

**A. Adambekova<sup>1\*</sup>**, **N. Adambekov<sup>2</sup>**,  
**N. Amankeldy<sup>3</sup>**, **R. Salimbayeva<sup>4</sup>**

<sup>1</sup>Al-Farabi Kazakh National University, Kazakhstan, Almaty

<sup>2</sup>International University of Information Technologies, Kazakhstan, Almaty

<sup>3</sup>Caspian University, Kazakhstan, Almaty

<sup>4</sup>Narxoz University, Kazakhstan, Almaty

\*e-mail: [ainagul.adambekova@kaznu.edu.kz](mailto:ainagul.adambekova@kaznu.edu.kz)

## SCIENTIFIC JUSTIFICATION FOR THE SPECIFIC APPLICATION OF ESG PRINCIPLES

Achieving sustainable development goals, designated by the UN as a key vector of the world order, has become an important guideline in the development of public administration and big business in recent years. The study is aimed at studying features that take into account the results of world research and reflect real trends in the study of problems of achieving sustainable development goals. The research was carried out in several stages: a literature review, identifying patterns and trends in ESG research and conducting a bibliometric analysis based on it. Also, there were studied main prerequisites for the development of ESG principles and ESG reporting, and the regulations accompanying their formation, as well as the current approaches of international organizations in promoting commitment to sustainable development goals. Descriptive types of research (comparison, critical review, argumentation, etc.) are used in the article to review research on ESG practices taking into account global trends. The research covers the period from 2010 to 2023. The results show that the development of National Sustainable Development Standards is not sufficient to create conditions for promoting ESG culture in society. The need for regulations, systemic reporting and ESG reporting methodology, an informal approach to the very commitment of business to ESG on an integrated and systematic basis is justified by a review of the results of advanced and relevant researches on ESG issues. The article is valuable for top managers and executives of organizations, state and local government bodies, as well as researchers interested in promoting the concept of commitment to sustainable development and ESG goals for business.

**Key words:** ESG principles, sustainable development goals, bibliometric analysis, international organizations.

A.A. Адамбекова<sup>1\*</sup>, Н.Т. Адамбеков<sup>2</sup>, Н.А. Амангельды<sup>3</sup>, Р.А. Салимбаева<sup>4</sup>

<sup>1</sup>Әл-Фараби атындағы Қазақ ұлттық университеті, Қазақстан, Алматы қ.

<sup>2</sup>Халықаралық ақпараттық технологиялар университеті, Қазақстан, Алматы қ.

<sup>3</sup>Caspian университеті, Қазақстан, Алматы қ.

<sup>4</sup>Нархоз университеті, Қазақстан, Алматы қ.

\*e-mail: [ainagul.adambekova@kaznu.edu.kz](mailto:ainagul.adambekova@kaznu.edu.kz)

### ESG қағидаларын қолдану ерекшелігінің ғылыми негіздемесі

БҰҰ әлемдік құрылымдықтың басты бағыты ретінде белгілеген тұрақты даму мақсаттарының жетістігі соңғы жылдары мемлекеттік басқару мен ірі іскерлікті дамытуда маңызды бағдарына айналды. Зерттеу әлемдік зерттеулердің нәтижелерін ескере отырып, тұрақты даму нысандары жетістіктерінің мәселелерін зерделеуде нақты үрдістерін көрсететін ерекшеліктерді зерделеуге бағытталған. Зерттеу бірнеше кезеңдерден өткізілді: ESG тақырыбында зерттеулердегі үлгілер мен үрдістерді анықтайтын және соның негізінде библиометриялық талдау жүргізетін әдеби шолу; ESG қағидалары мен ESG есептілігін дамытуға негізгі алғышарттары, және оларды қалыптастырумен байланысты ережелер, сонымен қатар тұрақты даму мақсаттарына ұмтылуды ілгерлетуге көмектесетін халықаралық ұйымдардың қазіргі тәсілдері зерделенді. Зерттеудің сипаттамалық түрлері (салыстыру, сыни шолу, дәлелдендіру және т.б.) жаһандық үрдістерді ескере отырып, ESG тәжірибелік зерттеулерге шолу кезінде мақалада қолданылады. 2010 жыл мен 2023 жылды қоса алған кезеңдегі зерттеулерді қамтыды. Тұрақты дамудың ұлттық стандарттарының әзірленуі қоғамда ESG мәдениетін ұмтылуда жағдайлар жасау үшін жеткіліксіз болып табылды деген нәтиже көрсетті. Ережелердің қажеттілігі, ESG есептілік әдістемелігі мен жүйелік есептілігі, ESG іскерліктің ұмтылудың өзіне кешенді және жүйелік тұрғыда бейресми көзқарасы ESG мәселесі бойынша көкейкесті зерттеулер мен озық нәтижелердің шолуымен дәлелденген және негізделген. Мақала топ-менеджерлерге және ұйым басшылары мен

органдарына, және де іскерлік үшін ESG және тұрақты даму мақсаттарына ұмтылу тұжырымдамасын ілгерлетуге мүдделі зерттеушілерге құнды.

**Түйін сөздер:** ESG қағидалары, тұрақты даму мақсаттары, библиометриялық талдау, халықаралық ұйымдар.

А.А. Адамбекова<sup>1\*</sup>, Н.Т. Адамбеков<sup>2</sup>, Н.А. Амангельды<sup>3</sup>, Р.А. Салимбаева<sup>4</sup>

<sup>1</sup>Казахский национальный университет имени аль-Фараби, Казахстан, г. Алматы

<sup>2</sup>Международный университет Информационных технологий, Казахстан, г. Алматы

<sup>3</sup>Caspian университет, Казахстан, г. Алматы

<sup>4</sup>Университет Нархоз, Казахстан, г. Алматы

\*e-mail: ainagul.adambekova@kaznu.edu.kz

### Научное обоснование специфики применения принципов ESG

Достижение целей устойчивого развития, обозначенных ООН как ключевой вектор мирового устройства, за последние годы стало важным ориентиром в развитии государственного управления и крупного бизнеса. Исследование нацелено на изучение особенностей, учитывающие результаты мировых исследований и отражающих реальные тенденции в изучении проблем достижения целей устойчивого развития. Исследование проводилось в несколько этапов: литературный обзор, выявляющий закономерности и тенденции в исследованиях ESG тематики и проведение на его основе библиометрического анализа; изучены основные предпосылки к выработке ESG принципов и ESG отчетности, и регламенты, сопутствующие их формированию, а также текущие подходы международных организаций в содействии продвижению приверженности целям устойчивого развития. Описательные типы исследований (сравнение, критический обзор, аргументация и др.) используются в статье при проведении обзора исследований ESG практик с учетом мировых тенденций. Проведен охват исследований за период с 2010 по 2023 год. Результаты показывают, что разработка Национальных стандартов устойчивого развития не является достаточной для создания условий продвижения ESG культуры в обществе. Необходимость регламентов, системной отчетности и методологии ESG отчетности, неформальный подход к самой приверженности бизнесом ESG на комплексной и системной основе обоснованы и аргументированы обзором результатов передовых и актуальных исследований по проблематике ESG. Статья представляет ценность для топ-менеджеров и руководителей организации и органов государственного и местного управления, а также исследователей, заинтересованных в продвижении концепции приверженности целям устойчивого развития и ESG для бизнеса.

