
Knowledge Management versus Implementation of Sustainable Development during Covid-19

Submitted 01/09/22, 1st revision 21/09/22, 2nd revision 11/10/22, accepted 25/10/22

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Abstract:

Purpose: The aim of this publication is to present considerations of KM as a component of SD during Covid-19, i.e. to determine the impact of the pandemic caused by the SARS-COV-2 virus on the achievement of the Sustainable Development Goals (SDGs) in the Anthropocene era.

Design/Methodology/Approach: In order to meet the primary objective, a secondary data analysis was conducted with two survey samples: N1=500 i N2=200, which were conducted by IBRiS on behalf of EY. Quantitative research using numerical measures was carried out to establish the existence of relationships between the studied criteria between 2020-2022.

Findings: 27% of respondents perceive their economic condition negatively, 72% view the overall global economic condition in this way, indicating: higher costs, employment problems. It is not KM and corporate responsibility that are the basis for real action on SD, but national and EU regulations (86%), compliance with which ensures operation, instils confidence in customers and business partners. At the same time, the biggest influence on the implementation of change is the free market itself and the post-pandemic expectations of customers and contractors.

Practical implications: The final impact of the pandemic on the achievement of the SDGs can only be examined after the pandemic has ended. The scenario after analysis of data from 2020-2022 predicts that the pandemic will prevent most development goals pointing to specific key areas for supporting global security presented in the publication.

Originality: Gaps in government statistics, delays in their publication and sometimes reluctance to share information result in gaps in data, creating the need for global investment in the creation of statistical programs and tools, unified and coordinated between both the governments of the world and the various commercial segments, which are sensitive to both individual state economies and the world of science.

Keywords: Sustainable development, knowledge development, sustainability policy, Covid-19, pandemic, SARS-CO-2.

JEL Classification: D8, F0, F63.

Paper type: Research paper.

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1. Introduction

Anthropocene – a geological epoch in which there is a significant human impact on the ecosystem, biodiversity and geological order of the Earth, deposited in fossil footprints. Anthropocene – a term used to describe the current geological era, which was proposed in 2000 by Paul Crutzen – Nobel Laureate in Chemistry (1995). At present, the negative impact of human activities on the functioning of natural processes can already be observed on a global scale. A scale whose progressive nature must be absolutely counteracted (Barrett *et al.*, 2020, pp. 6300-6307; Sterner, Barbier, and Beteman, pp. 14-21).

Hence, the Sustainable Development Agenda – 2030, a follow-up to the Millennium Development Goals, presenting 17 Sustainable Development Goals and 169 related tasks, carrying the mission to transform the world is such an essential element of transformation. It represents a set of individual actions for the benefit of people, the planet, prosperity in general and the spread of the principles of universal peace under conditions of greater freedom (EC, 2020a; 2020b; Palmer, 2020, pp. 185-186).

Its actions are intended to contribute to the eradication of poverty in all its forms and dimensions. The demands of the Organization of the United Nations (UN) form a set of major global challenges and at the same time are integral to the effective implementation of the Sustainable Development (SD) principles (EASAC, 2020; EEA, 2020).

The turbulent economic environment requires the governments of the 193 countries that have joined the alliance to work in partnership and make many changes – including the very understanding of the processes that should be taking place among the community itself – and to set new priorities so that the world understands and chooses the principles of sustainable development (SD) and is permanently willing to follow them. Respecting the human rights of all people and achieving gender equality requires close cooperation and sharing of knowledge and experience (KM) (Probst, Raub, and Romhardt, 2020).

Greater responsibility therefore lies with countries considered to be developed, which should demonstrate a high level of social capital (SC) in order to manage their knowledge resources (KM) to be able to share them with countries at a lower stage of development (Davenport, 1997; Davenport, De Long, and Beers, 1998, pp. 43-57).

The ability to share resources is also an element that determines the effectiveness of the process. Demand for energy and raw materials is increasing as a result of growing populations and increasing consumption, to the point where scientific evidence suggests that humanity will collide with some of the fundamental and limiting capacities of the planet (Leonard-Barton, 1995; Gibb *et al.*, 2020, pp. 398-492; Małecka, 2019b, pp. 661-676; 2018, pp. 485-493).

Wealth and abundance then take on a new dimension: the satisfaction of physiological needs, a sense of security and belonging. Thus, it is food, medicine, and having a home in which to live with dignity, drink healthy water, and sleep soundly that become most important (Bridgman, Cummings, and Ballard, 2018; pp. 81-98). These goods, so obvious to many people in the world, are unfortunately not widely available.

The Sustainable Development (SD) goals treat actions in areas of key importance for humanity and the planet (EC, 2020a; 2020b). The related tasks are interdependent and indivisible and are intended to ensure a balance between three aspects: economic, social and environmental. They focus around: (1) people, (2) planet, (3) prosperity, (4) peace and (5) partnership. Thus, by definition, they are against military action, which has become particularly important for Europe with the beginning of 2022.

The people aspect (1) focuses on the eradication of poverty and hunger in all their forms and dimensions, and is intended to ensure that all people can fulfil their potential. These activities are to be accompanied at all times by a sense of equality, dignity and living in a healthy environment. Planet (2) means building programs to protect it from degradation, inter alia, through sustainable consumption and production, sustainable management of its natural resources and taking urgent action on adverse climate change so that it can serve the needs of present and future generations.

The (3) dimension of well-being, on the other hand, is to ensure that all people living on planet Earth can enjoy the benefits of a prosperous and fulfilling life, in balance with economic, social and technological progress, compatible with nature. Hence, the value of peace (4) by its very nature implies the firm promotion of conflict-free, just and heterogeneous societies free from fear and violence. This means that achieving sustainable development (SD) is not possible without peace (P), and peace (P) is not possible without ensuring sustainable development (SD). The global partnership (5) for sustainable development (SD) should be grounded in the growth of global solidarity, focusing on the needs of the poorest and most vulnerable, with the participation of all countries, all stakeholders and all people. Thus, the interconnectedness and integrated nature of the Sustainable Development Goals (SDG) are key to ensuring that the concept is realized (see also: Roberts, 2022).

As has been indicated, the areas that need attention are many. However, new ones are multiplying, taking on an increasingly violent character, with a global sphere of influence. For the universe and the behavior of humanity in the face of military invasions is taking on a different significance, against the background of which the threats posed by Covid-19 and the pandemic of a few years seem today a trivial problem. For Europe, the ongoing crisis came in 2022 – Russia's armed intervention in Ukraine.

