Ministry of Education and Science of Ukraine
Ukrainian-American Concordia University
Department of International Economic Relations, Business & Management

Bachelor's Qualification Work

2030 Sustainable Development Goals (SDGs) of the UN and Economic Growth (on the basis of Naftogaz company)

Bachelor's student of
Field of Study 29 – International Relations
Specialty 292 – International Economic Relations
Educational program – International Business

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Kyiv – 2022

Mykhailo Tarakanov

2030 Sustainable Development Goals (SDGs) of the UN and Economic Growth (on the basis of Naftogaz company)

The paper explores one of the most critical topics today - sustainable development, which means development in economic, environmental, and social terms. The long-term global economic development, aimed only at profit maximization and cost minimization and with no other fundamentals, has led to severe degradation of the natural, social, and even spiritual environment. The article takes a theoretical approach, namely an analysis of the creation and development of the concept of sustainable development.

It analyses 17 goals, on different levels, whether global, regional, and national, as an opportunity to protect and improve people's lives. The objectives within each goal may also be intertwined with each other. There are many limits to the transition to sustainable development, even on the part of businesses.

The practical part of the research focuses on the Naftogaz company. It is an example of how business in Ukraine may influence its development in economical, ecological, and social terms. As far as Ukraine is concerned, perspectives and preconditions for the development and inclusion of sustainable development in the country's life are being created. To achieve sustainable development goals in the country, the active participation of the government, businesses, and residents is required.

Key words: sustainable trend, Ukraine, perspectives, economic, environment, society, quality of life, opportunities, natural resources, investment, management, legislation, indicators, norms.

У статті розглядається одна з найбільш важливих тим на сьогоднішній день - сталий розвиток, що означає ріст в економічному, екологічному та соціальному плані. Довгостроковий глобальний економічний розвиток, спрямований тільки на максимізацію прибутку і мінімізацію витрат і не має ніяких інших основоположних принципів, що призводить до серйозної деградації природного, соціального і навіть духовного середовища. У статті використовується теоретичний підхід, а саме аналіз створення та розвитку концепції сталого розвитку.
Проведено аналіз 17 цілей на різних рівнях, будь то глобальний, регіональний або національний, як можливість захистити і поліпшити життя людей. Цілі в рамках кожної мети також взаємопов'язані один з одним. Існує багато обмежень для переходу до сталого розвитку, навіть з боку бізнесу.
Практична частина дослідження зосереджена на компанії "Нафтогаз". Це приклад того, як бізнес в Україні може вплинути на її розвиток в економічному, екологічному та соціальному плані. Що стосується України, то створюються перспективи і передумови для розвитку і включення сталого розвитку в життя країни. Для досягнення Цілей сталого розвитку в країні потрібна активна участь уряду, бізнесу і жителів.

Ключові слова: стійкий тренд, Україна, перспективи, економіка, навколишнє середовище, суспільство, якість життя, можливості, природні ресурси, інвестиції, управління, законодавство, показники, норми.

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TASK
FOR BACHELOR'S QUALIFICATION WORK

MYKHAILO TARAKANOV
(Name, Surname)

1. Topic of the work: 2030 SUSTAINABLE DEVELOPMENT GOALS (SDGS) OF THE UN AND ECONOMIC GROWTH" (on the basis of NAFTOGAZ COMPANY)

Supervisor of the work Dr of Sci. in Economics, L.V. Zharova
(surname, name, degree, academic rank)

Which approved by Order of University from "22" December 2022 №22-12/2022- 1C

2. Deadline for bachelor's qualification work submission "19" May 2022

3. Data-out to the bachelor's qualification work materials received during the internship, data from the open sources, results from the previous research works during studies, like projects and course-work

4. Contents of the explanatory note (list of issues to be developed) The structure of the work allows building the analytical study from the theoretical framework of sustainable development goals to implementing the concept of sustainable development in the case of NAFTOGAZ COMPANY. The idea of the study is based on the assumption that high priorities for Ukrainian social-economic development are energy independence and sustainable development. The chosen enterprises allow to research these aspects and compose recommendations for developing the company's management.

5. List of graphic material (with exact indication of any mandatory drawings)
Graphs, tables, and figures that illustrate the financial situation in the branch and enterprises, illustration of overall characteristics of the competitiveness in the branch

6. Consultants for parts of the work

Part of the project	Surname, name, position	Signature, date	
		Given	Accepted
1	L.V. Zharova		
2	L.V. Zharova		
3	L.V. Zharova		

7. Date of issue of the assignment

Time Schedule

№	The title of the parts of the bachelor's qualification work	Deadlines	Notes
1.	I chapter	14.02-13.03.2022	In time
2.	II chapter	14.03-10.04.2022	In time
3.	III chapter	11.04-24.04.2022	In time
4.	Introduction, conclusions, summary	25.04 – 01.05.2022	In time
5.	Pre-defense	08.06.2022	In time

Student _____
(signature)

Supervisor_____
(signature)

Conclusions: The study's main hypothesis is the possibility of simultaneous energy security and sustainable development in the context of post-war reconstruction of the country's economy. The student conducted a thorough study within its competencies and available materials. Based on the results obtained, specific recommendations in the field of company management were formulated. All formulated tasks were completed. The work contains a sufficient amount of analytical and illustrative materials. Analysis of literature sources allows us to say about the adequate level of elaboration of the problem.

Work can receive a high grade in case of good public defense.