**Ключевые слова:** ESG принципы, цели устойчивого развития, библиометрический анализ, международные организации.

### Introduction

The implementation of ESG principles, despite their clear regulation, has its own specifics, and since it demonstrates a combination of approaches to management that are different in content, in practice it shows exposure to external and even internal factors. The main message in initiating this study was to study the impact and exposure to these factors, develop measures to mitigate the impact of negative trends and use the benefits to stimulate regional development in the context of achieving sustainable development goals. Global trends in the world economy require the choice of a new foundation for economic transformation. The main problems that dictated the need for the study are the weak level of commitment to ESG principles not only of domestic business, but also of regional governments, demonstrated through the absence or minimal content of ESG information on the activities of economic entities. This will make

it possible to identify methods and mechanisms for the perception of ESG, taking into account global practices and real trends in the national economy, aimed at stimulating its growth. Creating conditions that stimulate the widespread application of ESG principles will ensure the achievability of balanced development of the regions of Kazakhstan and will serve as a trigger for achieving the goals of sustainable development of the national economy. A new approach to the assessment and perception of environmental issues, social aspects of interaction and corporate management practices contributes to the emergence of new risks associated with ESG factors. Conducted research in the works of P. Rossi and others (2023) is devoted to measuring the degree of environmental information disclosure on the websites of the world's largest companies from different perspectives, studying the determinants of information disclosure, and clarifying the correlation of this information to a variety of environmental performance rat-

ings. The basis was data from company websites, annual sustainability reports, financial indicators and environmental assessments in the CDP Rating and Refinitiv ESG Scores (Refinitiv, CDP, 2023). In particular, researchers note different levels of reporting integration, different levels of data relevance across countries, and different approaches to the degree of information disclosure. The observed variations in reporting integration, data relevance, and approaches to information disclosure across countries highlight a significant gap in standardized practices. Therefore, *the purpose of our study is* to identify patterns, approaches and factors that determine promising trends in achieving economic sustainability by assessing business commitment to ESG principles.

**The research methods and methodology** are determined by the following basic principles. At the first stage, a literature review is used, which made it possible to argue the relevance of the research topic, clarify the main approaches and trends in the implementation of ESG principles, and identify the most actively discussed problems that hinder the spread of ESG among businesses. At the second stage, the main stages of the formation of the SDGs and the prerequisites for the development of ESG principles and ESG reporting were studied, and the main regulatory documents accompanying the formation of reporting on sustainable development were clarified. At the next stage, a bibliometric analysis of the main studies was carried out, based on the results of the literature review and which made it possible to establish the main key directions on the topic under study. At the fourth stage, the current approaches of international organizations in promoting commitment to sustainable development goals were studied and conclusions were drawn regarding the patterns, approaches and factors that determine trends in achieving sustainable business development. To analyze the political-level implications of Environmental, Social, and Governance (ESG) factors, we utilized information from various reports, including the Global Reporting Initiative, Global Reporting Initiative Sustainability Reporting Standards, Guidelines for reporting in the field of sustainable development, OECD Guidelines for multinational enterprises, Guidelines for reporting in the field of sustainable development, and other relevant documents. Additionally, we considered data from sources such as Global Fortune 250 and others. To evaluate publication activity in ESG areas from 2010 to 2023, we extracted information from the Scopus database.

## Literature review

The management of modern business reflects new trends in corporate governance, aimed at taking into account the cultural and national characteristics of company employees and consumers, the population of the country in whose territory business activities are carried out. In the process of making management decisions, the results of not only the analysis of financial and economic indicators are taken into account, but also the desire of the business to meet the expectations of society in protecting the environment and preserving natural resources, and building tolerant social relations between people.

Along with this, the culture of ESG business awareness itself requires popularization and development. Some companies, while showing social responsibility in many of their business processes, do not know what and do not know how to reflect this. Other companies, holding one small event, “pump up” it as something of great social significance. At the same time, both do not always understand that informing the community about commitment to ESG principles allows stakeholders to receive non-financial information about the company’s activities. In particular, a study by a group of scientists from Australia emphasizes the idea on shared benefits; idea on stakeholder participation; commitment to scientific research; idea on long-term planning; pricing reforms; fighting corruption, as well as general strengthening of institutional capacity regarding environmental regulation; strengthening regional approaches and international support. According to Howes (2012), ESG involves shared benefits, stakeholder participation, commitment to scientific research, long-term planning, pricing reforms, anti-corruption measures, and the strengthening of institutional capacity for environmental regulation. This definition emphasizes the interconnectedness of economic, social, and environmental aspects within the framework of sustainable development (Howes S., 2012). All this, in turn, allows us to create conditions for the sustainable development of business, and as a result of the region, since the achievement of sustainable development goals is ensured through a commitment to environmental sustainability and corporate culture.

The accumulated results of various scientific research in the field of ESG applications, the impact of technologies that stimulate the environmental transition, storage and capture of emissions, sustainable energy-saving production, cellular

agriculture – all of these are aimed at creating an ecological business environment and contribute to the formation of scientific approaches to the implementation of this research. At the same time, the level of corporate governance largely determines both the environmental management potential of the company itself and its ESG commitment. Thus, the work of the Italian scientist M. Coccia. (2023) identifies and analyzes new ways of technology development that can support the energy and economic transition of countries to sustainable development, reduce environmental pollution, and evaluates some of the factors determining climate change. The results of the work show trends in technological development that support environmental sustainability and can determine the direction of development of scientific research and allow us to assess the commitment of businesses to update technology taking into account global trends. Coccia (2023) focuses on the role of technology in supporting the energy and economic transition towards sustainable development. In this context, ESG is seen as a driver for technological development that can contribute to reducing environmental pollution and addressing factors influencing climate change.