However, one should not forget the Basque-Spanish conflict or the war in Chechnya. Unfortunately, all over the world, attacks of aggression continue unabated. War is present in Asia – mainly on religious and ethnic grounds, in North and South America – mainly on economic and nationality grounds, but most conflicts are fought in Africa – on religious, ethnic and political grounds. Unfortunately, the threat of further variants of the virus still exists, and replacing the issue with another, more recent one creates an illusory solution to a risk that still exists and is growing. The SARS-CoV-2 virus is still present and mutating, taking increasingly advanced forms, while the world community continues to debate the effectiveness and validity of vaccination.

All market activities have an economic basis. The more needs there are, the more funds will be required to meet them. The more new risks arise, the greater the importance of effective cooperation and knowledge sharing (KM) so that the noble principles of sustainable development (SD) can be fulfilled (Davenport, De Long, Beers, pp.43-57; Davenport, Prusak, 1998) (Frame *et al.*, 2020, pp. 271-281).

The evaluation of the issue is measured by a so-called set of global indicators of progress in implementing the postulates and achieving the individual goals (SDGs). The calculation of progress in the implementation of the sustainable development principles takes place at the global as well as regional level on the basis of official statistics provided by individual countries.

The aim of this publication is to present considerations on knowledge management (KM) as an element of sustainable development (SD) at the time of Covid-19. Therefore, in order to achieve the primary objective, an analysis of the impact of Covid-19 on the implementation of sustainable development goals by enterprises in Poland will be carried out and presented, as both the ongoing discourse and ongoing debates should contribute to raising awareness of the need for transformational change and the obligatory nature of heterogeneous policy choices at all levels: municipal, provincial, national, European and global.

2. Materials and Methods

The results of the secondary research carried out between 2020 and 2022 were indisputably covered. The implementation of sustainable development (SD) principles indisputably necessitates the need to raise or mobilize additional financial expenditures, hence it was decided to first present the results in terms of the financial condition of enterprises in the surveyed years of the pandemic and its changes and then to verify the impact of the economic conditions enforced by Covid-19 on the prospects of implementing SD principles in the surveyed enterprises in Poland. Hence, two divergences are presented:

(A): EY_t^I presents results on the health of businesses in the face of the aftermath of the pandemic Covid-19, which was conducted on a sample of $N^I=500$ enterprises

and then companies operating in a nationwide market with a minimum of $W=200$ employees were identified and surveyed:

(B): EY_2^2 on the implementation of the principles of sustainable development (SD), where the value of the sample of the research sample was $N^2=200$, of which:

$N_{34}^2 = 17\%$ publish non-financial reports

$N_{68}^2 = 34\%$, where $W \in [300,5000)$ publishes reports on ESG – factors non-financial factors that help companies report on their activities unrelated to purely economic development indicators, namely: environmental, social and corporate governance.

$N_{94}^2 = 37\%$ have revenues $> \text{€}110$ million

W_{200} = represents a sample of 200 respondents,

where:

EY_1^1 : the survey was conducted by the Institute for Market and Social Research (IBRiS) on behalf of EY (Ernst & Young Global Limited) Ltd., legal entity under UK law in January 2022.

EY_2^2 : the survey was conducted in February 2022.

To obtain the results, mainly quantitative research was carried out, using numerical measures to characterize certain social phenomena or their changes in terms of the number of respondents in favor of the choices included in the survey using a 5 and 7-degree Likert scale and questions allowing the respondents to mark the answers indicated in the survey. On the other hand, descriptive statistics, tables and graphs were used to describe the results of the survey, indicating statistical trends and differences between 2020 and 2022 in order to establish the existence of relationships between the criteria studied.

3. Pandemic and the Sustainable Development Goals

The pandemic has had a serious and negative impact on the achievement of most of the 17 Sustainable Development Goals (SDGs), the evaluation of which can be seen among Asian countries (up to 2020) – the same countries that responded most effectively with their actions to the outbreak of the SARS-CoV-2 virus plague. All countries that signed the UN Declaration have made progress on the SDGs, however, East and South Asian countries have made the most progress on the SDG index score since the adoption of the goals in 2015.

Most pandemic countries have managed to contain the coronavirus outbreak, which did not directly postpone in a positive way into the world's economic situation. Continuous change is shifting the geopolitical and economic global center of gravity from the North Atlantic region to the Asia-Pacific region, implying the effects of the pandemic crisis (Forster *et al.*, 2020).

The leading countries in the implementation and realization of the Sustainable Development Goals (SDG) since the initiation of the idea have been and still are the

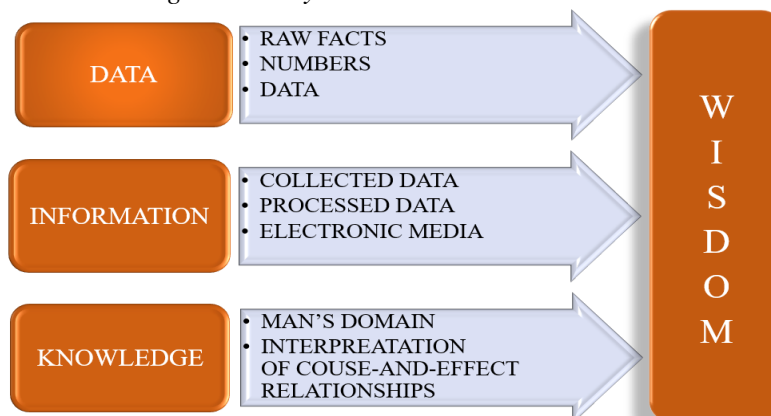
Nordic countries: Denmark, Sweden and Finland, but each of them is facing serious challenges in at least one of the SDGs. When trying to make a sound analysis with the intention of drawing reliable conclusions and defining appropriate recommendations, it is important to have access to authoritative and honest sources.

Gaps in government statistics, delays in their publication and sometimes reluctance to share information result in a shortage of data, which creates the need for a global investment in the creation of statistical programs and tools, unified and coordinated between both the governments of the world and the various commercial segments, which are sensitive both to individual national economies and to the world of science. The speed of receiving and processing data and sharing complex information are closely linked to the criterion of time, which is essential for saving human lives.

These are critical elements in the effective management of the resulting crisis situation (KM) (Małecka, 2019a, pp. 47-57; Davenport, De Long, and Beers, 1998, pp. 43-57; Davenport and Prusak, 1998). There is, therefore, a need for such an ecological system, encompassing interconnected living organisms and the non-living environment - i.e., a bio geosystem, and a new field related to the effective management of knowledge gained along the way (KM).

Then the model of the knowledge hierarchy, which assumes the coexistence of data, information and know-how, takes on a different meaning and achieving a level of wisdom will mean being able to put into practice the resources accumulated along the way (Małecka, 2019a, pp. 47-57; 2019b, pp. 661-676; 2018, pp. 485-493; Probst, Raub, and Romhardt, 2002; pp. 35-36) (Figure 1).

