisons between investment projects in terms of acceptability.

An important aspect of the European research is the study of the expected effectiveness of the implementation of Directive 2014/95/EU. In particular, C. Carini, L. Rocca, M. Veneziani, C. Teodori analyze the quality of regulation obtained as a result of its implementation, from the standpoint of whether the law achieves its political goals, filling the gap in the disclosure of sustainability, and whether it creates conditions for increasing efficiency of investments, targeting companies towards investment objects in accordance with the legally established framework for disclosure of non-financial information [41].

As it has been emphasized, Directive 2014/95/EU does not provide a specific list of indicators, but only gives an indication of what kind of information it should be, therefore the authors conducted a study of the disclosure of information on the sustainable development of the company according to the reference lines of the content and arrangement of information in the reports of companies prepared in compliance with the Directive. Empirical analysis was conducted on company's reporting in the oil and gas sector, as their reporting is considered sufficiently complete from the point of view of disclosure of non-financial information. In doing so, the authors followed the logic: if regulation can affect this sector, it will do the same for less informed reporting entities. Examining the degree of completeness and arrangement of sustainability disclosure before and after the Directive was enforced, they also focused on whether companies have to spend more in order to meet its requirements, and if so, whether the spendings are significant.

The conclusions obtained by C. Carini, L. Rocca, M. Veneziani, C. Teodori testify to the following:

1. Companies disclose non-financial information quite fully, but there are certain areas that need to be improved in order to meet the requirements of the Directive.

2. Financial statements and sustainability reports may overlap each other. (Thisfact can be interpreted in two ways. As a positive one, because the data of non-financial statements is confirmed by the data of financial statements. As a negative — the data of the financial statements is duplicated by non-financial statements).

3. The quality of regulation resulting from the implementation of Directive 2014/95/EU is high, as it contributes to increasing sustainability disclosure in developed industries such as oil and gas production; companies in this sector will have to invest more in the environment, in human capital in the coming years and in the preparation of relevant information in order to comply with the Directive. In other words, companies will be forced to invest additional funds in eliminating

negative phenomena that hinder sustainable development as well as in reporting.

L. Sierra-Garcia, M. A. Garcia-Benau and H. Maria Bollas-Araya also set the goal of their research to analyze the impact of the implementation of Directive 2014/95/EU on the non-financial reporting of Spanish companies [42]. However, they attempted to examine whether the levelof disclosure of non-financial information is related to the size of the company and the nature ofthe business in which the company operates.

The results obtained by the authors through economic and mathematical modeling are as follows: 97.1% of companies published non-financial information in a separate report before the introduction of the Directive, while their share decreased to 80% after the implementation of the Directive in 2017, namely the adoption of a national regulatory act based on it. The business sector in which the company operates is a determining factor in the level of its non-financial report compeleteness. Companies whose activities harm or may harm the environment are more likely to comply with the law regarding such a report. IBEX-35 companies [1], that publish sustainability reports show higher rates of disclosure of non-financial information than those that do not publish such a report.

The review of publications devoted to the evaluation of the experience of the implementation of Directive 2014/95/EU and the analysis of the results of its application made it possible to identify factors affecting the level of disclosure of non-financial information. According to the authors, mentioned above, such factors are: participation in trading on the stock exchange, the company's activity associated with environmental risks, the size of the company and the nature of the business.

Summarizing the review of studies devoted to the assessment of reports prepared in compliance with the requirements of Directive 2014/95/EU, we can come to the conclusion that the results of the analysis of reporting practices on sustainable development of European companies after the adoption of Directive 2022/2464 will be of interest.

However, there is another factor of influence that has not yet been studied. This is the relevance and materiality of information disclosure in the non-financial reporting of companies in terms of their contribution to attaining the SDGs. These characteristics of information reflect the relevance of reporting.

As it is known from the Conceptual Framework for Financial Reporting, relevant financial information can impact decisions made by users, that is, it has a predictive or confirmatory value, or both of these characteristics. The same source argues that information is material if its absence or distortion can affect decision-making [43]. Relevance and materiality of information, as defined by the Conceptual Framework for Financial Reporting, are fundamental qualitative characteristics of financial reporting. It is quite obvious that they are the same both for non-financial information and non-financial reporting [44, p. 30].

It should be noted that, despite all the variety of types of non-financial reporting in the context of existing international initiatives, interstate and national legal acts, all of them are intended to disclose information on sustainable development. However, the most "targeted" in this sense is reporting in compliance with the GCI. In particular, the GCI refers to the criteria for determining indicators for non-financial reporting as their relevance in relation to the SDGs, and to the principles of reporting — materiality and universality of indicators [32, 33]. This confirms the conclusion made above that the relevance and materiality of information disclosure are qualitative characteristics of financial and non-financial reporting.

The GCI is prepared based on the study of international experience and does not offer new indicators. Its purpose is to select common sustainability indicators based on current reporting practices of companies and leading reporting systems (IFRS [46], IIRC [47], SASB [48], GRI [49]

1 IBEX-35 is a stock index calculated on the Madrid Stock Exchange. It includes shares of 35 largest companies. The list is revised twice a year. The total capitalization of the index exceeds €320 billion.

etc.). As noted above, it suggests a methodology for measuring each indicator and recommends data collection sources for calculation. Moreover, all GCI indicators are quantitative, which is a guarantee of their comparability between individual companies and creates an opportunity for consolidation at the level of industries, countries, as well as globally.

When developing the GCI, the selection of indicators was based on compliance with the following criteria: compliance with at least one monitoring indicator of the SDGs; reliance on existing key initiatives or reporting systems and/or presence in corporate reports; suitability for various industries; the possibility of sequential measurement; suitability for consolidated reporting and reporting of legal entities; availability of data measurement methodology, clarity of reporting thresholds and a consequent approach [32].

All of the above gives reason to consider the GCI indicators currently until the final approval in 2023—2024 of the IFRS S1 and S2 projects as a reference set of indicators for the purpose of assessing the contribution of companies to achieving the SDGs. For this reason, we chose GCI for the analysis of non-financial reporting of companies regarding the relevance and materiality of the information contained in it, from the standpoint of contribution to attaining the SDGs [44, p. 31].