Supervisor_____
(signature)

Table of content

ABBREVIATION

BCG	-	a tool for strategic analysis and planning in marketing.
CE	-	circular economy
CEO	-	Chief Executive Officer
CSD	-	Commission on Sustainable Development
DELC	-	Division of Environmental Law & Conventions
ECOSOC	-	Economic and Social Council
ESG	-	Environmental, Social, and Corporate Governance
GDP	-	Gross domestic product
GRI	-	Global Reporting Initiative
HIV	-	human immunodeficiency viruses
ICAO	-	International Civil Aviation Organization
IMF	-	International Monetary Fund
IT	-	Information Technology
MDB	-	Multilateral Development Banks
NVAD	-	net value added
PET	-	Polyethylene Terephthalate
PWC	-	PricewaterhouseCoopers
SASB	-	Sustainability Accounting Standards Board
SD	-	Sustainable Development
SDG	-	Sustainable Development Goals
SEC	-	Securities and Exchange Commission
UN	-	United Nations
UNDP	-	United Nations Development Programme
UNEP	-	United Nations Environment Programme
VAD	-	value-added
WCED	-	World Commission on Environment and Development
WTO	-	The World Trade Organization

INTRODUCTION

This paper is devoted to the research in the field of sustainable development and concerns the investigation of the concept advancement. Sustainable development was one in every of the foremost questioned problems in the past decades. It affects essential areas such as gender equality and equity in general, eradicating poverty, eliminating hunger, sustainable economic growth, environmental conservation, outstanding education, and reconstructing the condition of life. All these problems are relevant and concern all countries in the world. Their solution is possible only with a global partnership and the inclusion of all countries in the elaboration of strategies to achieve sustainable development goals. The debate over the possibilities and limitations of growth led to the creation of a concept that now claims to be central to the relationship between man and nature: the concept of sustainable development. Sustainable development is defined as economic development that does not degrade the natural environment. The modern era is characterized by the fact that society's economic and social development has apparent contradiction with the biosphere's limited resource-producing and life-supporting capabilities.

Humanity is now persistently seeking new economic models considering sustainability and environmental constraints. The impossibility of continuous growth based on traditional economic development is becoming increasingly apparent due to the large-scale degradation of natural resources and the environment in the world and in many countries: depletion and reduction of land and water resources potential, shrinking forest areas, climate change, the disappearance of ecosystems and biodiversity, increased air and water pollution and increased morbidity and mortality for this reason and many other negative environmental trends. These problems are topical for Ukraine as well.

The main task of sustainable development is to meet human needs and aspirations, to ensure the development of the present generation without

compromising the interests of future generations. Considering social, economic, and environmental parameters in a single complex has become universally accepted. Naturally, the criteria or indicators of sustainable development should reflect these three most important components of civilization. On the other hand, development can be seen as a change of states, each characterized by specific stability and ability to change. In these two planes, the formation of the system of sustainable development criteria creates.

It is difficult to give up the long-standing urge to abuse, and resources can rarely be allocated effortlessly to implement a new strategy for action. However, beautiful ideas are now being put into practice around the world: ideas that do not depend on ingenuity and the ability to take a fresh look at old habits to be put into practice. The benefits of such practices look promising for both locals and their environment.

The qualification work aims to study in-depth the strategy and concept of sustainable development goals in terms of international norms and business peculiarities, and analyze the effectiveness of using indicators to consider the methods and forms of implementing the improvements on different levels from entrepreneurial to global. It is imperative to show that social, economic, and environmental processes, including demo economic ones — the reproduction and functioning of all human resources in their multidimensional structure and quality — occur in an organic relationship and interaction with the environment, living and inanimate nature. One aspect of human development cannot be taken into account to maximize the benefits of the other. Unfortunately, the history of humankind knows many examples when environmental interests were neglected for economic gain. People must realize that the ecological aspect of the development of society and to what extent is not only not inferior in importance to others but, in some respects, even prevails over them.

The following tasks are used to achieve these goals:

1) Investigate the theoretical framework of sustainable development goals

2) Analyze the sustainable development indicators

3) Study the legal and regulatory framework of both international and Ukrainian legislation

4) Examine the economic growth through the prism of SDGs

The object of the investigation is the study of the idea of sustainable development goals.

The methodological basis for the research was the scientific works of well-known domestic and foreign methodologists and publicists. Publications devoted to the concept of Sustainable Development Growth were used as the theoretical basis for the research. The articles of the UN, or the UN Development Program, are analyzed, and research by McKinsey and European Investment Bank are also used.

CHAPTER 1
THEORETICAL FRAMEWORK OF SUSTAINABLE DEVELOPMENT GOALS

1.1 Limits of growth. The way to the sustainable development goals concept

Ancient Greek philosophers first expressed thoughts about the limits of natural resources and the need to curb the uncontrolled growth of consumption. But usually, the concept of sustainable development is associated with the English priest and economist Thomas Robert Malthus. In the early 18th century, Malthus hypothesized that population growth is geometric. At the same time, food and resource production is arithmetic, leading to disasters: famines, wars, and even revolutions. [8]

In 1983 the term "sustainable development" was introduced. WCED was created in response to growing concern about the rapid deterioration of the environment and the consequences of deteriorating economic and social development. Sustainable development was outlined as encountering the current wants while not compromising future generations' capability to fulfill their needs. Even though the term "sustainable development" adopted its basic definition in 1983, the history of the development of this concept, according to Y. A. Bubnov, begins in 1962. That year, Rachel Carson published the book "Silent Spring", which combined research on toxicology, ecology and epidemiology, and concluded about the catastrophic scale of agricultural pesticide use. [5] Figure 1 shows the main milestones in the history of the concept of sustainable development.