Research of the problems of regional development, inter-firm and interregional interaction, environmental risk assessment and business manifestation of environmental responsibility, taking into account the interests of regional development, touches on various aspects. Thus, commitment to ESG allows a company to demonstrate its corporate responsibility and commitment to green technologies. The author defines ESG as a commitment to green management, environmental sustainability, and responsibility. This perspective underscores the importance of businesses incorporating environmentally friendly practices and taking responsibility for their impact on society (Y. Lietal., 2023). Issues of green management, environmental sustainability, responsibility, challenges and opportunities facing business have become important factors in management decisions, which responsible investors have begun to use on an ongoing basis when shaping their investments (LJóhannsdóttir et al., 2022). This study proposes to apply this approach to regional management. The main emphasis is placed on the fact that regional government bodies, as participants in public, social and economic relations, must understand that a sustainably developing region is the key to stable, balanced development of the national economy, socially oriented management and a

successful reputation. Local executive authorities, as direct interested stakeholders, as well as business participants, must be aware that when assessing the companies, they manage or choose as partners (suppliers, customers, creditors), their impact on society and the environment must be taken into account. Moreover, this impact must be responsible and lead to a positive result, that broadens the scope to include regional development, inter-firm interaction, and environmental risk assessment. ESG, in this context, becomes a framework that encourages companies to consider their impact on the broader regional context, fostering sustainable development. (C. D'Souzaetal., 2022). Presentation of financial and annual reporting in accordance with ESG criteria has become an important confirmation of the quality of governance not only for business entities, but also for government and international governance. (Hongetal T., 2023) At the same time, the reporting format definitely differs depending on the field of activity. The authors (F. Imperiale et al., 2022) in their article raise the question of the existence of a non-linear relationship between the quality of sustainability reporting and ESG performance in the relevant sector (in this study, the service sector). In this study, the authors draw attention to changing regulations and the spread of the trend to introduce strict rules for reporting on sustainable development in certain countries. At the same time, the work notes that this norm causes justified criticism related to the potential discrepancy between indicators of environmental, social and governance factors (ESG) and the quality of sustainability reporting. Within the framework of our study, not only these conclusions are useful, but also the fact that researchers draw our attention to the emergence of reputational risks when presenting such reports and the presence of inconsistencies in them. The authors found that traditional investors are keen to evaluate and acquire companies that provide reporting that integrates ESG criteria. This work is attractive for our project from the point of view of identifying the significance of ESG principles as guiding principles in achieving sustainable development.

In addition, individual studies draw our attention to the need of taking into account the fact that the desire of individual companies (organizations) to demonstrate commitment to ESG using an industry-wide approach is nothing more than a desire to avoid full transparency and an attempt to soften the “sharp edges” of ESG non-compliance. In particular, when the main principle in informing the global community comes down to demonstrating one or two of the three components of ESG through the

prism of its business profile. For example, when the entire report is minimized to an environmentally friendly / green office, as well as to individual elements of social responsibility in relation to clients and employees, but the same time the issues of differences in remuneration of top management and staff and many others are hidden.

E. Bazrafshan (2021) examines the impact of disclosure processing costs in the use of environmental, social and governance (ESG) information by retail and institutional investors, in which the assessment of each company's environmental, social and governance (ESG) performance involves two issues: (1) the high cost of data processing for retail investors and (2) the use of this disadvantage as an advantage for institutional investors. Addressing the increased cost to investors of large amounts of information for each ESG criterion. The conclusions presented in the article are applicable within the framework of our research in the format of taking into account the influence of behavioral expectations on the ranking criteria of both companies themselves and regional authorities.

Overall, the definitions provided by different scholars highlight the diverse dimensions of ESG, encompassing environmental considerations, social responsibility, governance practices, technological advancements, regional impacts, and the importance of transparent reporting for sustainable development. These varied perspectives contribute to a comprehensive understanding of the ESG concept in the academic literature. The literature review of current research shows that the most discussed issues in the implementation of ESG principles are environmental management, environmental sustainability and responsibility, corporate governance principles and corporate culture. This conclusion will form the basis of a bibliometric analysis, which is aimed at clarifying the main approaches to the implementation of ESG principles on the path to achieving sustainable development goals. The literature review comprehensively covers various aspects of ESG principles, but could benefit from deeper exploration of regional perspectives, industry-specific nuances, behavioral influences on decision-making, integration of ESG into core business operations, and the long-term impact of sustainability initiatives for a more detailed understanding. Addressing these gaps would contribute to a more holistic view of the challenges and opportunities associated with implementing ESG principles for sustainable development.

## Results and discussion

The study showed that current research on trends and problems associated with achieving sustainable development reveals issues of environmental management, environmental sustainability and responsibility, principles of corporate governance, social responsibility and corporate culture. This conclusion is used when conducting a bibliometric analysis, which is aimed at clarifying the main approaches to implementing ESG principles on the path to achieving sustainable development goals allows us to identify authors from which countries raise these issues more, which will guide the selection of companies and country factors when preparing research for an indexed journal, as well as the choice of the journal itself.

Examining the studies over time reveals several important findings. On the one hand, this method allows us to assess how the relevance of research changes over time, and if there are observed some serious deviations on positive or negative changes, the researcher's task is to establish the main reasons that mediate them. On the other hand, this method allows us to test the correctness of the conclusions of a literature review. At the same time, the use of an inductive method based on calculating the average value of publication activity for a period and the method of comparison with annual values makes it possible to identify a trend year in which, with relatively stable development dynamics, changes in the activity of the indicator had started.

The conclusions presented in Figure 1 in the form of an assessment of publication activity in the areas of ESG research allow us to conclude that almost all areas have stable growth until 2022, with the exception of studies devoted to the principles of corporate governance. After this period, namely in 2023, except for research on CSR, all publications show a decline in interest. Against this background, the stable level of publications on the topics of corporate governance principles indicates that, in general, these problems are constantly being studied, and, unlike other topics, they are not particularly dependent on external and internal factors. Particular attention is drawn to the indicator on "environmental management" publications. Despite the fact that the literature review showed the importance of this area for ESG issues, the deviation of the average value of this indicator (from the average indicators in other areas) by 2.4 and even 5 times indicates that it is necessary to either exclude these studies as a whole or specify them\ clarify keywords. In this case, a review of the first thousand publications showed that

more than 80% of the studies are directly devoted to environmental protection, and are related to the specialty “ecology” rather than economics. This conclusion dictated the need to exclude this area from the literature review, due to the fact that the bulk of publications are devoted to environmental problems associated with both general consequences

of human activity and characteristics of climate change. The legend of this graph presents the average values for publication activity within these areas of research. Analysis of these values indicates that the main areas of research are grouped according to trajectories that are adequate to each other, which indicates the correctness of the literature review.