Figure 1. The knowledge hierarchy model



Source: Own model.

The unique character of knowledge having four basic features:

- (1) dominance: giving knowledge – among other accumulated resources – priority and strategic importance, as it influences the competitiveness of enterprises (market position) and favors the achievement of the set objectives,
- (2) inexhaustibility: a resource that does not decrease with use but, on the contrary, the more often it is used, the more its value increases, as the availability of knowledge favors the synergy effect – the greater the number of people using the knowledge resource, the more new elements are added during the interaction of the process,
- (3) simultaneity: the same knowledge can be used by many individuals at the same time and in many places simultaneously, taking into account the risk that the organization may not be the only one to possess and use it,
- (4) non-linearity: there is no strict correlation between the amount of knowledge possessed and the benefits derived from its use, as the knowledge accumulated does not determine the organization's leading position in the market, but the ability to use it appropriately,

which will be able to be explored by all participants of a project constructed in this way, enabling efficient translation of experience gained in other parts of the globe to local needs and crisis foci (Toffler, 1995a; 1995b; 1990; 1980; 1970; Małecka, 2019a, pp. 47-57; 2019b, pp. 661-676; 2018, pp. 485-493).

When reviewing the literature on the subject, one can come across several areas of action, considered by the authors as sustainable development. These will include issues in the area of: (1) green governance, (2) environmental, social and corporate governance, i.e., so-called *ESG* – taking care of climate and natural resources, respecting human rights, taking responsibility for supply chains, management structure or company policy, (3) corporate social responsibility (*CSR*), a mainly corporate activity that aims to conduct business in a responsible manner towards itself, its stakeholders and the public, (4) increasing long-term value of the enterprise, or *LTV*, which is mainly concerned with increasing the long-term value of the business (EASAC, 2022; Foster *et al.*, 2020; Leonard-Barton, 1995; Sherwood *et al.*, 2020; Barrett *et al.*, 2020, pp. 6300-6307; Sterner, Barbier and Beteman, 2019, pp. 14-21).

Therefore, in view of such numerous interpretations of the choice of a possible path for the realization of sustainable development (SD) goals, does the "*future shock*" defined by Alvin Toffler assuming in the third wave the emergence of new technologies enabling "*unlimited communication between individuals through the development of services and the move away from mass production*" become another path (Toffler, 1995a; 1995b; 1990; 1980; 1970).

In terms of the resistance put up and the discourse going on around the implementation of sustainable development (SD), can we say that the world, instead of developing, is going backwards, remaining still in the second wave? The industrial wave, associated with the emergence of industrialism – as mass print

production and modern digitization, production of steel, electricity, new means of transport and mass communication – and global communication, standardization and uniformity?

The assumptions of sustainable development are universal. This means that counteracting climate degradation and change, biodiversity loss and the depletion of the Earth's resources not only requires unambiguous and immediate action but, above all, aims to limit the exploitation of resources whose productivity on the planet is defined in critical units (Frame *et al.*, 2020, pp. 271-281). The pandemic outbreak is not directly correlated with the SDGs, has not changed this state, and has not solved the climate crisis.

Scientists in numerous publications have highlighted the implications of the demand for energy and plant raw materials, which are constantly increasing not only due to the growing trend of human population and the increasing age of survival, but above all to the permanent appreciation of human consumption (EASAC, 2020; Forster *et al.*, 2020; Leonard-Barton, 1995; Wei-Hass, 2021; Barrett *et al.*, 2020, pp. 6300-6307; Sherwood *et al.*, 2020; pp. 14-21).

To be able to develop new social attitudes in this respect, concrete projects and their implementation are needed – i.e., actions linked to the strategic goals of both national governments and individual companies. Thus, from political decision-makers, through people considered to be authorities and creating new trends (also in terms of behavior), to the general public, they should understand the validity of changes and transformations and the necessity of their implementation. Only when the principles of sustainable development are understood, cooperation will be possible, as the circle of supporters will increase (Petit, 1975).

All aspects of operations have to be affected: economic, financial and socio-cultural. This means – especially in the face of a crisis such as a pandemic – talking openly about the systemic and structural failures encountered in individual economies around the world. This applies to both quantitative and qualitative issues.

Open knowledge sharing (KM) underpins the ability to effectively implement sustainable development (SD) changes (Davenport, De Long, Beers, 1998, pp. 43-57). Academics and experts on the topic often take up this research issue to criticize the way things have been done so far – gradual, evolutionary oriented changes that do not bring the expected results, emphasizing the need for fundamental transformations, as only a transformation involving the whole technological, economic and social system can bring the expected results (EEA, 2020). So are we facing fundamental change, transformation or revolution? Which path will achieve sustainable human development?

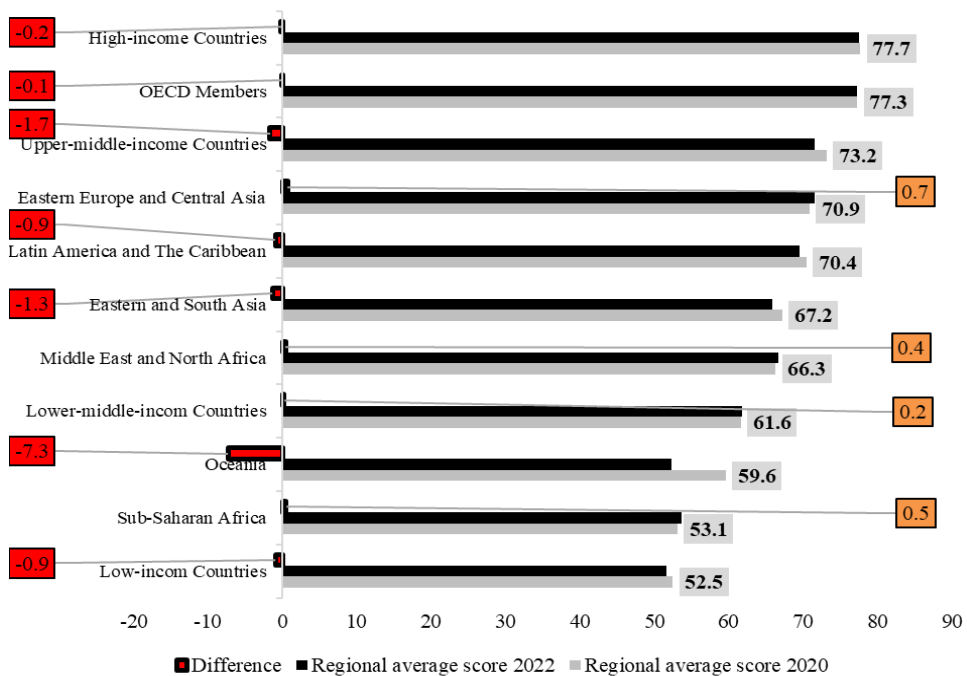
Drawing on knowledge deposits and appropriate knowledge management (KM), it is possible to analyze the current situation and draw on cooperation with countries that

are leading links in the individual 17 goals, on the basis of benchmarking, brainstorming or international discussion forums. Given the complexity of the SDGs, this is possible, as the index also takes into account regional geo-economic and geo-political conjunctures.