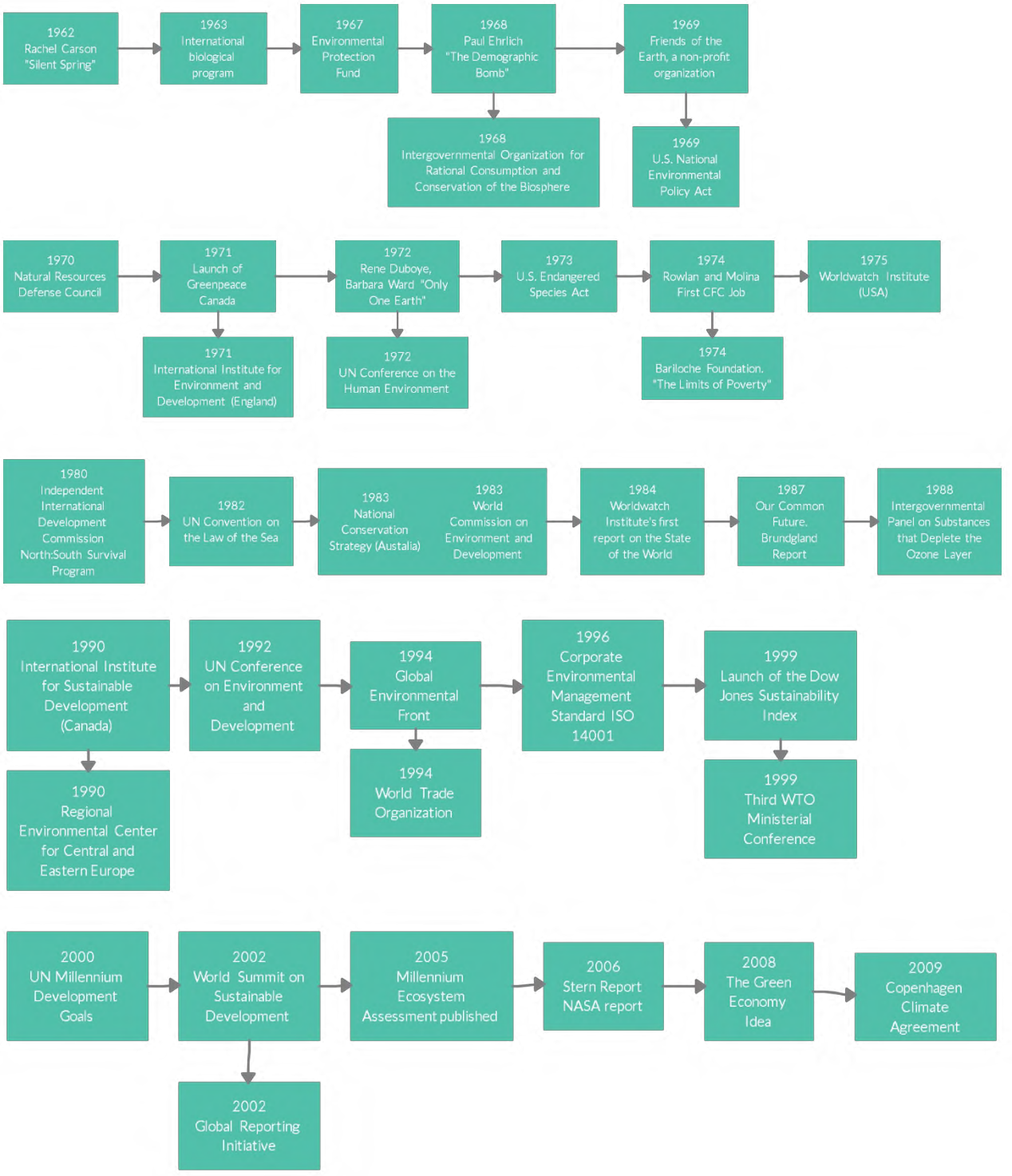

Fig.1. History of the Development of the Concept of Sustainable Development [18]

The Club of Rome report "The Limits to Growth" - contains the results of modeling human population growth and resource exhaustion. The report was written

by Dennis Meadows, Donella Meadows, Jorgen Randers, and William Behrens. The report was based on data from computer simulations of resource consumption growth. The model was based on five parameters - global population, industrialization, food production, depletion of natural resources, and pollution. Each of these has its dynamics and affects the other parameters. In 1993, Donella Meadows, Jorgen Randers, Dennis Meadows published a book called Beyond Growth, which contained an adjustment to the scenarios of the original model based on 20 years of data since the first report was published. [35]

The World Commission on Environment and Development coined the term "sustainable development" in 1987. It includes two key concepts:

1) the notion of needs, in particular, the needs necessary for the livelihood of the poorest people, which should be a top priority;

2) the notion of limitations imposed by the state of technology and the organization of society on the potential of the environment to satisfy current and future demands. [26]

Global problems manifest the contradictions of the development of modern civilization between it and nature, between its various parts, between the needs of resources and the possibilities for their satisfaction, between the needs of the living generation and the need to provide conditions for the reproduction of generations.

Humanity became aware of global problems only in the latter part of the 20th century; some of them, such as the problem of natural disasters, have existed for a long time. Global issues have been recognized now when the interdependence of the countries and peoples of the world has sharply increased, the globalization of the life of mankind has occurred, and the unresolved problems have become particularly evident and destructive. In addition, the realization of some problems came when humanity accumulated an enormous knowledge potential, making these problems visible.

The emergence of global problems was foreseen by Academician V. Vernadsky, who warned, in particular, about the "geological force" of society, which has a destructive nature. The academic efforts of V. Vernadsky are strongly connected to the Sustainable Development Goals declared by the United Nations in the Resolution of September 25, 2015. "Transforming Our World. The 2030 Agenda for Sustainable Development" state the methodological and theoretical framework for accomplishing all 17 SDGs. His ideas are relevant today. At the present time, international associations, states, public associations, scientists, and ordinary citizens are all paying attention to global problems. [9]

The Sustainable Development Goals (SDGs) are an extension of the Millennium Development Goals (MDGs), which prioritized eight international development goals. The MDGs were derived from the eight sections of the United Nations Millennium Declaration, which was endorsed in September 2000. One of the most important issues that connect the unsustainable present and the sustainable future is the realization that they already need to be brought together into one coherent system in which there should not be a civilizational discontinuity over time. The real meaning of the transition to sustainable development consists in a significant reduction of negative phenomena, dangers, threats, and crises. Therefore here, it is necessary to involve the ideological-theoretical potential and active means of the new model of development. [51]

The quality of life characterizes the degree of satisfaction of various human needs: life-supporting, social and spiritual; the degree of satisfaction of these needs is determined by the objects existing in the current socio-economic system and subjectively perceived characteristics of human life. At the same time, the quality of life consists of the standard of living and living conditions. Living conditions are nothing but a favorable environment for human existence, a category that includes the need for ecological security and a developed health care system. In turn, the standard

of living is the level of well-being, which also reflects the degree of satisfaction with material needs. [20]

In the global economy, the problem of sustainable development becomes the core of the economic process, becomes the basis of the economic development policy, and gives the contours of all strategic decisions. Ensuring sustainable development is the essential function of both individual enterprises and the entire state. The concept of sustainable development represented a logical transition from the greening of science to socio-economic development, which began to take off in the 1970s.