The study was conducted by analyzing the non-financial reporting of companies on their contribution to SDG achievement, posted on the GRI website [49], for compliance with the GCI. The limitation of the study is that, to ensure complete comparability, the data were taken from the pre-crisis period — before the coronavirus pandemic and a full-scale war in Ukraine. The purpose of the survey is to identify deviations from the uniform methodological approaches provided for by the provisions of the GCI. In addition, as the analysis shows, during the crisis periods of the coronavirus pandemic and the war in Ukraine, significant changes were observed in the value-added chains and corresponding changes in approaches to information disclosure. Therefore, the research was conducted from the point of view of preventing asymmetry of information without the use of quantitative indicators, but with a deep analysis of data materiality and comparability [44, p. 31].

Eleven metallurgical companies (Metals Products sector) were selected for the study. In the development of previously conducted studies, the version of GCI as of 2019 was used for methodological comparability [44].

Tables 2—6 are compiled according to the data of their non-financial reporting. They are dedicated to displaying information on whether their reported metrics match those of the GCI. Each table displays the following data by one component.

GCI separates 4 components:
- component A. Economic sphere (Table 2);
- component B. Ecological sphere (Table 3);
- component C. Social sphere (Table 4);
- component D. Institutional sphere (Table 5).

The names of the selected companies are indicated in the headings of Tables 2—5, next to them the year for which the report is prepared is indicated, the type of reporting is indicated in parentheses (the type of reporting was determined by the company and indicated in the report).

The selected companies posted one of four types of reporting in the GRI database: a corporate responsibility report (CRR), an annual report (AR) (in fact, this is a regular financial report with explanations in the form of non-financial indicators), an integrated annual report (IR), Sustainable Development report (SR).

The GCI indicators of the corresponding field are placed on the rows of Tables 2—5. Opposite to each indicator on a line, a mark is made about its presence in the reporting of the company. If there is an indicator, “+” is put, if not “–”.

Table 6 summarizes the GCI-based assessment of the relevance of company’s reporting on their contribution towards the SDG agenda. It is shown the average level of disclosure for each of the four areas, generally for non-financial reporting, as well as the reporting method chosen by each company.

The algorithm for assessing the compliance of the reporting of the 11 companies under study with regard to their contribution to the SDG agenda based on the GCI includes:

1) generalization of the results given in Tables 2—5 for all studied enterprises;

2) calculation of the average number of disclosed indicators for each component (A, B, C, D) as a whole for the studied group of enterprises that meet the GCI by each component (unit);

3) calculation of the average level of disclosure of indicators by each component as a whole for the group of studied enterprises (%).

Figure 1 illustrates the distribution of enterprises by the level of compliance with the GCI, indicating the chosen method of reporting (based on GRI or in another way — Non-GRI).

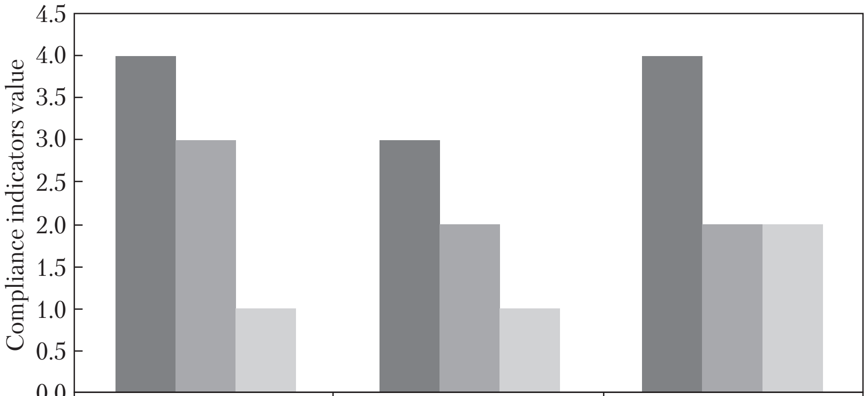
Analyzing the data in Tables 2—6 has shown that among the surveyed respondents there are companies whose reporting does not include indicators for individual GCI components at all. One of the companies (Inscape) provided data only for component B. Environmental sphere, calling its report a sustainability report and presenting it in the database on the GRI website as one compiled according to the GRI version — G4.

The data in Table 6 show that the total number of disclosed GCI indicators varies by companies from 7 to 27, and their average number is 15; the average percentage of disclosure by sphere ranges from 42.86 to 54.55%; the average share of disclosure in all areas by all companies is 45.45%.

*Table 2.* **Assessing the Compliance of Corporate Reporting on the Contribution to the SDG Agenda Based on the GCI, Component A. Economic Sphere**

| Indicators | | ArcelorMittal Belgium 2016 (CRR) | Andelula Investment Holdings 2017 (IR) | Dialog semiconductor 2018(SR) | Miranda Mineral Holdings LTD 2017 (IR) | GRANGES 2016 (AR) | TATA Steel India 2017 (IR) | Doe Run 2018 (SR) | AMG 2016 (AR) | Constellium 2016 (BSR) | Outokumpu 2016 (SR) | Inscape 2017 (SR) | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A.1. Income and/or value added | A.1.1. Income | + | + | + | + | + | + | + | + | + | + | – | 10 |
| | A.1.2. Value added | – | + | – | – | + | + | + | + | + | – | – | 6 |
| | A.1.3. Net value added | – | + | – | – | + | + | + | + | + | – | – | 6 |
| A.2. Payments to the government | A.2.1. Taxes and other payments to the government | – | + | + | + | + | + | + | + | + | + | – | 9 |
| A.3. New investments/expenses | A.3.1. Green investments/goods (products) | + | – | – | – | – | + | + | + | – | – | – | 4 |
| | A.3.2. Investments in social sphere (investments in community) | + | – | + | – | – | + | + | – | – | + | – | 5 |
| | A.3.3. Total expenses on research and development | + | – | – | – | – | + | + | + | – | – | – | 4 |
| A.4. Local supply/procurement programs | A.4.1. Percentage of local procurements | + | – | – | – | – | + | – | – | – | – | – | 2 |
| Total, component A | | 5 | 4 | 3 | 2 | 4 | 8 | 7 | 6 | 4 | 3 | 0 | 46 |