**Figure 1** – Publication activity in ESG areas by year  
 Note: compiled from data (Scopus, 2023)

**Table 1** – Publication activity in ESG areas by country for the period from 2010-2023

Country	Eco-sustainability	Environmental sustainability	Corporate culture	Corporate management principles	Corporate social responsibility	Updated rating
UnitedStates	2844 (31)	1220 (13)	2254 (24)	372 (4)	2609 (28)	9299
China	2500 (41)	1254 (20)	715 (12)	126 (2)	1572 (25)	6167
UnitedKingdom	1259 (27)	838 (18)	959 (20)	223 (5)	1469 (31)	4748
Australia	996 (32)	504 (16)	563 (18)	123 (4)	928 30)	3114
Spain	598 (24)	509 (20)	308 (12)	99 (4)	979 (39)	2493
Germany	963 (39)	310 (13)	486 (20)	114 (5)	576 (24)	2449
Canada	904 (38)	382 (16)	384 (16)	81 (3)	645 (27)	2396
Italy	675 (32)	426 (20)	266 (12)	84 (4)	680 (32)	2131
India	544 (29)	321 (17)	324 (17)	67 (4)	639 (34)	1895
France	474 (31)	245 (16)	212 (14)	53 (3)	540 (35)	1524
Netherlands	574 (39)	277 (19)	167 (11)	48 (3)	413 (28)	1479
Malaysia	223 (21)	191 (18)	202 (19)	40 (4)	427 (39)	1083
SouthKorea	195 (19)	119 (11)	176 (17)	18 (2)	545 (52)	1053
Sweden	538 (51)	184 (18)	127 (12)	29 (3)	172 (16)	1050

Table continuation

Country	Eco-sustainability	Environmental sustainability	Corporate culture	Corporate management principles	Corporate social responsibility	Updated rating
Brazil	338 (34)	248 (25)	135 (13)	58 (6)	228 (23)	1007
Kazakhstan	21 (20)	18 (17)	27 (26)	14 (13)	24 (23)	104

Note: compiled from data (Scopus, 2023)

Countries that are ranked higher in the general list  
 Countries that are located below their rating in the general list  
 (lighter background indicates less overestimation or underestimation)

Table 1 presents the results of a bibliometric analysis of studies conducted on topics selected as a result of a literature review at a country level. Analysis at a country level allows us to draw conclusions regarding the countries in which the main researchers are concentrated and, as a result, business practices regarding the implementation of ESG principles. This makes it possible to draw the attention of researchers to the selection of large companies from these countries, since there is no access as such to a single database of sustainable development reports; this method simplifies the work of selecting companies on a country basis. In turn, the use of this method makes it possible to use the ranking method, which also expands our conclusions regarding the identification of factors that determine certain trends in ESG practice. Thus, based on the data obtained, shown in Figure 1, as a result of removing data on the topic “environmental management”, an adjusted ranking of countries was compiled by the level of researchers’ publications. The top five countries include scientists whose affiliations are with the USA, China, Great Britain, Australia and Spain. In general, if publication activity in the area of environmental sustainability averages 31% of total publications for all countries, then only in Sweden (51%) are scientists more actively researching this problem than in other countries. A similar deviation is observed in publications in the field of corporate social responsibility – on average it is 30%, while scientists from South Korea publish 52% of studies on this topic in Scopus. Within the framework of this study, this leads to the conclusion that special attention should be paid to the reports on sustainable development of companies from these countries in order to establish the main reasons and features of such attention to these studies in these countries. Studying publication activity by profile and ratings of journals allows us to obtain additional conclusions on the priority of areas and choice of

journal, which is important so that as many scientists and researchers as possible become familiar with the results of our research, implemented within the framework of Grant funding.

In turn, in different studies, providing the research based on the European countries, authors state that ESG regulation has emerged in response to necessary shifts in corporate operations and global investment practices, particularly in the face of escalating climate impacts. The heightened regulatory emphasis on ESG aligns with and reinforces the existing momentum among corporations and investors, addressing the increasing expectations of various stakeholders. The European Union (EU) has implemented ambitious ESG regulations, affecting aspects such as disclosure, accountability, carbon markets, due diligence, and cross-border trade and investment. These regulations are poised to exert a lasting influence on businesses worldwide. Companies that actively contribute to societal well-being are likely to be better positioned in an evolving business landscape where ESG-compliant regulations are becoming increasingly prevalent (Allamilos and Mariz, 2022). The same practice, is noticed in Asian countries, which is supported by other authors. The establishment of ESG standards in Aisa within the market is a vital prerequisite for countries to align with ESG objectives. Policymakers have the option to define governance frameworks for ESG and extend these exemplary practices to financial entities by mandating that institutions such as banks and insurance companies incorporate ESG considerations into their financing and investment decisions. In this context, it is recommended that banks and potential lenders take into account companies’ ESG ratings as part of their credit assessment process. These initiatives have the potential to positively impact ESG-focused investments.

**Table 2** – Publication activity in ESG areas by journal for the period from 2010-2023

Country	Percentile	Eco-sustainability	Environmental sustainability	Environmental management	Corporate culture	Corporate management principles	Corporate social responsibility	Overall rating	Updated rating
Sustainability Switzerland	Q1(87)	1415	812	5764	156	59	1386	9592	3828
Journal Of Cleaner Production	Q1(99)	494	382	4739	41	27	355	6038	1299
Journal Of Environmental Management	Q1(96)	219	134	5086	0	0	0	5439	353
Iop Conference Series Earth And Environmental Science	Q4(20)	164	107	4447	14	8	0	4740	293
Environmental Science And Pollution Research	Q1(82)	176	102	3051	12	0	0	3341	290
Business Strategy And The Environment	Q1(98)	42	201	550	25	10	219	1047	497
Journal Of Business Ethics	Q1(96)	0	107	0	110	28	679	924	924
Corporate Social Responsibility And Environmental Management	Q1(98)	0	203	0	33	7	510	753	753
CSR Sustainability Ethics And Governance	Q3(33)	0	130	0	69	34	449	682	682
Social Responsibility Journal	Q1(95)	0	75	0	43	12	379	509	509
Emerald Emerging Markets Case Studies	Q4 (7)	0	10	0	50	17	53	130	130

Note: compiled from data (Scopus, 2023)

Journals that are higher than their ranking in the general list.  
 Journals that are located below their rating in the general list  
 Journals that do not publish research in these areas.  
(lighter background indicates less overestimation or underestimation)

Table 2 summarizes the journals with the highest frequency of ESG profile publications across all three pillars throughout the study period. Thus, the data in Table 2 indicate that the first two journals “Sustainability Switzerland” (Swiss publishing house Multidisciplinary Digital Publishing Institute (MDPI), since 2009 in Scopus) and “Journal Of Cleaner Production” (Elsevier, since 1993 in Scopus) specialize as in the publication of scientific research on environmental and socio-economic profiles. The first five journals specialize more in publishing environmental research in ESG topics. The following six journals publish research preferably on a socio-economic profile, although in the journal “Business

Strategy And The Environment” (Wiley-Blackwell (USA) since 1992 in Scopus) you can find a large number of studies on environmental management. In addition, it should be noted that of the 11 journals presented, 2 journals have a low rating and percentile (Q3-Q4), despite the fact that during the study period one of them published 4740 articles (an average of 365 articles per year. Moreover, if in the first journal (conference proceedings) 93.8% is occupied by research on environmental management, then in the second journal Emerald Emerging Markets Case Studies (Emerald Publishing, since 2011 in Scopus) these are studies in all three areas, but despite its profile – social sciences, business and management,



it should be noted that this journal publishes an average of 90 articles per year and, unfortunately, there is a low level of citations. In the case of conference materials, the research profile is clear, since most likely these are thematic conferences in which environmental management problems are discussed.