The Stockholm Conference of 1972 laid the foundations for a comprehensive, balanced effort to address the broadest ecological problems. The Stockholm formation articulated the right of people to decent and harmonious living conditions. The conference influenced the domestic policies of many countries whose national priorities had not previously been related to environmental issues. These issues were prioritized at the regional and national levels. After the conference, the development of state environmental programs began, mechanisms for their implementation were established, and changes were made in the country's legislation. The decisions taken in the capital of Sweden led to an impetus for international environmental cooperation, characterized the development of environmental law within international environmental activities, and gave new perspectives for environmental activities within the UN. It should be noted that the Stockholm conference was the beginning of a dialogue between representatives of the UN and its subordinate organizations with ordinary citizens and non-governmental organizations. A large number of such participants attended the conference, which was unprecedented for this time. [49]

In the 1980s, UN member states negotiated environmental issues, such as the Convention to Protect the Ozone Layer and others. In 1983. The UN established the World Commission on Environmental Development, which decided on the need for a new type of development that ensures the environmental well-being of present and future generations and protects natural resources, which depend entirely on

development. The 1987 General Assembly Conference report proposed a new alternative to sustainable development based on unlimited economic growth. [16]

It is accepted that the first fundamental concept of sustainable development as a scientific concept was given by G. H. Brundtland at the International Commission on Environment and Development in 1987 in Rio de Janeiro. He defined: "Sustainable development is addressing current demands without jeopardizing future generations' abilities to fulfill their requests. [4]

A need for sustainable indicators was first stated in the Rio de Janeiro Declaration, which was endorsed at the United Nations Conference on Environment and Development in 1992. The basic principles enshrined in the Rio Declaration are a substantive part of the concept of developing a sustainable society. They are designed to create a new world partnership mechanism, establish international agreements that respect all interests, and protect the integrity of the global system for the protection of the surrounding world. [14]

The environmental dimension considers the environmental impact of a company's activities. The social aspect includes the well-being of employees and local communities, while the management factor considers such components as corruption, business ethics, gender composition, and top managers' remuneration.

The concept of stable development allows us to distinguish between the concepts of "growth" and "development”. For a long time, the goal of economic development was considered to be its quantitative dynamics: an increase in the volume of products and services due to more and more use of the resources of nature. The concept of sustainable development aims for balanced, environmentally sound socio-economic development without exhausting natural resource potential. It implies greater accountability for actions that are detrimental to any stakeholder group. Compared to growth, development involves a qualitative change in the system of interaction between man and nature, which consists of an increase in the efficiency of production with a fixed number of resources used or a decrease in their use. [39]

If considering the concept of sustainable development, some researchers suggest distinguishing between a "strong" and a "weak" version of it. In the early 1990s, R.K. Turner differentiated levels of sustainable development into four categories: weak, weak, strong, and strong. Based on this rule by J. Hartwick, the weakest sustainability represents that the substitution of human-produced natural resource use is theoretically unlimited. The second category of developmental stability is generally advocated by representatives of the London School D. Pierce, G. Atkinson. In their opinion, the replacement of artificial capital is acceptable to some critical point, i.e., limited. To some extent, representatives of the London School support the position of solid stability - replacing the consumed part of the natural resource is only possible with some other natural help, not with artificial capital. Finally, extreme strength of development is defended and constantly defended by representatives of the so-called thermodynamic schools: N. GeorgescuRogen, H. Daly. According to them, the substitution of natural capital is unacceptable - neither artificial nor wild. [38]

The idea of sustainable development must not negatively affect the lives of modern people and their ability to meet demands. In 2015, the document "Sustainable Development Agenda" prepared by the United Nations was adopted.

This document covers fifteen years, 2015-2030, and includes about 170 priorities that are divided into 17 areas: ending hunger, decent work, economic growth, responsible consumption, production, combating climate change, preserving sustainable terrestrial ecosystems, gender equality, etc. (Table 1.1)

Table 1.1

17 sustainable development goals with supporting facts

Goal 1: No Poverty	Goal 2: Zero Hunger	Goal 3: Good Health and Well-being	Goal 4: Quality Education	Goal 5: Gender Equality	Goal 6: Clean Water and Sanitation
736 mln people are still live in extreme poverty	In 2017, there were 821 mln individuals who were food insecure.	• At minimum 400 mln individuals lack access to basic medical services, and 40% lack social safety.	• 57 mln kids are still not in school, with more than 50% of children living in Sub-Saharan Africa..	• Women receive only 77 cents on the dollar as males doing the very same occupation.	In 2015, 71 %, or 5.2 bln, had access to clean drinking water, while 844 mln people required simply basic water sources.

Goal 7: Affordable and Clean Energy	Goal 8: Decent Work and Economic Growth	Goal 9: Industry, Innovation and Infrastructure	Goal 10: Reduced Inequalities	Goal 11: Sustainable Cities and Communities	Goal 12: Responsible Consumption and Production
In 2017, a solar industry hired a total of nearly 10 millions One in every seven individuals nevertheless without access to electricity, and the majority among people reside in developing-world rural areas.	For 2018, an approximated 172 million individuals across the world were unemployed, representing a 5% jobless.	• 2.3 billion individuals do not have access to essential hygiene. • In poor nations, 2 billion people worldwide do not have continuous access to energy.	• By 2016, the wealthiest 1% collected 22% of global income, while the lowest 50% collected 10% of revenue. During 1980, the wealthiest 1% controlled 16% of earnings. The poorest 50% earned only 8% of the total.	• During 2018, towns housed 4.2 bln individuals, or 55% of the population of the earth. The city population is anticipated to rise 6.5 bln until 2050. • Slums are believed to house 828 mln population, and the number is growing.	Annually, 1.3 bln tons of food is thrown, as almost 2 bln people are starving or severely malnourished..