*Source:* Summarised by the authors on the basis of the data [50—60].




| | Interval 1 (19—27 compliance indicators) | Interval 2 (10—18 compliance indicators) | Interval 3 (1—9 compliance indicators) |
|---|---|---|---|
| GCI compliance | 4 | 3 | 4 |
| GRI-based | 3 | 2 | 2 |
| Non-GRI | 1 | 1 | 2 |

***Fig. 1.*** Distribution of enterprises by the level of compliance with GCI

*Source*: Summarised by the authors.

*Table 3.* **Assessing the Compliance of Corporate Reporting on the Contribution to the SDG Agenda Based on the GCI, Component B. Environmental Sphere**

| Indicators | | ArcelorMittal Belgium 2016 | Andelula Investment Holdings 2017 | Dialog semiconductor 2018 | Miranda Mineral Holdings LTD 2017 | GRANGES 2016 (AR) | TATA Steel India 2017 (IR) | Doe Run 2016 (SR) | AMG 2016 (AR) | Constellium 2016 (BSR) | Outokumpu 2016 (SR) | Inscape 2017 (SR) | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B.1. Rational use of water | B.1.1. Recycling and reusing of water | + | – | – | – | – | – | + | + | + | + | + | 6 |
| | B.1.2. Efficiency of water usage | + | – | – | – | – | + | + | + | + | + | + | 7 |
| | B.1.3. Water resources load/lack of water | + | – | – | – | – | + | + | + | + | + | – | 6 |
| B.2. Managing wastes | B.2.1. Cutting down on wastes | + | – | – | – | + | + | + | + | + | + | + | 8 |
| | B.2.2. Recycling of wastes | + | – | – | – | + | + | + | + | + | + | + | 8 |
| | B.2.3. Hazardous wastes | – | – | – | – | | + | + | + | – | – | – | 3 |
| B.3. Greenhouse gases emission | B.3.1. Greenhouse gases emission (sphere 1) | + | – | + | – | + | + | + | + | + | + | + | 9 |
| | B.3.2. Greenhouse gases emission (sphere 2) | + | – | + | – | + | + | + | + | + | + | + | 9 |
| B.4. Ozone depleting substances and chemicals | B.4.1. Ozone depleting substances and chemicals | + | – | – | – | – | + | + | – | – | – | – | 3 |
| B.5. Energy consumption | B.5.1. Renewable energy | + | – | – | – | – | + | + | + | – | – | – | 4 |
| | B.5.2. Energy efficiency | – | – | + | – | – | + | + | + | + | + | + | 7 |
| | Total, component B | 9 | 0 | 3 | 0 | 4 | 10 | 11 | 10 | 8 | 8 | 7 | 70 |

*Source:* Summarised by the authors on the basis of the data [50—60].

The data in Fig. 1 show that the defined three groups of enterprises based on the number of disclosed indicators (high, medium, low) chose reporting methods in approximately the same proportion.

At the same time the main thing that attracts attention is the absolute incomparability of non-financial reports between companies both in terms of the form of information presentation and types of indicators. Although all the companies selected for the study belong to the same industry, they have different approaches to information disclosure, although most of them position their reports as sustainability reports. This, of course, is explained by the fact that companies voluntarily join to one or another international initiative on non-financial reporting, determine its format themselves and, finally, belong to different jurisdictions. But it is important to identify and evaluate these discrepancies from the point of view of materiality, impact on the quality of non-financial information, the general logic of the accounting and analytical process and the preparation of comparable reports.

In light of this, lets focus on certain features of information presentation in non-financial reports of selected companies. It is worth emphasizing that these features are identified in the comparison of reporting indicators of companies with the GCI indicator system.

*Table 4.* **Assessing the Compliance of Corporate Reporting on the Contribution to the SDG Agenda Based on the GCI, Component C. Social Sphere**

| Indicators | | ArcelorMittal Belgium 2016 | Andelula Investment Holdings 2017 | Dialog semiconductor 2018 | Miranda Mineral Holdings LTD 2017 | GRANGES 2016 (AR) | TATA Steel India 2017 (IR) | Doe Run 2016 (SR) | AMG 2016 (AR) | Constellium 2016 (BSR) | Outokumpu 2016 (SR) | Inscape 2017 (SR) | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C.1. Gender equality | C.1.1. Proportion of female managers | – | – | + | – | + | + | + | + | – | + | – | 6 |
| C.2. Human capital | C.2.1. Average duration of training per year per employee | + | – | – | – | – | + | + | + | – | + | – | 5 |
| | C.2.2. Cost of training per year per employee with division into categories of employees | + | – | – | – | – | + | + | – | – | + | – | 4 |
| | C.2.3. Salary and payments to the employees with the division into types of employment and gender | – | – | + | + | + | – | – | + | – | + | – | 5 |
| C.3. Healthcare and safety of employees | C.3.1. Cost of healthcare and safety of employees | – | – | – | – | + | + | + | – | + | + | – | 5 |
| | C.3.2. Frequency/number of incidents of occupational injuries | + | – | – | – | + | + | – | + | + | + | – | 6 |
| C.4. Collective labour agreements | C.4.1. Percentage of employees covered by collective agreements | + | – | + | – | + | + | + | + | + | – | – | 7 |
| Total, component C | | 4 | 0 | 3 | 1 | 5 | 6 | 5 | 5 | 3 | 6 | 0 | 38 |

*Source*: Summarised by the authors on the basis of the data [50—60].