By making comparisons on this basis, an indicator has been obtained that allows for positioning and drawing on the practices of leaders in the implementation of the Sustainable Development Goals at the political and governmental level. At the same time, it is important to remember to stop prioritizing at a particularistic level and to start constructing countries' policies in terms of a long-term development strategy – with a priori assumption of personnel changes in the governments of individual countries and political groupings.

The 2020-2022 pandemic years have visibly affected the decline in the implementation of sustainable development principles worldwide, with even economies considered highly developed seeing a decline of 0.2 index points. Even Oceania, which was ranked in the same position in 2020, but with a score of 59.6, declined by -7.3 in 2022. Further declines by size were recorded by the region with Upper-middle-income Countries (-1.7) and Eastern and South Asia (-1.3) (Figure 1) (Sachs *et al.*, 2022; 2020).

Figure 1. *SDG indices for regional average score*



Source: Own elaboration based on Sachs, 2020; 2022.

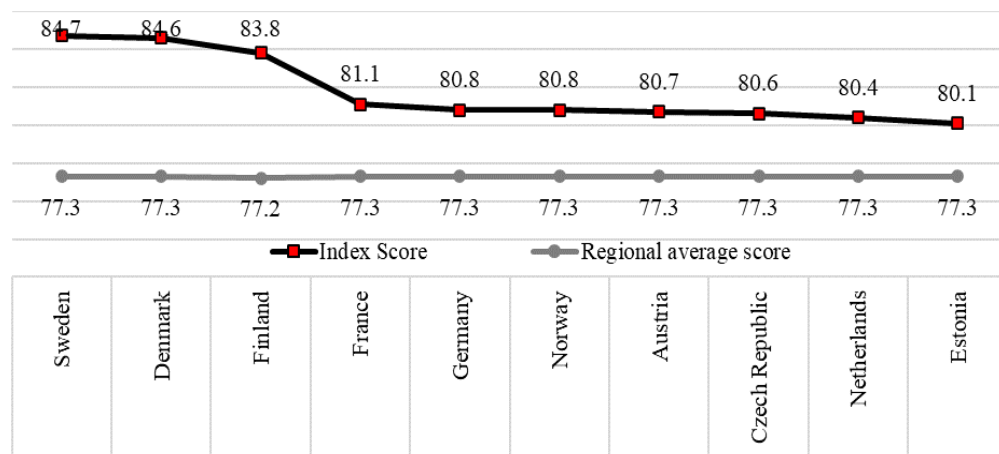
Indicators to facilitate decision-making – i.e., to support effective governance – are urgently needed to encourage human development within the limits of sustainable nature in the first place. In this aspect, decarbonization, for example, should overcome the influence of vested interests of individual countries (Sachs *et al.*, 2022; 2020) (Beteman and Mace, 2020). Following the COVID-19 conference in the Group of Twenty (G20) countries, fossil fuels have already been allocated almost twice the amount allocated to renewable energies in the recovery funds.

Food and agricultural interests, which cause deforestation and overfishing and are still subsidized, avoiding paying for the environmental costs of their activities, are also an important point in the development of the world's regions.

Public awareness is a prerequisite for political action to address long-term issues such as climate change or biodiversity (WHO, 2021). Leading countries in the implementation and delivery of sustainable development (SD) policies should set an example. Governments and NGOs should provide information, share reliable data without introducing disinformation and so-called fake information that does not serve development but only introduces disintegration, chaos and is a source of public fear (Sachs, 2022; 2020). Such consolidated bases require special software to facilitate global and effective knowledge management (KM).

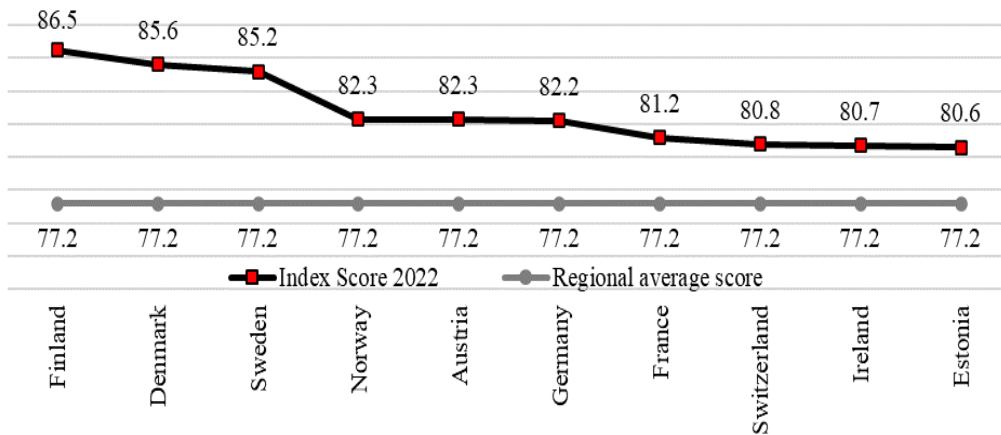
However, it turns out that being a trend-setting leader and a way of operating that enables effective implementation of sustainable development principles is not so obvious, as both a turbulent economic environment and crisis situations, such as pandemic times, can disrupt the effectiveness of actions. It is then important to analyze not so much the position in the ranking as the change in the index score (Figures 2 and 3).

Figure 2. Leading countries in sustainable development according to SDG indicator



Source: Own elaboration based on Sachs, 2022.

Figure 3. Leading countries in sustainable development according to SDG indicator



Source: Own elaboration based on Sachs, 2020; 2022.

It is therefore worth reflecting on the results of the Czech Republic (-0.1), the Netherlands or Belgium (respectively: -0.5, -0.3) and verifying which measures have yielded the greatest increases.

The research community also has a role to play in the whole process, as it can develop better, evidence-based techniques, methods and even tools that synergistically link the issue by involving multiple stakeholders - especially through collaborative research and development.