Goal 13: Climate Action	Goal 14: Life Below Water	Goal 15: Life on Land	Goal 16: Peace, Justice and Strong Institutions	Goal 17: Partnerships for the Goals
People are believed to have led around 1.0°C of rising temperatures as of 2017. From 1880, water levels have increased by roughly 20 centimeters, and they are expected to increase further 30–122 centimeters by 2100.	Water containing salt spans three-cottage of the Earth's surface and gives reason for 99 portion of the globe's temporary place to stay or sleep by capacity.	• Woods provide a living for approximately 1.6 bln individuals. Woods are habitat to over about 80% of all earthly variety of mammals, plants and bugs.	• Fraud, embezzlement, stealing, and tax avoidance affect emerging economies $1.26 trln annually. Requiring regulations covering women from household violence in 49 nations.	• Overall legitimate incident help attained $147.2 bln in 2017. • In 2016, 6 nations join the worldwide goal to maintain legitimate incident help at or above 0.7 rate of GNI.

Created using the source: [50]

The concept of sustainable development is based on five main principles based on sustainable development:

1. Man, indeed, is able to provide stable and long-term growth to fulfill the demands of the current population and not deprive the future generation of the ability to meet its needs.

2. The said limitation on the exploitation of natural resources is relative. It is conditioned by modern technology and social organizations and the biosphere's ability to respond to the consequences of human activity.

3. It is necessary to meet the basic needs of every human being and allow everyone to realize their hopes for a happier life. Without this, stable and long-term development is not possible. One of the leading causes of environmental disasters is poverty, which has become an everyday occurrence worldwide.

4. It is necessary to compare the way of life of a person with much money and material resources with the possibilities of nature, particularly with energy consumption.

5. Determining the size and rate of population growth must be coordinated with changes in productivity potential in the global ecosystem. [10]

In general, we can distinguish three main areas of strategic development of commercial organizations: economic, social, and environmental. In the economic sphere, it is possible to reduce the financial and time costs of the enterprise and the organization's partners by improving logistics and transportation chains. This goal can be achieved, for example, through the interaction of retailers and suppliers, which will ensure the maximum picking of batches included in the delivery, which will reduce the number of transport trips. The economic directions, in addition to the environmental ones, are also linked to the social ones. This connection is considered when addressing the company from the employer's position. Organizations not only provide jobs but also contribute to the goals of sustainable development aimed at eliminating poverty, decent work, and training for self-development and ensuring their safety through or direct implementation of goals such as health and welfare. Environmental direction - the restoration of natural resources, reduction of CO2 emissions, striving to reduce waste at various stages of the company's activities. [44]

The corporate sustainability framework:

1) Forcing companies to operate under new rules (without violating the sovereignty of countries and corporations)

2) Improving legislation and enforcement in the area of sustainability

3) Urging all nations to comply with international sustainability requirements

4) Develop and implement sustainable development strategies at the State, industry, and corporate level

(5) Improving corporate sustainability reporting and ranking

6) Educating, nurturing, and teaching a sense of public responsibility toward the environment [53]

Any corporate entity's usage of the notion of sustainable development is a free decision to participate in improving society and the protection of the environment. The image sees the economic entity as a socio-ecological financial system.

1.2 Sustainable development indicators in the framework of international norms

Sustainable development must reflect the economic, social, and environmental dimensions of meeting current needs without limiting the needs of the next generation to meet their own needs.

The system of indicators was developed by the UN Committee on Sustainable Development of the United Nations CSD. One of the most comprehensive systems of sustainable growth indicators developed by ICAO. The indicators are divided into major categories:

- indicators of sustainable development's social elements,
- indicators of sustainable development's economic aspects,
- indicators of sustainable development's environmental implications (containing traits of water, area, air, different raw materials, and rubbish),

- indicators of the institutional aspects of sustainable development (policy programming and planning, scientific research)

- legal instruments, information provision, and strengthening the role of key population groups).

- the draft indicators need significant changes, adaptation to unique situations, and, in some situations, growth for individual nations;

- the indicators are grouped into three groups based on their intended use:

- driving indicators that characterize people's behavior, practices, and qualities that impact sustainable development;

- national indicators describing the current condition among many areas of sustainable development;

- response indicators that enable a legislative or by other reaction to modify the existing state. [47]

The Figure 1.2 shows the system of international standards of performance management in terms of sustainable development of the economic entity.