*Table 5.* **Assessing the Compliance of Corporate Reporting on the Contribution to the SDG Agenda Based on the GCI, Component D. Institutional Sphere**

| Indicators | | ArcelorMittal Belgium 2016 | Andelula Investment Holdings 2017 | Dialog semiconductor 2018 | Miranda Mineral Holdings LTD 2017 | GRANGES 2016 (AR) | TATA Steel India 2017 (IR) | Doe Run 2016 (SR) | AMG 2016 (AR) | Constellium 2016 (BSR) | Outokumpu 2016 (SR) | Inscape 2017 (SR) | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D.1. Disclosure of information on corporate management | D.1.1. Number of Board of Directors meetings and attendance | – | + | – | + | + | + | – | + | + | – | – | 6 |
| | D.1.2. Number and proportion of female members of Board of Directors | – | + | – | + | + | + | – | + | + | – | – | 6 |
| | D.1.3. Members of Board of Directors with division in age groups | – | – | – | – | + | – | – | + | – | – | – | 2 |
| | D.1.4. Number of Audit Commeettee meetings and attendance | – | + | – | + | + | + | – | + | – | – | – | 5 |
| | D.1.5. Bonuses: Total sum and bonuses per each member of Board of Directors and chief management | – | + | – | + | + | – | – | + | – | + | – | 5 |
| D.2. Anti-corruption practices | D.2.1. Sum of penalties paid or to be paid in accordance with court rulings | – | – | – | – | – | – | – | – | – | – | – | 0 |
| | D.2.2. Average number of hours of training on anti-corruption issues, per year per one employee | – | – | – | – | + | – | – | – | – | – | – | 1 |
| Total, component D | | 0 | 4 | 0 | 4 | 6 | 3 | 0 | 5 | 2 | 1 | 0 | 25 |

*Source:* Summarised by the authors on the basis of the data [50—60].

*Table 6.* **The Results of the GCI-Based Assessment of the Compliance of Corporate Reporting on Contribution to the SDG Agenda**

| Component | ArcelorMittal Belgium 2016 | Andelula Investment Holdings 2017 | Dialog semiconductor 2018 | Miranda Mineral Holdings LTD 2017 | GRANGES 2016 (AR) | TATA Steel India 2017 (IR) | Doe Run 2016 (SR) | AMG 2016 (AR) | Constellium 2016 (BSR) | Outokumpu 2016 (SR) | Inscape 2017 (SR) | Disclosure of information | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Average number of indicators, items | Level of information disclosure, % |
| A | 5 | 4 | 3 | 2 | 4 | 8 | 7 | 6 | 4 | 3 | 0 | 4 | 50.00 |
| B | 9 | 0 | 3 | 0 | 4 | 10 | 11 | 10 | 8 | 8 | 7 | 6 | 54.55 |
| C | 4 | 0 | 3 | 1 | 5 | 6 | 5 | 5 | 3 | 6 | 0 | 3 | 42.86 |
| D | 0 | 4 | 0 | 4 | 6 | 3 | 0 | 5 | 2 | 1 | 0 | 2 | 28.57 |
| Methodology of non-financial reporting | Non-GRI | Non-GRI | GRI-G4 | Non-GRI | Non-GRI | GRI | GRI-G4 | GRI | GRI-G4 | GRI-G4 | GRI-G4 | — | — |
| Total | 18 | 8 | 9 | 7 | 19 | 27 | 23 | 26 | 17 | 18 | 7 | 15 | 45.45 |

*Source*: Summarised by the authors on the basis of the data [50—60].

So, the study showed that companies disclose information in a following manner:

- in relative terms, while GCI proposes to disclose it in absolute amounts, for example, company's expenses on green investments, investments in the social sphere, total research and development expenditures are shown as a percentage of the total expenses; instead of the absolute amount of remuneration of managerial personnel, the maximum percentage of the basic salary of managers is given without specifying it, etc.;
- as a percentage of the increase in the indicators without specifying the base amount (instead of the amount of personnel training costs, the increase in costs per employee by category is shown);
- the total amount for several years: indicators belonging to one area, for example, the company's expenditure on green investments and investments in the social sphere, are shown as one amount for 3 years;
- in-kind, instead of cost indicators, for example, instead of the amount of research and development expenditure, the number of projects implemented by the company is indicated; instead of expenditures for medical care of employees, the number of provided medical services, etc. is indicated.

Some GCI indicators are not included in company reports, but can be easily obtained from disclosed data by calculation (value added, amount of taxes paid, compensation per board member and executive).

The given examples testify to the lack of a unified approach to the methodology of calculating indicators and to the selection of units of measurement of indicators in the non-financial reporting of various companies. The existence of many initiatives and approaches to the formation of a list of quantitative indicators and their calculation methods to some extent explains the obtained conclusion. In particular, the document *Measuring Stakeholder Capitalism Towards Common Metrics and Consistent Reporting of Sustainable Value Creation* [61], issued by the World Economic Forum, contains recommendations for companies to disclose 44 indicators, while GRI — 34, and GCI — 33 [62, p. 16].

At the same time, it is worth emphasizing that such a discrepancy is justified in some cases. It seems that for multinational companies and international holdings in GCI, it is advisable to provide varying approaches based on a number of indicators. Absolute indicators for such companies are not always informative. For example, wages and benefits to employees differentiated by type of employment and gender are provided in the GCI in absolute amounts. However, the remuneration of labor by jurisdiction is carried out in accordance with national legislation and often has a different level for the same professions and qualification characteristics, therefore, when determining general indicators for a company, absolute amounts are not always useful in decision-making.

Summarizing the empirical part of the conducted research, we note that non-financial reporting of the selected enterprises does not sufficiently reflect the results of activities aimed at attaining sustainable development. The average disclosure rate according to the GCI is only 48.48% that is less than a half. Therefore, the reviewed reports are not relevant enough for assessing the contribution of companies to sustainable development. However, it should be emphasized that there is no reason to claim that reporting of these enterprises is unreliable, because all reports have audit confirmation. At the same time, they are incomplete from the point of view of quality for assessing sustainable development of companies. That is why the implementation of the amendments made to the Principles of Corporate Governance of the OECD [63], where Part VI *Stability and Resilience* [2] is introduced, is gaining relevance in the national institutional environment. For companies and investors, it is recognized as an important motivational component aimed at managing

2 Members of the FSB (Financial Stability Board), as well as international organizations, various countries, professional communities, etc. are actively involved in the discussion.

risks, as well as making financial and investment decisions that contribute to strengthening the sustainability of corporations [62]. Since November 2021, revision of the basic document had been in process and was completed last year.