The conclusions obtained as a result of bibliometric analysis allow us to conclude that interest in ESG research has increased from 1.5 to 3 times in recent years. Undoubtedly, first of all, this indicates that the world community and business entities are increasingly demonstrating their commitment and readiness to achieve sustainable development goals.

However, to justify scientific approaches to the application of ESG principles, it is essential to address a notable gap in the theory of global sustainable development. The literature review and bibliometric analysis results indicate that the existing gap arises from the predominant focus of most researchers on sustainable development issues either within the context of environmental responsibility or from the perspective of corporate social responsibility. Our study has revealed that the chosen scientific direction and its research relevance necessitate a more profound theoretical justification. Specifically, the low awareness of ESG is attributed by experts to a lack of clear understanding of key definitions—ESG principles, ESG commitment, ESG awareness, and ESG culture. The role of ESG itself and the position of corporate social responsibility within the concept of sustainable development introduce certain discrepancies and diverse interpretations. As part of our ongoing project, the research group has undertaken the task of clarifying these problematic aspects. It is evident that, within the framework of a single scientific work, it is impossible to reflect all the discussions and arguments in favor of specific scientific opinions. Nevertheless, within the scope of this article, we present key conclusions. Thus, to develop the main position of the authors, after a literature review and bibliometric analysis, having established a clear definitional gap, we studied the formation of the concept of sustainable development in the context of ESG. The point is that the issue of sustainable development is considered not from the position of global problems of humanity, but from the position of business interests in the general concept of the tasks of sustainable development of the world community.

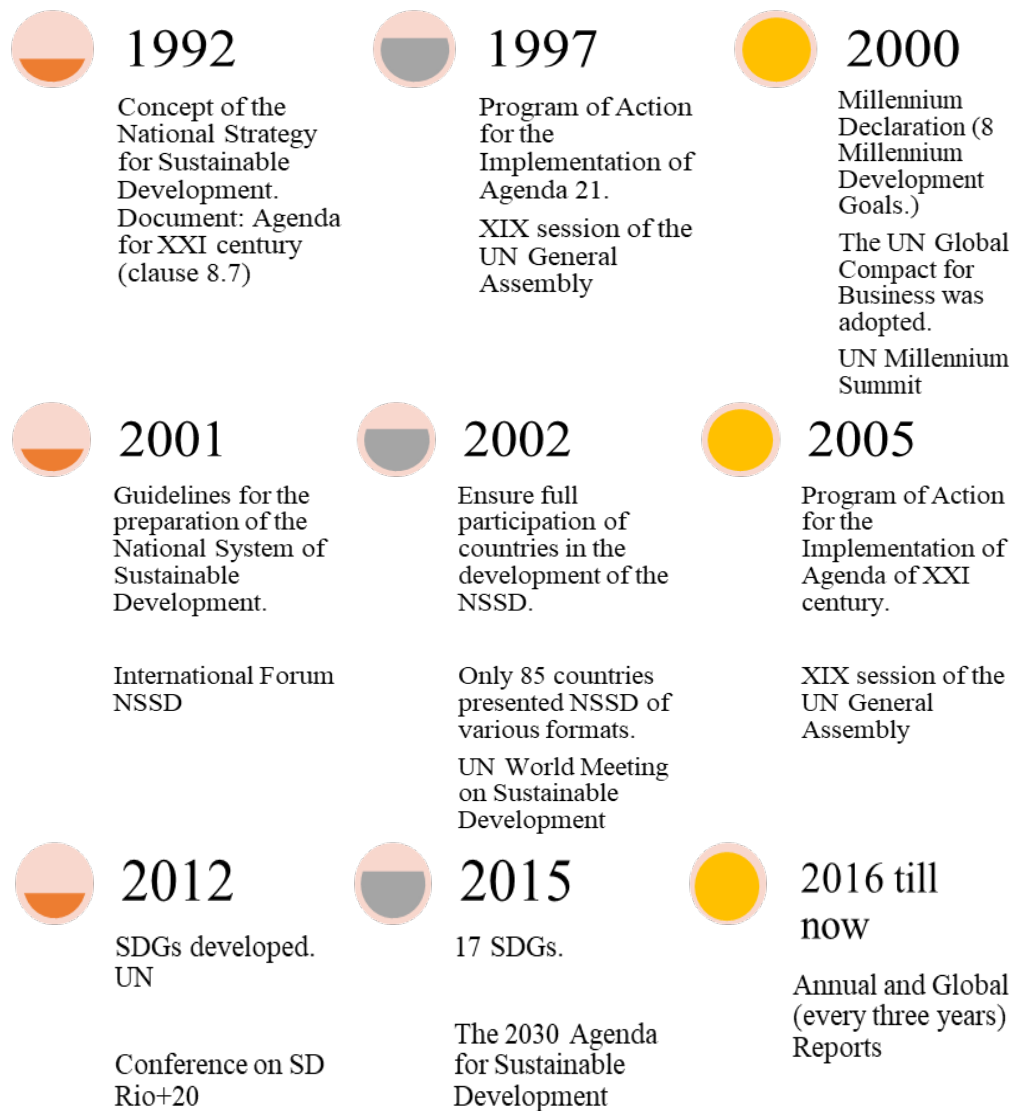
The fundamental documents in achieving the SDGs declared by the UN are undoubtedly the program documents adopted and recommended to UN members and participants at relevant meetings. A brief TimeLine for promoting the values of

achieving the SDGs is presented in the following diagram:

All program documents presented in the diagram define the main key approaches to achieving sustainable development goals. However, it should nevertheless be taken into account that there are more specific regulations that are both mandatory and advisory in nature. For example, the Global Reporting Initiative GRI has introduced three universal standards: GRI 101 “Core Standards”, GRI 102 “General Reporting Indicators”, GRI 103 “Management Approach” and 33 specific standards grouped into three series: Series 200 “Economic Standards”, Series 300 “Environmental Standards” and Series 400 “Social Standards” (GRI, 2016). All these standards form international standards for the preparation of reporting in the field of sustainable development, the Global Reporting Initiative Sustainability Reporting Standards, on the basis of which companies create a report on sustainable development. The sustainability report itself may also be referred to as a corporate social responsibility report, or an environmental, social and governance report, or an ESG report. In addition to the standards themselves, there are various guidebook\guideline – “Guidelines for reporting in the field of sustainable development”, “OECD Guidelines for multinational enterprises”, ISO 26000, Guidelines for reporting in the field of sustainable development and other documents, including those of an industry nature, for example like GRI 11: Oil and Gas Sector 2021 for oil and gas companies. Over the past 20 years, a system aimed at achieving sustainable development goals has been increasingly developed. Today it is a set of regulations, guidelines and documents aimed at helping and supporting companies to identify, collect and inform society in a clear and comparable form about reducing harmful impacts and increasing positive impacts on the environment, commitment to social responsibility and high-standard corporate governance. A lot of researches has been devoted to the issue of popularizing the SDGs and ESG, primarily because SD\ESG reports provide all users with a lot of meaningful non-financial information related not only to the operational results of companies. The reports contain examples and experience that can be adopted both in matters of resolving labor conflicts and in approaches to implementing planned strategies. According to a KPMG study, if in 2017 75% of the largest companies from the GlobalFortune 250 (G250) reported using the GRI reporting system and 63% of the 100 largest companies (N100), then in 2022 from the first group it is already 96%, while for the second group – 71%.

(KPMG, 2017,2022). Along with this, it should be noted that some companies prefer to represent information that reveals more industry characteristics rather than subjectively demonstrating the results of their activities revealing corporate principles

and social responsibility (for example, educational organizations). In this case, as the study showed, it is more proves the desire to become up-to-dated, advanced and increase customer recognition than to prove its ESG commitment.



**Figure 2** – Main stages of development and implementation of SDGs  
Note: compiled by the authors based on materials from the UN Global Report (UN, 2022)

In addition to academic researchers and the UN, international organizations also make a significant contribution to the study of problems of achieving sustainable development goals. As part of this study, the main recommendations and scientific and methodological developments prepared by the IMF, OECD and USAID were studied.

A study of IMF reports and analytical reports, in particular the Global Financial Stability Report

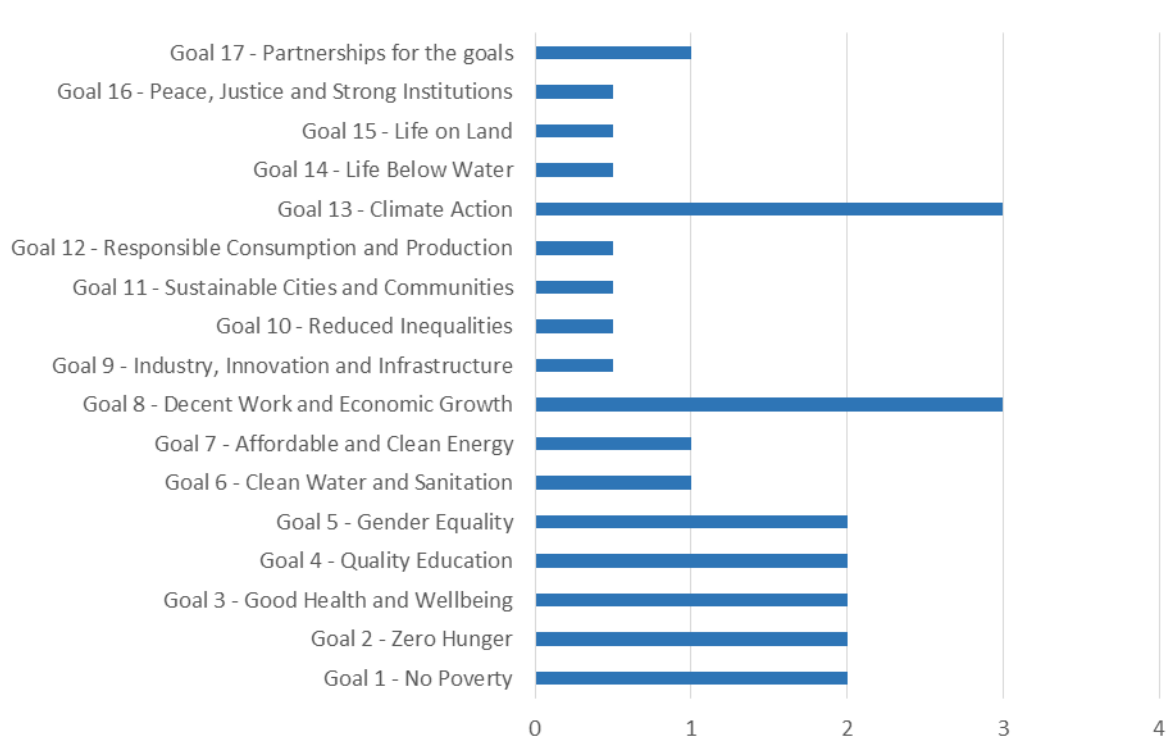
(2023) (GFSR, 2023) and the One Crisis after Another Report (IMF, 2023) showed that the IMF is concerned about the problem of growing external debts of small and emerging market countries against the backdrop of high inflation and geopolitical risks to financial stability. The impact of the energy crisis on the transition to a low-carbon and secure economic system has been exacerbated by the military conflict between Russia and Ukraine. Rising

prices for critical minerals have a negative impact on the economic competitiveness of renewable energy sources. In this regard, the conclusion noted by the IMF regarding the reduction in domestic country investments in the development of low-carbon technologies and, in general, environmental and social sustainability in the last few years is important. It should be noted that the analysis of IMF reports and analytical reports is mainly focused on problems related to sustainable development goals 7 – Affordable and clean energy, 8 – Decent work and economic growth and 13 – Fighting climate change (more detailed conclusions are presented in Figure 3).

The OECD in its research pays special attention to achieving goal 8 – Decent work and economic growth. In particular, this study focuses on two reports: the Country Income Statistics Report and the Consumption Tax Trends Report. The reports summarize tax trends over the past six decades, focusing on tax-to-GDP ratios, tax revenues by type, and taxes by level of government. Particularly noteworthy are the data on the discussion of the treatment of unspent tax credits and information on the financing of social security benefits. Studying

the chapter on “The Impact of COVID-19 on OECD Tax Revenues” allows you to get acquainted with the main trends in demonstrating commitment to the principles of social responsibility, primarily on the part of the state.(OECD, 2022)

USAID in its reports and policy documents (in particular, in the USAID Climate Strategy for 2022-2030) adheres to the achievement of sustainable development goals regarding: 1 – End poverty, 2 – End hunger, 3 – Good health and well-being, 4 – Quality education , 5 – Gender Equality, 6 – Clean Water and Sanitation, 13 – Climate Action, and 17 – Partnerships for Sustainable Development. A key message of USAID is to reduce global greenhouse gas emissions and help partner countries become more resilient to climate change. Since the launch of the Strategy, USAID has increased its climate investments. In FY 2022, USAID conserved more than 60 million hectares of carbon-rich land such as tropical forests, mobilized more than \$340 million in public and private financing to support countries in fighting climate change, reducing emissions, including via competitive auctions for renewable sources of energy and increasing energy efficiency. (USAID,2023)



**Figure 3 – SD goals, the issues of which are the subject of research by international organizations**  
 Note: compiled from data (UN.RIO 20, 2022)

Thus, the study of the main recommendations, scientific and methodological developments and analytical reports of the IMF, OECD and USAID made it possible to identify the most important goals of sustainable development, the achievement of which is set by these organizations as the main current priorities of our time (Figure 3), where the main vector of public interest are: economic growth and the fight against climate change. Equally important are the goals of achieving gender equality, quality education, good health and well-being, and eliminating hunger and poverty.