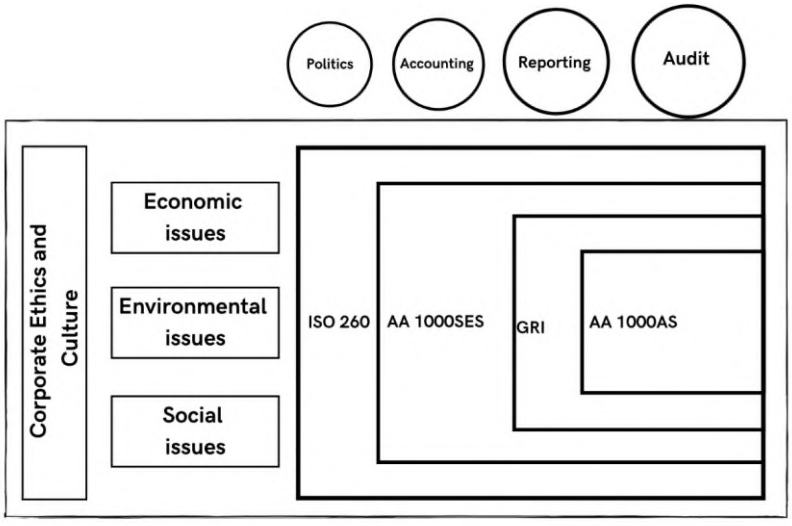

Fig. 1.2. International standards for sustainable development in an enterprise

Table 1.2

Comparative analysis of non-financial reporting standards

The aspect of comparison	GRI	IR	SASB Standards
Purpose of compilation	Informing stakeholders about the sustainability priorities, policies, programs, and performance of the economic entity	Reflection of the value creation process (value) and disclosure of all material information about the economic entity's strategy, corporate governance, performance indicators, and prospects for sustainable development	Help listed economic entities disclose material information as required by the SEC (Securities and Exchange Commission) on the sustainability aspects that have the most significant influence on the economic entity's worth
Availability conceptual foundations	Yes	Yes	Yes
Target Audience	Wide range of stakeholders	Investors, creditors	Users of financial statements, primarily investors
Existence of disclosure requirements	It contains recommendations on the composition and disclosure of specific indicators. Indicators for individual industries are highlighted	There are no recommendations for the disclosure of indicators, taking into account their industry specifics	Guides the composition and disclosure of specific sustainability indicators for individual industries under SEC criteria on the areas that have the most substantial influence on the economic entity's value
Uniformity of structure, content, and indicators	Provided governing guidelines	Not provided	Provided in the guidelines
Possibility of comparative analysis	In general, available	Obstructed	Provided

Source: [55]

The goal of modern non-financial reporting practice is to identify trends in non-financial reporting in the world, including the recording of critical events and process features, the development and training of different reporting platforms, and tools to help improve the reliability and quality of the data disclosed in the reports.

The Sustainable Development Goals are broadly formulated, and each of them is specified in an extensive list of indicators that can indicate success in achieving the country's sustainable development goals. Indicators of sustainable development of the economic pillar, for example, can be seen as:

- GDP per capita, thousand UAH
- The index of industrial production, percent;
- Gross Domestic Aggregate Real Demand Index, percent;
- Gross Consumption Index, percent;
- Gross fixed capital formation index, percent;
- Extractive industries as a share of industrial production, percent;
- The share of the manufacturing sector in fishing production, percent;
- Total investment in fixed capital, UAH million;
- Intensity rate of fixed assets renovation;
- Volume of scientific research and scientific-technical works, UAH million;
- Import of goods and services, billion USD;
- Export of goods and services, billion USD;
- Foreign direct investment, billion USD. [43]

However, many indicators, the lack of uniform principles for their use, and the scarcity of pre-table statistical data create problems in detailed assessments of the sustainable development of different countries.

Because sustainable development and its realization are, on the one hand, a somewhat distant prospect, on the other hand, a reality that has begun to take shape now and now, a new stage in the functioning of world law has emerged (i.e., ensuring global and international transition to sustainable development).

This has primarily predetermined the transition of international rights to a new stage of development. They are called upon to become an effective legal tool that will ensure the harmonization of the three dimensions of development. Nevertheless, it should not be thought that the result of sustainable development is solely an

orientation to international law. International jurisdiction is designed to jointly intensify this transition to the national level, where national law plays the decisive role.

If to distinguish between the international-legal and the national-legal system, we can consider that sustainable development is the leading idea of modern law. This idea is the source of such a complex phenomenon as the right to sustainable development. In general, the transition to sustainable development involves the effective international and national implementation of the rule of law. [40]

The rights to sustainable development concept are related to a change in the economic order. Its main content is to ensure sustainable socio-economic development, primarily in third countries. It is required to preserve financial and political stability, human rights, environmental protection, etc.

According to the concept, every state that implements its development rights policy has the right to rely on the help of the international commonwealth. Some jurists consider this right to be international law. Each state is responsible for the results of its foreign economic policy and must therefore refrain from measures that might cause significant harm to other countries, especially developing countries.

The concept of development rights has been embodied in many decisions of the UN General Assembly and many international acts. At every General Assembly meeting, most resolutions dealing with economic issues refer to the right to development. International instruments have also represented the right to growth.

The right to development does not imply specific rules and regulations. Instead, it embodies a new approach in the international community, according to which existing norms and principles must be fulfilled with the common interest of states. First, the objective of sustainable development of the entire world community is put forward, which is impossible without the development of the whole country. The concept reflects the further globalization of the community, and the internationalization of the interests of its members. [21]

It must be assumed that international human rights law preceded the development of international environmental law. Since the 1960s, this sector has developed in parallel and, nevertheless, with more and more penetration of each other.

The question of the extent to which international environmental law should adopt an anthropogenic approach, based on the notion that conservation is justified primarily as a means to protect humans rather than an end in itself, has been significant at United Nations conferences.

Thus, in the resolution of the UN Convention on Human Rights on March 6, 1990. The existing reciprocal relationship between the protection of nature and human law was highlighted.

The 1972 Stockholm Declaration on the Human Environment, the Brundtland Commission Report "Our Common Future," the 1992 Rio Declaration on Environment and Development, the Millennium Declaration, and the 2002 Johannesburg Declaration on Sustainable Development are five of the most significant global records forming the basic guidelines and requirements of the principle of sustainable development in international law.

The basic principles in order to create sustainable development were the principles of the 13th and 14th Stockholm Declarations. They said that the state should work out a unified and joint concept of development planning to make sure that this development would meet the requirements of protection and improvement of the environment of the population of these states.

The Stockholm Declaration resulted in increased attention to environmental problems. Many countries have passed laws to protect the environment. [21]

If we talk about the key indicators of the organization's sustainability report, we can distinguish three main ones:

1. Financial indicators of stakeholder engagement

To calculate comparable eco-financial indicators of the company's activity at the macroeconomic level and for international comparisons, indicators of value-added

(VAD) and net value added (NVAD) are calculated. Value-added can be calculated in two ways:

- Based on the production approach (taxable source of origin):

VAD = Organizational Income - Direct Material Costs and Purchased Services;

- On the distributive approach:

VAD = Labor costs + Depreciation of fixed assets + Amortization of intangible assets + Interest payable + Taxes and equivalent payments + Dividends + Retained earnings. Net value added is calculated by a similar method with a correction for the reduction of value added by the amount of depreciation of fixed assets (bearing in mind that the latter are usually created outside the business enterprise).