New challenges and risks caused by the COVID-19 pandemic, martial law, acts of terrorism by the russian federation, and phenomena of ecocide in Ukraine require disclosure in non-financial reporting of information on the activities of enterprises, which they carry out to eliminate negative consequences, as well as to strengthen their potential for stress resilience.

The study of initiatives on disclosure of information on the impact of the spread of the coronavirus disease on enterprises and their contribution to overcoming the pandemic made it possible to outline directions for the disclosure of additional information.

Thus, a dichotomous approach is the result of international organizations' efforts to find ways to make information about the current crisis public. It provides, on the one hand, the comparative data by each indicator disclosed in non-financial reporting before the pandemic or another extraordinary event during and after it, and on the other hand, the addition of current international documents with quantitative and qualitative indicators that characterize the impact of COVID-19 and other emergency events on company's performance.

The application of a dichotomous approach made it possible to formulate proposals for supplementing the non-financial reporting of domestic enterprises:

1) comparative indicators that add information on their significance before the pandemic and other extraordinary events, during and after it;

2) new indicators (quantitative and qualitative) that will reveal the impact of COVID-19 and other extraordinary events on company's performance.

Thus, the conceptual approach to determining the content of the report in the context of extraordinary events is that it can be based on unified indicators proposed, for example, by GCI and supplemented with indicators recommended by international documents aimed at revealing the impact of crisis phenomena on company's performance caused by emergency events, in particular a pandemic, and measures to overcome it.

Regarding the pandemic, such documents include the following:

- Framework approach to evaluation and monitoring of World Health Organization data (World Health Organization (2020). Monitoring and Evaluation Framework);
- Notice of the International Organization of Securities Commissions IOSCO/OR/02/2020 dated 05/29/2020 *On the importance of disclosure of information regarding COVID-19*;
- *A UN Framework for the immediate socio-economic response to COVID-19;*
- document of the International Accounting Standards Board *Summary of COVID-19 Financial Reporting Considerations* [63].

While selecting indicators, preference should be given, according to the authors, to those that have defined sources under national legislation. Therefore, most of them will not require calculation, but only will be filled according to the data of the relevant source. However, individual indicators will require easy calculations, such as total amount of taxes and other payments to the goverment, the share of women in managerial positions, etc.

As for the indicators that will characterize the impact of technological disasters, ecocide and other consequences of russia's military aggression and terrorist acts caused by it, the latest international recommendations may be of use:

- WWF (World Wide Fund for Nature) document "Assessing the environmental impacts of the war in Ukraine" [64];
- UNDP "Ukraine Energy Damage Assessment" [65];
- Energy Charter "Cooperation for Restoring the Ukrainian Energy Infrastructure project" [66] and other as support for Ukraine's struggle for independence from the international political establishment.

## CONCLUSIONS

The disclosure standards form the basis for monitoring companies from the point of view of maintaining confidence in the behavior of capital markets, as well as assessments in the conditions of martial law and post-war recovery, pandemics and other emergency events. A tool for protecting investors is the availability of objective information for stakeholders and regulators when making decisions on attracting long-term capital investments. As noted, the negative risks of asymmetry of information increase in emergency situations. At the country level, high-quality infrastructure availability of appropriate reporting makes it possible to objectively assess the contribution of the private sector to the creation of a more stress-resistant economy, and to attract investments from international sources for this purpose [67]. In the context of the development and implementation of Ukraine's post-war recovery plan, as well as in the context of other extraordinary events, it is important to ensure a clear formulation and implementation of conceptual foundations for drawing up national roadmaps for the formation of the relevant infrastructure. The solution to the mentioned problem is possible on the basis of continued work on the unification of indicators and standardization of approaches to the preparation of non-financial statements within the framework of the existing initiatives (ISSB, ESRS standards).

The results of the analysis and the proposals of the authors developed on its basis and set out in the research are aimed at improving the current regulatory and legal acts in Ukraine regarding the implementation of EU directive requirements in the field of non-financial reporting, as well as at the settlement of the issues concerning the organization and administration of relevant databases at the state level to prevent information asymmetry.

## FUNDING OF THE RESEARCH

The paper is prepared within the framework of the project *Fiscal and monetary security of the national economy in the conditions of global challenges and threats related to the COVID-19 pandemic* of the National Research Fund of Ukraine (Project registration number: 2020.01/0546). Project executor: the Academy of Financial Management.

REFERENCES

1. Consequences of the Kakhovka HPP explosion: which settlements were flooded — map. URL: https://fakty.com.ua/ua/proisshestvija/20230612-pid-zagrozoyu-zatoplennya-desyatky-naselenyh-punktiv-karta-naslidkiv-pidryvu-kahovskoyi-ges/ [in Ukrainian] (Last accessed: 26.06.2023).
2. GUR: Explosion of Kakhovka hydroelectric power plant increases the threat of nuclear disaster. URL: https://fakty.com.ua/ua/proisshestvija/20230606-gur-pidryv-kahovskoyi-ges-posylyuye-zagrozu-yadernoyi-katastrofy/ [in Ukrainian] (Last accessed: 26.06.2023).
3. Technical report by the Bureau of the United Nations Statistical Commission (UNSC) on the process of the development of an indicator framework for the goals and targets of the post-2015 development agenda (Working draft). Sustainable Development Knowledge Platform. United Nations. URL: https://sustainabledevelopment.un.org/content/documents/6754Technical%20report%20of%20the%20UNSC%20Bureau%20(final).pdf (Last accessed: 26.06.2023).
4. Hanushek, E. A., Woessmann, L. (2022). The Basic Skills Gap. *Finance & Development,* 6. URL: https://www.imf.org/en/Publications/fandd/issues/2022/06/basic-skills-gap-hanushek-woessmann (Last accessed: 26.06.2023).
5. Marchenko, S. (2022). Strategic public finance governance: European integration course, international trends, national peculiarities. *Finance of Ukraine,* 1, 7—26. https://doi.org/10.33763/finukr2022.01.007 (Last accessed: 26.06.2023).
6. Eisen, N. M., Inayeh, A., Kirkegaard, J., Kleine-Brockhoff, T., Rudolph, J., Stokes, B. (2023). *Toward a Marshall Plan for Ukraine*. Washington DC. 49 p.
7. The World Bank. (2023). Ukraine Rapid damage and needs assessment. 138 p.