These findings enable us to highlight the role of business in creating conditions and fostering relationships to achieve sustainable development goals. International organizations, in their activities, emphasize the significance of the collaboration among the three key participants in these relationships: the state, businesses, and the population. The conducted research indicates that the role of business in the overall process was expressed through the formation of ESG principles, which, in our opinion, serve as a triune foundation, the basis for current and future business development. In our opinion, *ESG principles, encompassing environmental, social, and corporate responsibilities, serve as the guiding principles for businesses of all forms, ranging from large multinational and quasi-state companies to small entrepreneurs. These principles demonstrate a commitment to understanding and addressing the impact of business activities on the environment and the community, reflecting a sense of responsibility and care for future generations.* The definition we propose allows us to lay the theoretical basis for a scientific approach to the concept of sustainable development from the perspective of the role of business. Further study of ESG reporting will allow us to develop a reasoned approach to defining the ESG commitment of a business. However, already at this stage, we can assume that ESG commitment of a business should be understood as the company's willingness to consider these principles in managing its business.

The main limitation of this area of research is that there are no clearly defined regulations defining the ESG glossary. Each company discloses its ESG commitment as it deems necessary. Against this background, it should be noted that the awareness of Kazakh business regarding the implementation of ESG principles is currently spreading only among entities of the quasi-public sector (Kazakhmys, 2023). Even commercial banks in Kazakhstan, which seem to receive international investment and credit ratings, do not all report in ESG format,

or this information has very limited content (Kaspi, 2023). The limited information on ESG and the commitment of Kazakh business entities and local governments does not allow us to clearly present the real picture of the implementation of the principles of sustainable development, which, according to the recommendations of the UN, have become an integral part of the development of a civilized society. Despite the presence of various government programs aimed at business development, which open up opportunities for the development of business and certain areas of the national economy, there is low efficiency in the use of allocated funds. Regional authorities do not have a clear understanding of the emphasis on achieving the targeted effect of implemented projects in the shortest possible time. Businesses do not see the potential and significance of applying ESG principles in the context of sustainable development. Regional authorities do not use this potential and opportunities to create conditions for balanced development of regions, which requires the integration of these approaches not only into the investment and production environment, but also into the social block of regional problems being solved. At the same time, some companies may incorrectly use the idea and concept of sustainable development only as a tool for their own social advertising, attracting investment attention, and in some cases, according to experts, as a tool for corporate pressure on international organizations. The study showed that the wide range of information presented (companies can generate both detailed and formalized reports) indicates the need for further in-depth research into the structure of reports and the approaches used in order to develop informed recommendations on the totality of ESG information presented by companies.

## Conclusions

As part of this study, the key task was to uncover the scientific basis for the specific application of ESG principles. The conducted literature review, the application of the principle of historicism in elucidating the origin of ESG, bibliometric analysis and the study of the experience of international organizations in studying the problems of achieving sustainable development goals showed that the specificity of the application of ESG principles is expressed in the following main conclusions.

1. Achieving sustainable development goals requires the world community to fully understand and accept the need for simultaneous and systematic solutions to problems in all three components

– environmental and social responsibility and responsible corporate governance. Half-hearted, or selective, or as they are called, industry sustainability reports neutralize the significance and mislead stakeholders regarding the role and significance of the Sustainable Development Goals in ensuring our today and our future tomorrow.

2. To ensure the conditions for achieving sustainable development goals and popularizing knowledge about ESG, it is necessary to develop not only National Sustainable Development Standards, but also regulations that define the format and mechanisms for the widespread transition to ESG management principles not only in business, but also at the level of state and local government. Kazakhstan's road map for monitoring the achievement of sustainable development goals for 2020-2022 is mainly focused on the development of special statistical reporting and a platform for its launch and analytics (2019). The standard ST RK ISO 2725-2015 (37120:2014) "Sustainable development of cities and communities – indicators of urban services and quality of life" (2015) was canceled from July 1, 2023, which systematized the main regulatory values that define markers for achieving ESG components, from an environmental point of view and socio-economic directions.

3. The results of the bibliometric analysis made it possible to determine the list of countries for which it is necessary to study reports on sustainable business development to further clarify scientific approaches to the application of ESG principles. In addition, the analysis made it possible to determine a list of priority areas of research and journals publishing scientific articles on ESG issues. The conducted research on this issue contributes to the formation of scientific approaches to implementing ESG principles, drawing attention not only to the need for sustainable development but also to the community's understanding of the following key postulates. Sustainable development, as viewed through the lens of the 17 goals as indicators of development, does not simply mean conducting business based on corporate governance principles that emphasize transparency, equality, and responsibility for management decisions. It encompasses running a business while considering the social impact on both the external (in relation to business) and internal (in relation to management) environments. This primarily involves the organization and technological conduct of business, taking into account the environmental consequences for the surroundings. The study has enabled the establishment of the fact that ESG reporting serves as

the foundation for new approaches in the investment analysis of companies concerning the assessment of their investment attractiveness. This indicates the necessity for further study of the structure of ESG reporting in terms of its consistency, comparability, and information sufficiency for investment assessment.

4. Studying the experience of international organizations in studying the problems of achieving sustainable development goals showed opportunities for access to additional sources of data, from which, in addition to the Global Sustainable Development Report prepared by the UN and reports on business sustainability, one can obtain additional information on assessing the achievability and commitment of business\countries' sustainable development goals. The study has facilitated the development of recommendations for further research directions, and provided the author's definition of understanding the principles of ESG and understanding the business's commitment to ESG. In the examination of company reports, especially those from international entities with more extensive experience in ESG reporting compared to those in Kazakhstan, it is crucial to pinpoint key and systemic disparities in the reports of companies within the services sector. Additionally, it is essential to identify core indicators that serve as primary markers of ESG commitment across all sectors, and to conduct a thorough comparison of methodologies employed by rating agencies for sustainability ratings.