2. Eco-financial indicators

This performance category includes impacts related to biodiversity, transportation, products and services, compliance with environmental law, and environmental expenditures. The most significant and relevant aspects of environmental impacts in the production of material materials and industrial services:

- water use
- energy use
- greenhouse ozone action
- production of discharges and industrial waste.

3. Social indicators of development

The report on sustainable development refers to aspects that reveal to society specific facts on the nature and scale of the impact of the company's production method on human factors related to - employment, health and safety at work, relations with employees and management, training and education, gender equality, child labor and labor with disabilities, interaction with the local community and public institution, respect for human rights. [11]

Table 1.2.1

Key characteristics of sustainable development strategies

Name of the indicator	Characteristics
Period of validity	Developed over a long period (long-term benchmarks and targets)
Economic objectives	The concept identifies the essential themes and aspects of the company's economic activity; it sets quantifiable goals for its activity.
Environmental objectives	The enterprise's sustainable development concept must contain priority measures for minimizing adverse environmental impact and targets for reducing a negative impact. The enterprise must also implement environmental controls, comply with environmental legislation, and take steps to increase energy efficiency. In addition, the enterprise must exercise production environmental control, comply with the requirements of environmental legislation, and implement measures to increase energy efficiency.
Social objectives	The concept outlines the essential themes and aspects of the company's social activities. Special attention must be paid to compliance with human rights legislation, employees' professional and cultural development, and staff motivation.
Risk management system	The sustainability concepts of many companies operating in the market include a risk management framework to improve the quality of business planning, project management, and strategic planning. In addition to

	financial and operational risks, the risk management system covers social and environmental hazards.
Reporting	Companies with the highest focus on corporate social responsibility and the most responsive to the challenges of modern society publish annual sustainability reports based on international reporting norms and standards

Source: [37]

The correlations between the above parameters of the economic system reveal patterns of sustainable, balanced development:

- Strengthening in time of interdependence and mutual influence of the system development parameters;

- Optimal balanced growth of the system's parameters forms conditions for positive, sustainable development in the long term;

- Decreasing the balanced level of the system with any adverse changes in its parameters slows down sustainable development, which, in the extreme case, can lead to an unstable system. [13]

1.3 The concept of sustainable development in Ukrainian legislation

The main reason for the emergence of education for sustainable development is to recognize the need for a paradigm shift in education to further the sustainable development of society and the economy to preserve the environment. Education for sustainable development implies the transition to such an economically. Socially-oriented model of learning, which should be based on broad interdisciplinary knowledge, based on an integrated approach to the development of society, enables both local and global decision-making and execution focused at increasing the quality of the week, without affecting future generations' ability to satisfy their demands.

Much of the content of the Concept of Sustainable Development concerns the economic life of society both nationally and globally. The need to adopt the latter at the legislative level, primarily for the critical global task of greening the economic sphere, will launch a new reformist process in the economic legislation.

The mechanism for managing the sustainable development of a country and its regions contains several blocks: legislative, organizational, and public relations (Figure 1.3).

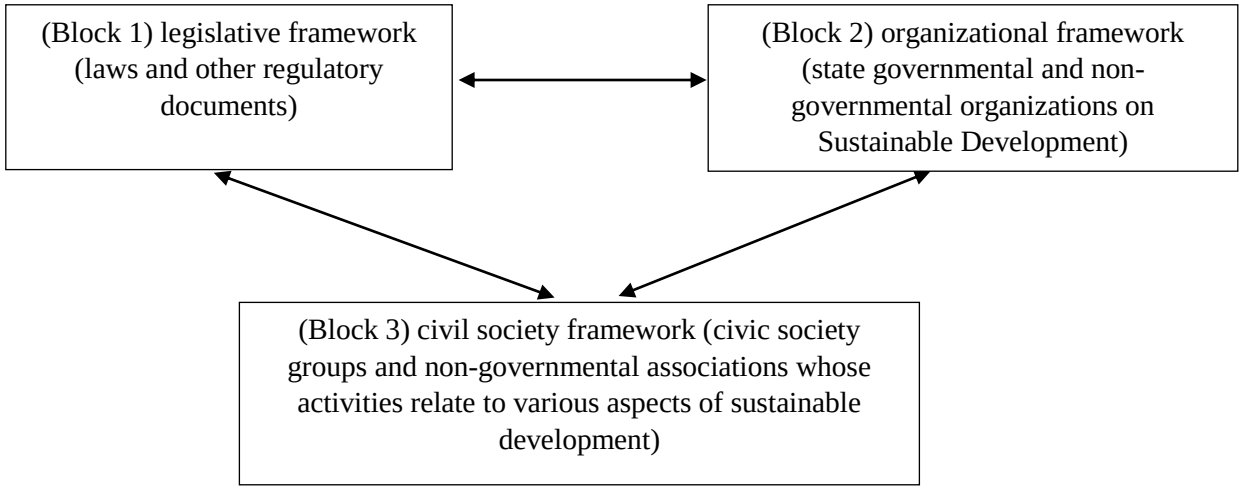

Fig. 1.3. Elements (blocks) of the method for controlling the country's long-term development and its regions [33]

Ukraine has officially supported several international decisions on sustainable development, such as "Agenda 21" in Rio de Janeiro in 1992, the UN Millennium Declaration in 2000, the Johannesburg Declaration, and the Plan of Implementation of the 2002 United Nations World Summit on Sustainable Development in Johannesburg, "The future we want" in Rio de Janeiro in 2012. However, it has no national plan for practically implementing sustainable development ideas in life. An important reason for this state of affairs is the lack of an approved National Sustainable Development Strategy and Action Plan for its implementation and even a

concept, as well as the lack of implementation in the current legislation of the provisions of international documents and agreements in this area.