8. Iefymenko, T. (2023). Harmonization of the information environment of stress resistance of the corporate sector of the economy. *Economy of Ukraine*, 6, 3—22. https://doi.org/10.15407/economyukr.2023.06.003 [in Ukrainian].
9. Abeysekera, I. (2022). A framework for sustainability reporting. *Sustainability accounting, management and policy journal,* 13(6), 1386—1409. https://doi.org/10.1108/SAMPJ-08-2021-0316
10. Abela, M. (2022). A new direction & The "mainstreaming" of sustainability reporting. *Sustainability accounting, management and policy journal,* 13(6), 1261—1283. https://doi.org/10.1108/SAMPJ-06-2021-0201
11. Nasreen, T., Baker, R., Rezania, D. (2023). Sustainability reporting — a systematic review of various dimensions, theoretical and methodological underpinnings. *Journal of Financial Reporting and Accounting.* https://doi.org/10.1108/JFRA-01-2022-0029
12. de Villiers, C., La Torre, M., Molinari, M. (2022). The Global Reporting Initiative's (GRI) past, present and future: critical reflections and a research agenda on sustainability reporting (standard-setting). *Pacific Accounting Review,* 34(5), 728—747. https://doi.org/10.1108/PAR-02-2022-0034
13. de Villers, C., Dimes, R. (2023). Will the formation of the International Sustainability Standards Board result in the death of integrated reporting? *Journal of Accounting & Organizational Change,* 19(2), 279—295. https://doi.org/10.1108/JAOC-05-2022-0084
14. Amoako, K. O., Amoako, I. O., Tuffour, J., Marfo, E. O. (2022). Formal and informal sustainability reporting: an insight from a mining company's subsidiary in Ghana. *Journal of financial reporting & accounting,* 20(5), 897—925. https://doi.org/10.1108/JFRA-12-2020-0368
15. Fusco, F., Civitillo, R., Ricci, P., Morawska, S., Pustulka, K., Banasik, P. (2022). Sustainability reporting in justice systems: a comparative research in two European countries. *Mediterian accountancy research*, 30(6), 1629—1657. https://doi.org/10.1108/MEDAR-11-2020-1091
16. Iefymenko, T., Lovinska, L., Kucheriava, M. (2022). Reforming information support of public administration in the wartime. *Sci. innov.*, 18(4), 17—24. https://doi.org/10.15407/scine18.04.017
17. Tumwebaze, Z., Bananuka, J., Orobia, L., Kinatta, M. (2022). Board role performance and sustainability reporting practices: managerial perception-based evidence from Uganda. *Journal of Global Resposibility,* 13(3), 317—337. https://doi.org/10.1108/JGR-08-2021-0072
18. Leo, D., Sfodera, F., Cucari, N., Mattia, G., Dezi, L. (2023). Sustainability reporting practices: an explorative analysis of luxury fashion brands. *Management decision*, 61(5), 1274—1297. https://doi.org/10.1108/MD-02-2022-0142
19. Buallay, A. (2022). Sustainability reporting and agriculture industries' performance: worldwide evidence. *Journal of agrobusiness in developing and emerging economies*, 12(5), 769—790. https://doi.org/10.1108/JADEE-10-2020-0247
20. Alsahali, K.F., Malagueno, R. (2022). An empirical study of sustainability reporting assurance: current trends and new insights. *Journal of accounting & organizational change*, 18(5), 617—642. https://doi.org/10.1108/JAOC-05-2020-0060
21. Libanova, E. M. (2023). On the post-war revival of Ukraine: Transcript of scientific report at the meeting of the Presidium of NAS of Ukraine, December 14, 2022. *Visn. Nac. Akad. Nauk Ukr.*, 2, 55—61. https://doi.org/10.15407/visn2023.02.055
22. Heyets, V. (2023). On the question of theory and practice of social quality policy in post-war Ukraine. *Economy of Ukraine*, 4, 3—22. https://doi.org/10.15407/economyukr.2023.04.00 [in Ukrainian]
23. Gritsenko, A. A. (2023). *Nationally Rooted Development in a Divided and Common World. International historical experience of post-war economic reconstruction: lessons for Ukraine*. State Institution "Institute of Economics and Forecasting" of the National Academy of Sciences of Ukraine, Institute of Higher Education of the National Academy of Sciences of Ukraine. NAS of Ukraine", Institute of Higher Education of the National Academy of Sciences of Ukraine, Kyiv, 13 p. URL: http://ief.org.ua/wp-content/uploads/2023/05/Mizhnar-istor-dosvid-povojen-reconstrukcii-uroky-dla-Ukrainy.pdf [In Ukrainian] (Last accessed: 26.06.2023).
24. What is Sustainability Reporting? URL: https://database.globalreporting.org/SDG-12-6/about-sustainablility-reporting (Last accessed: 26.06.2023).
25. Law of Ukraine "On Accounting and Financial Reporting in Ukraine" dated 16.07.99 p. No 996-XIV. URL: http://zakon3.rada.gov.ua/laws/show/996-14 [in Ukrainian] (Last accessed: 26.06.2023).
26. Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting. URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022L2464 (Last accessed: 26.06.2023).
27. International Sustainability Standards Board. URL: https://www.ifrs.org/groups/international-sustainability-standards-board/ (Last accessed: 26.06.2023).
28. Guiding principles Reporting Framework on Business and Human Rights (UN Human Rights). URL: http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf (Last accessed: 26.06.2023).

29. Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups. (viewed at 27.02.2019) URL: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0095&from=EN) (Last accessed: 26.06.2023).
30. Communication from the European Commission. Guidelines on non-financial reporting (methodology for reporting non-financial information) (2017/C215/01). URL: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017XC0705(01)&from=EN (Last accessed: 26.06.2023).
31. Iefymenko, T., Lovinska, L. (2018). Entity's reporting on the contribution towards the attainment of the Sustainable Development Goals: Counteractions to information asymmetry. *Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR). 35th SESSION (24-26 October 2018)*. URL: https://unctad.org/meetings/en/Presentation/ciiisar35_25AM_TIefymenkoLLovinska_en.pdf (Last accessed: 26.06.2023).
32. UNCTAD (2019). *Guidance on core indicators for entity reporting on contributiontowards implementation of the Sustainable Development Goals*. Geneva, 60 p. URL: https://unctad.org/en/PublicationsLibrary/diae2019d1_en.pdf (Last accessed: 26.06.2023).
33. UNCTAD ISAR (2022). *Guidance on Core Indicators for Sustainability and SDG Impact Reporting*. Geneva, 56 p. URL: https://unctad.org/system/files/official-document/diae2022d1_en.pdf (Last accessed: 26.06.2023).
34. The Ten Principles of the UN Global Compact: United Nations Global Compact. URL: https://www.unglobalcompact.org/what-is-gc/mission/principles (Last accessed: 26.06.2023).
35. EFRAG (2022). First Set of draft ESRS & Basis for conclusions. URL: https://www.efrag.org/lab6#subtitle4 (Last accessed: 26.06.2023).
36. European Council (2022). Council gives final green light to corporate sustainability reporting directive. URL: https://www.consilium.europa.eu/en/press/press-releases/2022/11/28/council-gives-final-green-light-to-corporate-sustainability-reporting-directive/ (Last accessed: 26.06.2023).
37. COP26. The Glasgow climate pact. URL: https://ukcop26.org/wp-content/uploads/2021/11/COP26-Presidency-Outcomes-The-Climate-Pact.pdf (Last accessed: 26.06.2023).
38. IFRS Foundation (2022). IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Informations. URL: https://www.ifrs.org/content/dam/ifrs/project/general-sustainability-related-disclosures/snapshot-exposure-draft-ifrs-s1-general-requirements-for-disclosure-of-sustainability-related-financial-information-and-exposure-draft-s2-general-sustainability-related-disclosures.pdf (Last accessed: 26.06.2023).
39. IFRS Foundation (2022). IFRS S2 Climate-related Disclosures. URL: https://www.ifrs.org/content/dam/ifrs/project/climate-related-disclosures/issb-exposure-draft-2022-2-climate-related-disclosures.pdf (Last accessed: 26.06.2023).
40. Pizzi, S. (2018). The Relationship between Non-financial Reporting, Environmental Strategies and Financial Performance. Empirical Evidence from Milano Stock Exchange. *Administrative Sciences,* 18, 8—76. https://doi.org/10.3390/admsci8040076. URL: https://www.mdpi.com/2076-3387/8/4/76/pdf (Last accessed: 26.06.2023).
41. Carini, C., Rocca, L., Veneziani, M., Teodori, C. (2018). Ex-Ante Impact Assessment of Sustainability Information — the Directive 2014/95/EU. *Sustainability,* 10(2), 1-24. https://doi.org/10.3390/su10020560
42. Sierra-Garcia, L., Garcia-Benau, M.A., Bollas-Araya, H.M. (2018). Empirical Analysis of Non-Financial Reporting by Spanish Companies. Administrative Sciences, 8(3), 1—17. https://doi.org/10.3390/admsci8030029
43. IASB (2018). Conceptual Framework for Financial Reporting. URL: https://app1.hkicpa.org.hk/hksaebk/HKSA_Members_Handbook_Master/volumeII/framework18.pdf (Last accessed: 26.06.2023).
44. Lovinska, L. (2020). Some aspects of companies' sustainability reporting. *Finance of Ukraine,* 3, 23—42. https://doi.org/10.33763/finukr2020.03.023 [in Ukrainian].
45. IFRS Foundation. URL: https://www.ifrs.org/issued-standards/list-of-standards/ (Last accessed: 26.06.2023).
46. International Integrated Reporting Council (IIRC). URL: https://integratedreporting.org/the-iirc-2/ (Last accessed: 26.06.2023).
47. The Sustainability Accounting Standards Board (SASB). URL: https://www.cdsb.net/sustainability-accounting-standards-board-sasb (Last accessed: 26.06.2023).
48. Sustanaibility Disclosure Database. URL: https://database.globalreporting.org/search/ (Last accessed: 26.06.2023).
49. ArcelorMittal — Belgium Corporate Responsibility Report 2016. URL: https://database.globalreporting.org/reports/53855/ (Last accessed: 26.06.2023).
50. Andulela Investment Holdings. URL: https://database.globalreporting.org/reports/60857/ (Last accessed: 26.06.023).
51. Dialog Semiconductor Sustainability report. URL: https://database.globalreporting.org/reports/73754/ (Last accessed: 26.06.2023).