4. Enterprises in Poland in the Face of the Covid-19 Pandemic

The pandemic Covid-19 revealed many previously overlooked problems in the economies of individual countries that had experienced the infections, restrictions and rigidities implied by the SARS-CoV-2 virus. Health care appeared to be at too low a level both in terms of prevention and vaccines and in terms of treatment (access to medicines and basic hygiene measures, adequately equipped treatment facilities, number of doctors and nurses) (CDC, 2021; WHO, 2021).

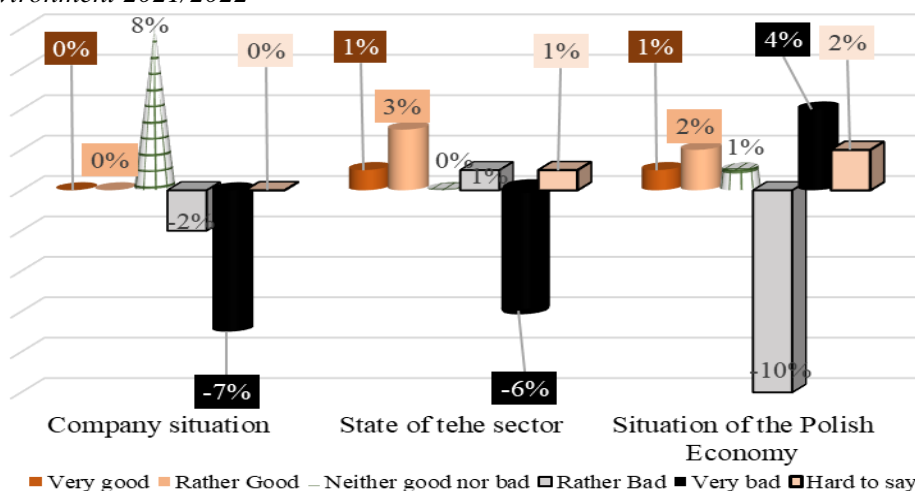
Epidemiological policies were more lenient from 2022 which reduced the obstacles to economic development that coronavirus directly presented. The number of areas of activity that have had to reorganize at a time of austerity, in the area of employment, rising commodity prices, disruption to supply chains and changes to the tax system have meant that the economic environment is perceived to be even more turbulent than anticipated. Economic consequences have also arisen as a result of the war in Ukraine, which has brought already mounting inflationary pressures, as well as rapidly rising interest rates.

Macroeconomic data show an improvement in the overall situation (apart from the inflation rate or financial multipliers), but respondents believe that the impact of the pandemic will be much longer and more severe than they predicted a year ago (January, 2021). An (A): EY₁ survey conducted in January 2022 found that 27% of respondents viewed their condition negatively, with 72% of respondents viewing the overall global economic condition in this way.

The main problems reported by respondents were primarily higher costs of doing business (a trend rising by 24 p.p.) and problems with hiring suitable employees (a trend rising by 20 p.p.) (Petit, 1975). The whole picture in Poland is completed by the uncertainty of running a business related to the changes brought by the government program called Polish Order in 2022, which according to the respondents is holding up investment plans due to constant legislative changes.

A comparative study of the first two years of the pandemic showed a general upward trend in the social mood of entrepreneurs (an increase of 9 p.p.). However, entrepreneurs do not notice any changes for the better in the condition of their enterprises, but they perceive new perspectives for the identical sector, with a simultaneous decrease in entrepreneurs who in 2021 assessed the further development opportunities badly and very badly (respectively: a change of 4 p.p. and an absolute value of |5| p.p.) (Figure 4).

Figure 4. Change in the assessment of the company's situation in the economic environment 2021/2022



Source: Own calculations based on EY, accessed 11.05.2022.

The situation of the Polish economy was assessed unfavorably by as many as $N_{500} = 72\%$ of respondents from (A): EY₁ responds, which is 6 p.p. more positive in 2022 than in the previous year, but still represents almost $\frac{3}{4}$ of the surveyed population.

During the pandemic we could distinguish 14 types of support for entrepreneurs in Poland in 2021 and 16 in 2022, but their availability in the opinion of entrepreneurs was not at the expected level and their effectiveness showed a negative trend in 2022 (Table 1).

Table 1. *Forms of financial support during a pandemic.*

Financial support solutions	2021	2022	Difference	
Hard to say	2%	7%	5%	↑
I do not use support programmes	19%	48%	29%	↑
Other assistance	2%	1%	-1%	↓
Sector-specific solutions	1%	1%	0%	=
Cancellation of tax arrears	1%	1%	0%	=
Polish Tourist Voucher*	2%	1%	-1%	↓
Parking benefits for civil law contracts	4%	1%	-3%	↓
Working capital loans to finance staff salaries	4%	3%	-1%	↓
Parking benefits for self-employed persons	7%	4%	-3%	↓
Loans from the Labour Funds for micro companies	14%	7%	-7%	↓
Co-financing of staff salaries	15%	11%	-4%	↓
Deferment/payment in instalments of ZUS contributions	17%	5%	-12%	↓
Exemption from social security contributions	43%	22%	-21%	↓
Financial Shield of the Polish Development Fund**	44%	21%	-23%	↓
Digital voucher for SMEs***	-	1%	nd	nd
Voivodeship/county programmes	-	1%	nd	nd

* *The Polish Tourist Voucher aims to support Polish families and at the same time the tourism industry during the crisis caused by the COVID-19 pandemic. It is an electronic document entitling to an amount of 500 PLN (approx. 106 EUR) per each child, which can be used until the end of September 2022.*

** *The PFR 2.0 Financial Shield was a program aimed at providing financial assistance to companies in industries that had to reduce or suspend operations due to COVID-19.*

*** *Digital voucher for SMEs - support in the area of digitization, where eligible costs were estimated at between 60 000 – 300 000 PLN (approx. 12 700 – 63 690 EUR), max. co-financing = 255 000 PLN (approx. 54 140 EUR) and min. own contribution = 15%. For approximate calculations, the EUR exchange rate of 24.06.2022 = 4.71 was used.*

**** *Social Insurance Institution (pl. Zakład Ubezpieczeń Społecznych – ZUS)*

Source: *Own study based on EY research, accessed 11.05.2022.*










The forms of financial support that saw a significant drop in use by enterprises during the pandemic period were the Polish Development Fund's Financial Shield and the exemption from Social Insurance Institution (*PL: Zakład Ubezpieczeń Społecznych – ZUS*) contributions. Primarily due to the marginal amounts and high proceduralism in the case of the former, and not really an exemption but a deferral of

liabilities in relation to ZUS. Another implication is that the value of the funds has been reduced by the government, resulting in their limited availability to entrepreneurs in Poland.

To summarize, after 2020 – the first year of the pandemic - entrepreneurs mainly saw problem areas in the epidemiological restrictions, which were the reason for the reduced number of clients and the high costs of running day-to-day business activities (almost $\frac{1}{2}$ and more than $\frac{2}{5}$ of respondents respectively).