5. Sustainable development reporting, containing non-financial information about the company's performance, in addition to the standard principles of sustainable development, such as: openness, accountability, transparency, ethical behavior, respect for the interests of stakeholders, legality, respect for human rights, intolerance to corruption, the inadmissibility of conflicts of interest, and more specific ESG specifications. The conducted research allowed us to conclude that such mandatory indicators of ESG reporting, in our opinion, should be concluded in the principles of sustainable development at all levels of management (from the Board of Directors to line management); analysis of external and internal situations in three aspects of sustainable development: economic, environmental and social; identification of risks in three areas; interaction with stakeholders and building a stakeholder map; integration of sustainable development into key business processes; organizing the process of annual reporting on sustainable development; measuring sustainability performance

*The paper presents the interim results of the study, implemented within the framework of the Grant funding project of the Ministry of Education and Science of the Republic of Kazakhstan for 2023-2025 AR19678012 “The Triune Concept of Sustainable Development (ESG): business interests in the context of balanced regional development”*

## References

1. Alamillos, R. and de Mariz, F., 2022. How Can European Regulation on ESG Impact Business Globally?. *Journal of Risk and Financial Management*, [Online]. 15(7), 291. Available at: <https://doi.org/10.3390/jrfm15070291> [Accessed December 11, 2023].
2. Big shifts, small steps: The KPMG Survey of Sustainability Reporting 2022
3. BUREAU OF NATIONAL STATISTICS (2023) Kazakhstan’s road map for monitoring the achievement of sustainable development goals for 2020-2022. Official Website. Available at: <https://stat.gov.kz/en/sustainable-development-goals/> [Accessed August 12, 2023]
4. CDP Rating (2023) Official Website. Available at: <https://www.cdp.net/en/info/> [Accessed August 11, 2023]
5. Clare D’Souza, Tanvir Ahmed, Amir Khashru, Rafiuddin Ahmed, Vanessa Ratten, Menuka Jayaratne. The complexity of stakeholder pressures and their influence on social and environmental responsibilities.-*Journal of Cleaner Production*.- Volume 358, 15 July 2022, 132038. – <https://doi.org/10.1016/j.jclepro.2022.132038>
6. Coccia M. New directions of technologies pointing the way to a sustainable global society// *Sustainable Futures* 5 (2023) 100114 <https://doi.org/10.1016/j.sfr.2023.100114>
7. Ebrahim Bazrafshan. The role of ESG ranking in retail and institutional investors’ attention and trading behavior. *Finance Research Letters*.- Volume 58, Part C, December 2023, 104462 <https://doi.org/10.1016/j.frl.2023.104462> Get rights and content
8. Francesca Imperiale, Simone Pizzi, Stella Lippolis. Sustainability reporting and ESG performance in the utilities sector. – *Utilities Policy*. – Volume 80, February 2023, 101468 <https://doi.org/10.1016/j.jup.2022.101468> Get rights and content
9. Global Financial Stability Report (by region: Middle East and Central Asia, Asia and the Pacific, Europe, Sub-Saharan Africa, Latin America (Western Hemisphere)) <https://www.imf.org/en/Publications/GFSR/Issues/2023/04/11/global-financial-stability-report-april-2023>
10. Global Reporting Initiative Standards (2023) Official Website. Available at: <https://www.globalreporting.org/>
11. Howes S., Wyrwoll P. “Asia’s Environmental Problems: Common Features, and Possible Solutions”, in Zhang, Y., F. Kimura and S. Oum (eds.), *Moving Toward a New Development Model for East Asia- The Role of Domestic Policy and Regional Cooperation*. ERIA Research Project Report 2011-10, Jakarta: ERIA. – 2012, pp. 55-120
12. Kaspi (2023) “Kaspi” Official Website. Available at: <https://kaspi.kz/guide/ru/bank/> [Accessed August 10, 2023]
13. Kazakhmys (2023) JSC “Kazakhmys” Official Website. Available at: <http://www.kazakhmys.kz/ru/regional-development> [Accessed August 1, 2023]
14. Lára Jóhannsdóttir, Stefan Wendt, Throstrur Olaf Sigurjónsson, Ali Kharrazi, Mauricio Latapí Call for papers special issue: Current and future research in environmental sustainability: Role, responsibilities, and opportunities for the business sector.- *Current Research in Environmental Sustainability* Volume 5, 2023, 100197. <https://doi.org/10.1016/j.crsust.2022.100197>
15. NATIONAL STANDARD OF THE REPUBLIC OF KAZAKHSTAN (2023) ST RK ISO 2725-2015 (37120:2014) “Sustainable development of cities and communities” [https://online.zakon.kz/Document/?doc\\_id=31999274](https://online.zakon.kz/Document/?doc_id=31999274) [Accessed August 14, 2023]
16. National sustainable development strategies UN. <https://sdgs.un.org/ru/topics/national-sustainable-development-strategies>
17. Ng, T. H., Lye, C. T., Chan, K. H., Lim, Y. Z., & Lim, Y. S. (2020). Sustainability in Asia: The roles of financial development in environmental, social and governance (ESG) performance. *Social Indicators Research*, 150, 17-44 [Accessed December 11, 2023]
18. OECD (2023) Official Website. Available at: <https://www.oecd-ilibrary.org/sites/8a691b03en/index.html?itemId=/content/publication/8a691b03-en> [Accessed June 7, 2023]
19. Refinitiv ESG company scores. (2023) Official Website. Available at: <https://www.refinitiv.com/en/sustainable-finance/esg-scores> [Accessed August 7, 2023]
20. The road ahead: The KPMG Survey of Corporate Responsibility Reporting 2017 [assets.kpmg.com/content/dam/kpmg/xx/pdf/2017/10/kpmg-survey-of-corporate-responsibility-reporting-2017.pdf](https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2017/10/kpmg-survey-of-corporate-responsibility-reporting-2017.pdf)
21. Thi Hong Van Hoang, Linh Pham, Thanh Thi Phuong Nguyen. Does country sustainability improve firm ESG reporting transparency? The moderating role of firm industry and CSR engagement. *Economic Modelling*. Volume 125, August 2023, 106351. -<https://doi.org/10.1016/j.econmod.2023.106351>
22. UN (2023) Official Website. Available at: <https://sustainabledevelopment.un.org/rio20/> statements [Accessed May 10, 2023]
23. USAID (2023) Official Website. Available at: <https://www.usaid.gov/reports> [Accessed June 12, 2023]
24. Yan Li, Junkai Wang, Zi Mu, Lingxiao Li The impact of corporate environmental responsibility on green technological innovation: A nonlinear model including mediate effects and moderate effects.- *Economic Analysis and Policy*. – Volume 80, December 2023, Pages 754-769 <https://doi.org/10.1016/j.eap.2023.09.011>