52. Union Atlantic Minerals Limited — previously Miranda Mineral Holdings (Miranda) Integrated Report and Annual Financial Statements 2017. URL: https://database.globalreporting.org/reports/60794/ (Last accessed: 26.06.2023).
53. Gränges Annual Report 2016. URL: https://database.globalreporting.org/reports/56915/ (Last accessed: 26.06.2023).
54. Tata Steel Integrated Report & Annual Accounts 2016-17. URL: https://database.globalreporting.org/reports/51599/ (Last accessed: 26.06.2023).
55. Doe Run Company 2016 Sustainability Report. URL: https://database.globalreporting.org/reports/55157/ (Last accessed: 26.06.2023).
56. AMAG Austria Metall Report. URL: https://database.globalreporting.org/reports/69651/ (Last accessed: 26.06.2023).
57. CONSTELLIUM Business and sustainability performance report 2016. URL: https://database.globalreporting.org/reports/57119/ (Last accessed: 26.06.2023).
58. OutoKumpu Sustainability Review 2016. URL:https://database.globalreporting.org/reports/50551/ (Last accessed: 26.06.2023).
59. Inscape Corporation Sustainability Report-2017. URL: https://database.globalreporting.org/reports/52486/ (Last accessed: 26.06.2023).
60. WEF (2020). Measuring Stakeholder Capitalism Towards Common Metrics and Consistent Reporting of Sustainable Value Creation. URL: http://www3.weforum.org/docs/WEF_IBC_Measuring_Stakeholder_Capitalism_Report_2020.pdf (Last accessed: 26.06.2023).
61. Iefymenko, T. (2022). Information and fiscal space to strengthen the resilience of the economy in conditions of sustainable development. *Finance of Ukraine,* 11, 7—18. https://doi.org/10.33763/finukr2022.11.007
62. OECD (2015). G20/OECD Principles of Corporate Governance. OECD. Paris: OECD Publishing, 2015. URL: http://dx.doi.org/10.1787/9789264236882-en (Last accessed: 26.06.2023).
63. Lovinska, L., Oliynyk, Y., Kucheriava, M. (2020). Methodological approaches to assessing companies' contribution to the implementation of SDGs and counteraction to COVID-19. *Finance of Ukraine,* 10, 47—63. https://doi.org/10.33763/finukr2020.10.047 [in Ukrainian].
64. WWF (2022). Assessing the environmental impacts of the war in Ukraine. URL: https://wwfcee.org/news/assessing-the-environmental-impacts-of-the-war-in-ukraine (Last accessed: 26.06.2023).
65. UNDP (2023). Ukraine Energy Damage Assessment. URL: https://www.undp.org/ukraine/publications/ukraine-energy-damage-assessment (Last accessed: 26.06.2023).
66. Energy Charter. Cooperation for Restoring the Ukrainian Energy Infrastructure project. URL: https://www.energycharter.org/fileadmin/DocumentsMedia/Occasional/2023_01_24_UA_sectoral_evaluation_and_damage_assessment_Version_VI.pdfhttps://www.energycharter.org/fileadmin/DocumentsMedia/Occasional/2023_01_24_UA_sectoral_evaluation_and_damage_assessment_Version_VI.pdf (Last accessed: 26.06.2023).
67. UNCTAD (2023). Tackling the Sustainability Reporting Challenge. A Policy Guide. URL: https://unctad.org/system/files/official-document/diae2022d3_en.pdf (Last accessed: 26.06.2023).

**Received 27.06.2023**
**Revised 03.08.2023**
**Accepted 04.08.2023**

*Т.І. Єфименко*[1] (https://orcid.org/0000-0002-9163-3959),
*Л.Г. Ловінська*[2] (https://orcid.org/0000-0001-5427-7185),
*М.В. Кучерява*[1] (https://orcid.org/0000-0003-2948-1234)

[1] Державна навчально-наукова установа «Академія фінансового управління»,
вул. О. Гончара, 46/48, Київ, 01054, Україна,
+380 44 277 5100, afu@afu.kiev.ua
[2] Науково-дослідний фінансовий інститут Державної навчально-наукової установи
«Академія фінансового управління», Київський національний економічний університет імені Вадима Гетьмана,
просп. Берестейський, 54/1, Київ, 03680, Україна,
+380 66 650 8980, documents@kneu.edu.ua

## ЗВІТУВАННЯ ПРО СТАЛИЙ РОЗВИТОК В УМОВАХ НАДЗВИЧАЙНИХ ПОДІЙ

**Вступ.** Реалії воєнного стану в Україні, загрози надзвичайних подій, зокрема пандемій на кшталт COVID-19, катастрофічних наслідків терористичних актів та плани повоєнного відновлення із залученням зовнішнього та внутрішнього фінансування з боку економічних агентів усіх форм власності обумовлюють необхідність подальшого просування концепції сталого розвитку.

**Проблематика.** Відсутність уніфікованого підходу до змісту звітності зі сталого розвитку призводить до низького рівня достовірності, асиметрії, неможливості агрегування статистичної інформації при прийнятті управлінських рішень, зокрема й тих, що стосуються ресурсного забезпечення.

**Мета.** Визначення методологічних підходів стосовно доречності та суттєвості розкриття інформації в нефінансовій звітності компаній; розкриття шляхів дотримання принципів транспарентності та підзвітності щодо стійкого розвитку обраними для проведення аналізу лідерами корпоративного сектору економіки; обґрунтування напрямів використання кращої світової практики звітування у вітчизняному інституціональному середовищі в умовах воєнного стану та повоєнного відновлення.

**Матеріали й методи.** Застосовано методи індукції, дедукції, аналізу, синтезу, методи статистичної вибірки, порівняння, експертних оцінок, асоціацій, аналогій.

**Результати.** Дослідження нефінансової звітності 11 зарубіжних металургійних компаній дало змогу встановити проблемні аспекти даних про сталий розвиток щодо їх доречності та суттєвості. Доведено, що різноманіття методологічних підходів нефінансового звітування призводить до посилення ризиків при прийнятті управлінських рішень щодо стратегій розвитку та залучення ресурсів.

**Висновки.** Результати проведеної оцінки доводять гіпотезу дослідження (H1) в частині того, що уніфікація методології формування показників та стандартизація підходів до складання звітності зі сталого розвитку — основний шлях підвищення результативності державного регулювання та корпоративного господарювання як у стабільних ситуаціях, так і у критичних умовах надзвичайних подій.

*Ключові слова:* звітність зі стійкого розвитку, Директива 2013/34/ЄС, Директива 2022/2464, UNCTAD, ISSB.