The following year – 2021 – indicates threats in the areas of: high costs of running current business activities (24 p.p. increase - applies to over $\frac{3}{5}$ of the respondents) and problems resulting from a further decrease in the number of clients, although in a clear downward trend and from finding employees in a clear upward trend (20 p.p. increase - applies to over $\frac{1}{3}$ of the respondents (Table 2).

Table 2. Problematic areas of doing business in a pandemic economic reality

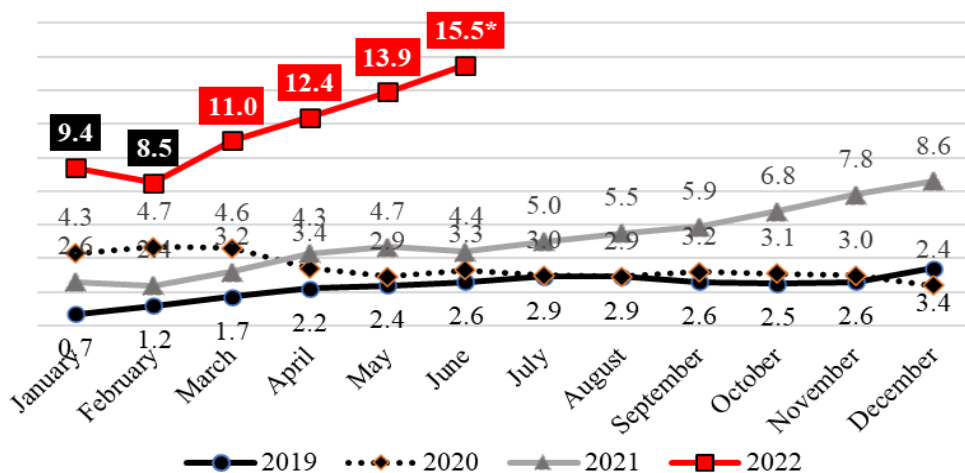
Problematic business areas	2021	2022	Difference	
Hard to say	3%	3%	0%	=
Limited access to credit	7%	4%	-3%	
Other	3%	4%	1%	
Lack or high cost of raw materials	0%	4%	4%	
Payment backlog	23%	14%	-9%	
Limited sales activity	30%	15%	-15%	
Limited service activities	37%	19%	-18%	
Problems in finding employees	16%	36%	20%	
Fewer customers	48%	38%	-10%	
High running costs	44%	68%	24%	

Source: EY's own research, accessed 11.08.2022.

Among the high costs of doing business, inflation and the rising cost of employment and changes in taxes are mentioned most frequently in 2022 (35%, 23% and 23% of respondents respectively). Given the link between the topic of consideration and the principles of sustainable development, it is worth highlighting the declaration of no planned investments by 59% of respondents versus 29% in favor of taking appropriate economic measures in this regard.

The research was conducted in February 2022, before Russia's invasion of Ukraine. Hence, much worse results can be expected now, as inflation in Poland has reached a galloping 13.9% (Figure 5).

Figure 5. Consumer Price Index (CPI) change to the month of the previous year [%]



* The following types of inflation is distinguish: (1) creeping – does not exceed 5%, (2) rolling – exceeds 5%, (3) galloping – exceeds 10.% and (4) hyperinflation – exceeds 100%.
 Source: Own elaboration based on CSO, 2022

Inflation implies higher interest rates, which, on the one hand, will significantly restrict access to foreign capital and, on the other, increase the cost of existing corporate debt. In addition, the increase in prices of raw materials and the weakening of the zloty is reflected in the final price of products and services offered, affecting the reduction in demand. Poland has received over 2 million refugees (of which it is currently estimated that 90% are women and children).

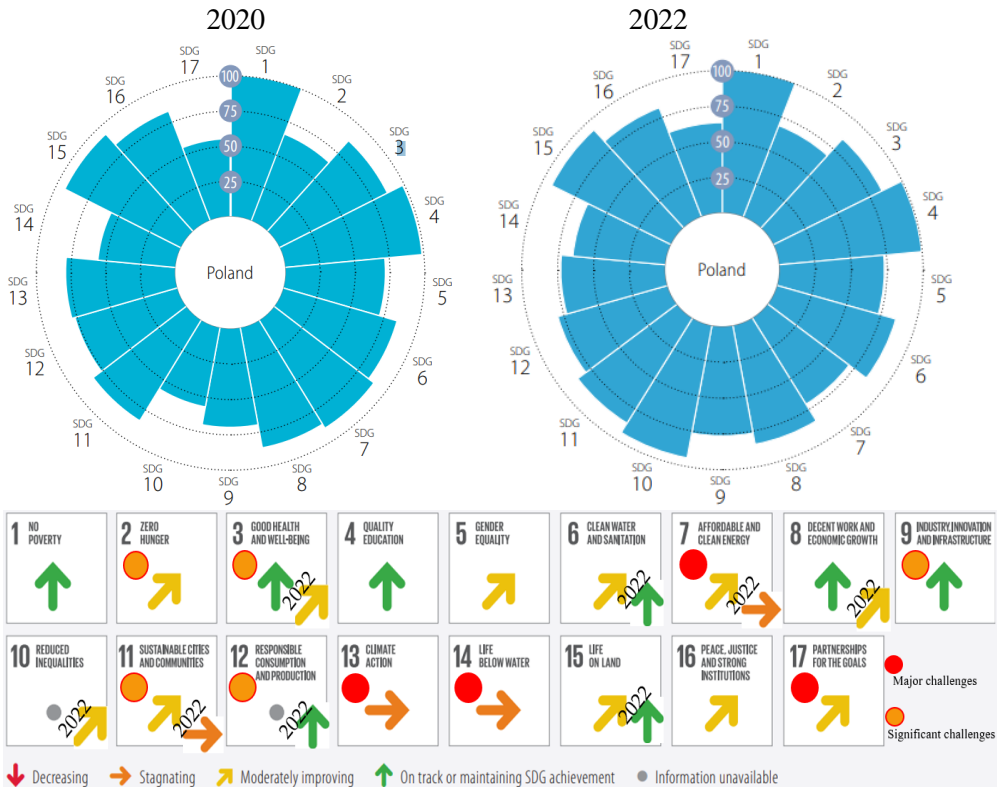
Obviously, their presence will increase consumption, which, however, will mainly be spent from benefits and allowances, i.e. public funds collected by Polish citizens through taxes paid. All these factors influence the growing costs of current economic activity, which affects the economic results of individual enterprises. Worker fluctuations have also occurred in the other direction, although not due to the Covid-19 pandemic – there has been an outflow mainly of men in the construction, transport and industry sectors, who have returned to Ukraine to fight in defense of their country.

5. Does Polish Business Remain on the Path of Sustainable Development?

When examining the level of Poland's evaluation in terms of sustainable development (SD) policy implementation, one should note its 23rd position in the world ranking. The importance of transparency of data sharing (KM) also needs to be emphasized, as Poland did not provide up-to-date information on two of the evaluated criteria: goal 10: reduced inequalities and goal 12: responsible consumption and production.

The results published in 2022 present data taking into account all evaluation criteria and Poland has progressed by 11 positions, ranking 12th in the world with a score of 80.5 against the region's average of 77.2 (Figure 6).

Figure 6. *SDG trends and assessment for Poland.*



Source: Own elaboration based on Sachs, 2020; 2022.

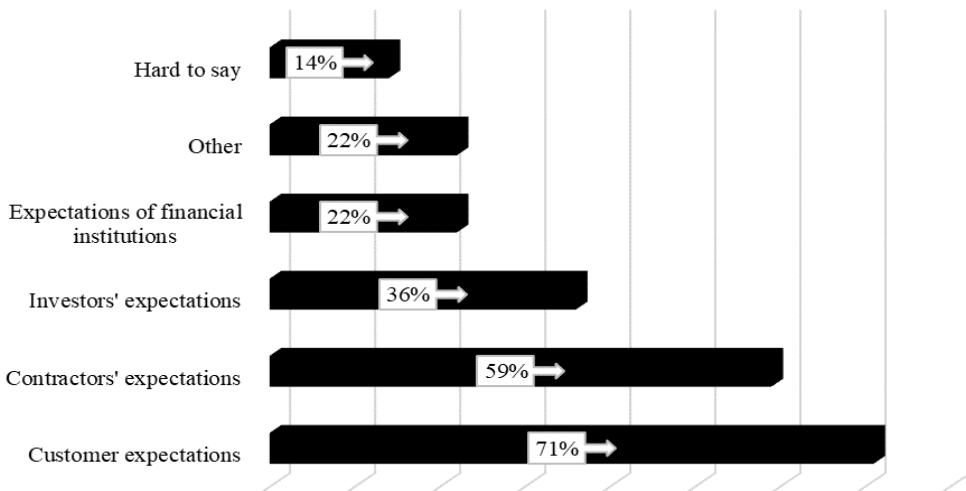
The survey (B): *EY₂* from 2022 showed that unfortunately there is a gap between the declarations of companies operating in Poland and the observed sustainable development (SD) actions. The most significant barrier indicated is the transformation from the concept phase, which was included in the mission of the managed enterprise by 90% of the respondents, to the implementation of concrete sustainability (SD) solutions (Olak, 2022a; 2022b). The declarations made definitely raise the image of the companies, unfortunately, real changes are not initiated according to the internally made proclamation (see also studies: Nonaka and Takeuchi, 1995; Petit, 1975).

The research has shown that it is not the knowledge, awareness and responsibility (KM) of business that underpins real sustainable development (SD) actions, but national and EU regulations (86%), compliance with which ensures business viability, instils confidence in customers and business partners.

Adapting sustainability measures (SD), which are part and parcel of business strategy, is declared by 31% of respondents. At the same time, the biggest influence on the implementation of change is the free market itself, with which the rules of communication have changed dramatically since the pandemic.

It is the expectations placed on entrepreneurs that not only have a sustainable company strategy and mission (SD), but attention to safety and compliance has been enforced by post-pandemic expectations of customers (71%) and contractors (59%) (Figure 7).

Figure 7. Motivations for SD activities of companies in Poland



Source: Own compilation based on EY, accessed 11.05.2022.

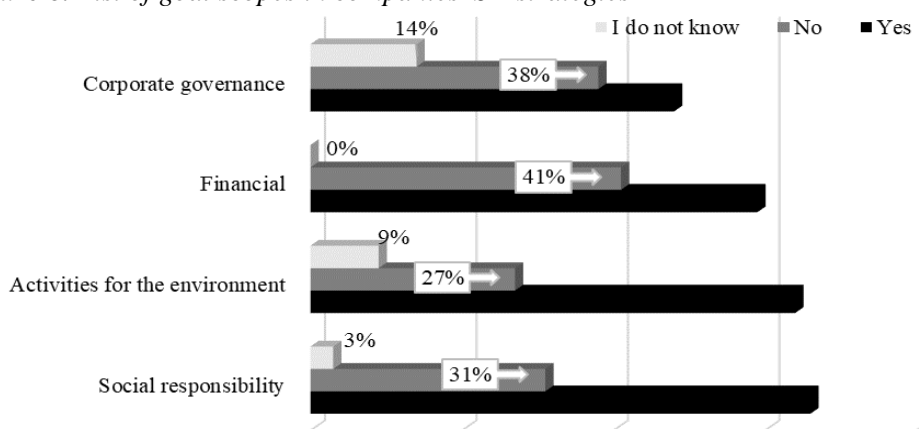
The benefits created along the way tend to be centered around more sustainable products and services, which translate into a strategy for creating competitive advantage. Opportunities are to be found in the future influence of financial institutions in the commercial business world, as these institutions (current share of influence motivation 22%) themselves have sustainability goals written into their strategy, so it may be increasingly difficult to attract external funding – without demonstrating a program of implementation of specific sustainability goals (SD) – when seeking to partner with them.

Contractors also represent a strong group of sustainability goal (SD) influencers (current share of influencer motivation 59%). Global companies, or those involved in internationalization activities, tend to be among the large companies where procedures and transparency of operations are subject to audits. Typically, with such internal requirements, current and potential trading partners are also subject to verification, and the same requirements and criteria are placed on them in terms of compliance and procedures.

Thus, the knowledge management and sharing (KM) element is passed on to the next links in the cooperative chain, which are most often SME companies. On this path, the systematic building of long-term business value should be observed, which should be one of the strategic elements securing the future revenues of companies and their competitive image (see also research: Sherwood and all, 2020).

For these activities to be sustainable, they need to be carried out comprehensively in all areas of sustainability and this was confirmed by 48% of those surveyed. The majority focus their actions only on environmental aspects, which shows a lack of coherence, systematic and comprehensive sustainability actions planned (SD). Survey (B): EY2 showed that 27% of respondents do not envisage activities even in this area in the next 2-3 years of operation (Figure 8).

Figure 8. List of goal scopes in companies' SD strategies



Source: Own compilation based on EY, accessed 11.08.2022.

The lack of integration of SD principles into financial objectives was declared by 41% of respondents, which may be due to post-pandemic financial market instability, limited access to credit and other financial instruments, compounded by the military actions of Russia 2022.

Efforts to incorporate sustainable development (SD) principles into corporate governance objectives were declared by 48% of respondents. This implies a further prospect of inconsistency in action across the organization – at both vertical and horizontal levels. Indeed, it is corporate governance, when properly and optimally designed, that determines the productive pre-orientation of sustainability (SD) strategies.

6. Conclusion

Sustainable development (SD) orientations must be flexible and be adapted to current needs – including crisis actions such as pandemic threats – and their

consequences. The hope is a community identical to Alvin Toffler and the thought called the '*revolutionary premise*': despite the upheavals and upheavals that occur especially with the arrival of wave three, humanity will not be completely destroyed.

However, it is necessary to share the experience and vision gained and to manage its deposits wisely (KM). This is because change now has a global aspect and is therefore cumulative in nature, necessitating the modification of all aspects of life, which influences the evolution and conversion of successive waves of change, also in terms of the original principles of sustainability.

Further economic consequences arise as a result of the war in Ukraine, which brings inflationary pressures that were already intensifying, as well as rapidly rising interest rates and further issues related to refugees, the first objective of sustainable development (SD).

In order to develop new social attitudes towards sustainable development (SD), concrete projects and their implementation are needed – i.e. actions linked to the strategic goals of both national governments and individual companies. Hence, from political decision-makers to those in authority and those who create new patterns – also behavioral trends under the general public – should understand the validity of changes and transformations and the necessity of their implementation. Only when the principles of sustainable development (SD) are understood will cooperation and the sharing of experience and knowledge (KM) be possible, as the circle of "*enlightened*" people will grow.

At the commercial market level, the level of sustainability information provided by companies does not meet the needs of all stakeholders. There are also successive EU directives significantly expanding the mandatory scope of actions and guidelines resulting from successive reports. Thus, it is about action in a continuous process that should be environmentally sensitive. When introducing sustainable development (SD) issues, entrepreneurs should think comprehensively and coherently internally – something that is often forgotten by entrepreneurs in Poland, who focus mainly on ecosystem or pro-social activities (SDGs for Poland are ranked 23rd).

However, this is mainly related to competitive pressures or legislator requirements and is not linked to the implementation of corporate governance and coherence of activities. Lack of awareness in this respect may lead to certain risks, such as negative verification by international business partners who conduct their activities on the basis of broader standards and transparent procedures, or when seeking external financing. Benchmarks, however, should be promoted by a government that does not make all the necessary data public and does not share its experience and knowledge (KM) on the proper implementation of the Sustainable Development (SD) goals.

Researchers in numerous publications on the subject point out that in the long term, the implementation of the Sustainable Development Goals (SD) cannot be voluntary. In conclusion, recognizing the new realities will require a change in the way change management (KM) is managed and implemented. The need for such action is demonstrated, for example, by the level of achievement of the Paris Agreement targets (2016).

Climate warming is progressing too fast, and positive feedbacks point to the impossibility of saving the Earth from dangerous climate change. The dilation in the reduction of greenhouse gas (GHG) emissions, is steadily increasing and even the economic tightening of the last two years and the constraints as a result of the COVID-19 pandemic have not reduced emissions to levels compatible with the Paris Agreement.

Massive deforestation, uncontrolled and exploratory agricultural expansion, mining and infrastructure development, as well as exploitation of wild species, are among the growing opportunities for wildlife-to-human transmission of diseases – such as the former HIV virus and now, for example, Monkeypox – that continue to pose a serious threat of another pandemic.

The survey described above involved 500 entrepreneurs who rated the state of the Polish economy as bad ((A)” EY₁, N₅₀₀= 72%). The 2022 result is 6 p.p. more positive than 2021. After 2020 – the first year of the pandemic – entrepreneurs mainly saw problem areas in the epidemiological restrictions, which were the reason for the reduced number of customers and the high costs of running current business activities (almost ½ and more than 2/5 of respondents respectively).

The following year identified risks in the areas of high costs of running day-to-day business activities (up 24 p.p. – affecting more than 3/5 of respondents) and problems resulting from fewer customers, albeit in a clear downward trend, and from finding staff in a clear upward trend (up 20 p.p. – affecting more than 1/3 of respondents). In order to be sustainably achieved, actions need to be carried out comprehensively in all areas of sustainability and this was confirmed by 48% of respondents.

The majority of respondents focus their activities only on environmental aspects, which indicates a lack of coherence, systematicness and comprehensiveness of planned sustainable development (SD) activities. The research (B): EY₂ showed that 27% of respondents do not envisage activities even in this area in the next 2-3 years of operation, due to the need to incur additional costs related to the consequence of the economic restrictions caused by COVID-19.

An analysis of countries' achievements in implementing the SDGs during the 2020-2022 pandemic period, allows for the identification of key areas to support global security:

- effective and rapid dissemination of best practices - thus the knowledge management (KM) process
- targeting areas particularly vulnerable to hunger
- setting up effective social assistance programs
- dissemination of new drugs and vaccines
- placing the general interest above the particular economic interests of individual countries and industries
- shift economic planning towards long-term thinking
- take advantage of the new pandemic situation and the global economic crisis to bring about rapid economic transformation
- replace subsidies with positive incentives for environmental responsibility with subsidies with undesirable effects
- applying an integrated approach to decision-making across sectors and jurisdictions
- taking preventive and precautionary action to avoid, mitigate and remediate the state of nature
- reducing the ability of governments to plan and implement policies with a time horizon of decades that span multiple electoral cycles
- eliminating lack of public understanding and resistance to change
- strengthening financing mechanisms for developing countries
- engaging industry and the financial sector to drive these changes and engage public opinion.

Effective governance requires access to reliable information and an extensive system of indicators to facilitate sound decision-making. It seems essential to create a system of reliable and equivalent metrics to replace GDP with measures of real prosperity, which is based on the exploitation and destruction of planet Earth's resources.

Starting with at least the basic objective of wealth inequality and consumption disparities between individuals, which must be addressed by any society participating in the transition process, will influence the consciousness of the human collective so that the transition process can adopt a faster and more effective implementation.

The example of Poland and the achievement in SD target 1 (no poverty) and the decrease in achievement in targets: 2 (zero hunger, which is a significant challenge for Poland) and 3 (good health and well-being, also significant challenge) as well as 11, which are evidently correlated by the society link seem to be contradictory.

After all, how does meeting criterion 1: zero poverty compare to not meeting criterion 2: zero hunger and 3: good health and well-being. This sets the next direction of research, which will be to verify the statistics reported by the Polish government to international reports and to verify the feelings not only of entrepreneurs but also of workers about the SD principles in their economic environments.

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