The proposed drafts of the Concept are reflected in the following official documents:

1. Draft Law on the Concept of Sustainable Development of Ukraine (No. 3234 of 25.04.2001), heard at the Verkhovna Rada of Ukraine meeting on March 7, 2002, and not adopted.

2. Draft Law on the Concept of Ukraine's Transition to Sustainable Development (No. 3234-1 of December 19, 2001), heard at the meeting of the Verkhovna Rada of Ukraine on March 07, 2002, and not adopted.

3. Draft Decree "On the Concept of Ukraine's Transition to Sustainable Development" (No. 5749 dated 02.07.2004), the issue was considered at the meeting of the Supreme Rada of Ukraine, but the draft was not supported (06.10.2005) [1]

Table 1.3

Organizations for the regulation of sustainable development of Ukraine

Level	List
Higher authorities	The Verkhovna Rada of Ukraine, the Cabinet of Ministers of Ukraine, the National Security and Defense Council of Ukraine, the Ministry of Environmental Protection
State committees	Derzhkomhidromet of Ukraine, State Committee of Ukraine for Water Management, State Committee of Ukraine for Geology and Subsoil Use, State Committee for Fisheries, State Committee for Forestry
Commissions	National Commission for Sustainable Development, Interagency Commission for the Implementation of the UN Framework Convention on Climate Change, Interdepartmental Commission for Environmental Monitoring
Other organizations	National Academy of Sciences of Ukraine, Coordinating Council

	for the Formation of the National Ecological Network, National Coordinating Council for Transport, Health and the Environment, Council for Environmental Problems of the Dnieper Basin and Water Quality

Source: [33]

The National Report "Sustainable Development Goals: Ukraine" reflects the national objectives, indicators for monitoring the execution of the goals, and targets to be attained by 2030. The established national system of objectives and indicators of the Sustainable Development Goals provides a solid basis for further comprehensive monitoring of the country. In total, 17 goals and 86 national objectives are incorporated in 145 legal acts of the Government to implement the goals and objectives are aimed at 1052 tasks and 3465 activities enshrined in these acts.

On September 30, 2019, Ukraine's President released the Decree "On Ukraine's Sustainable Development Goals for the Period Until 2030," in which he advocated assuring the attainment of global sustainable development goals and the outcomes of their adjustment to Ukraine's special growth, set out in the National Report "Sustainable Development Goals: Ukraine."

At the governmental level, the Interagency Working Group on Sustainable Development Goals, a temporary advising and consultative organ of Ukraine's Cabinet of Ministers, is presently being formed to coordinate executive authorities' measures to accomplish global goals in Ukraine.

Ukraine has agreed to conduct a voluntarily national evaluation of the Sustainable Development Goals and publish its findings at the ECOSOC high-level political conference on sustainable development, which will take place in New York City from July 10 to July 17, 2020. A working committee has now been created under Ukraine's Ministry of Economic Development, Trade, and Agriculture, and preparations for the review have commenced. [12]

The Ministry of Infrastructure of Ukraine has developed a draft law, "On Amendments to the Law of Ukraine "On-Road Transport," which aims to use electric transport (specifically, the definition in Ukrainian legislation of the concepts "electric vehicle," "electric cargo vehicle," "hybrid electric vehicle," "plug-in hybrid electric vehicle") [48]

Robotization is a trend of economic development because the Constitution of Ukraine states that we are a social state. However, the problem of providing quality labor resources in social life is possible at the expense of artificial employment or non-commercial management development of the corporate sector (both commercial and non-commercial, creating forms and incentives). Therefore, this should be considered both at the economic and legal policy level and the status of economic legislation. Economic security is a diverse phenomenon but the key element of its characteristics is the public interest, which should be an obligatory principle of rule-making activity. The very adoption of laws should be perceived as the basis of the critical factors of economic security. Today there is a requirement to implement the dynamic function of legal regulation. An example is the telecommunications sphere because the development of technology and new relationships in the latter is the most active and requires rapid legislation responding to this trend. [34]

The new proposal "On the Concept of Ukraine's Transition to Sustainable Development" describes the socio-economic development and environmental protection concepts outlined below:

- Obligatory submission of economic and other activities to laws of nature and limitations determined by them;
- National priority (interests, culture, and national identity) in the global civilization;
- The result of economic activity may not be less than the harm caused to the environment;
- Inadmissibility of extensive use of natural resources;

- The natural resources of Ukraine belong to its people and constitute the material basis for their existence, irrespective of their form of ownership;
- They must be used with the requirements of current and future generations in consideration;
- The intellectual potential of the nation as the leading productive force of Ukrainian society should be constantly developed and improved;
- Ensuring human health and its social protection is a priority policy of the state. [33]

CHAPTER 2
IMPLEMENTING THE CONCEPT OF SUSTAINABLE DEVELOPMENT (CASE OF NAFTOGAZ COMPANY)

2.1 Implementation of sustainable development goals at different levels

Researchers, and politicians, as the object of application of the concept of sustainable growth, consider social and economic systems of different scales. The realized goals can be divided into the following levels: world organizations and states.

The international organization deals with the problem of sustainable development as a whole at the level of human civilization. The UN played the prominent coordinating role of intercountry cooperation in this area at conferences where the basic principles of the concept of sustainable development were discussed.

In order to combine environmental and development challenges at the national, provincial, national, and global levels, systematic institutional frameworks must be implemented; the UN Division of Environmental Law and Conventions (DELC) has prepared a Program for the Development and Re-implementation of Environmental Law, including in the area of sustainable development, which includes:

- Enhancing the development of environmental legislation for sustainable development;
- Providing proper support and mechanics preparation to countries and nations accompanying economies in change to encourage their capacity to draft and implement environmental legislation;
- Creating an information space to promote the broader implementation of environmental legislation. [22]

Today, almost all leading supranational institutions are involved in the process of implementing these principles: UNDP, UNEP, and others. The World Trade Union,

the World Bank, the IMF, the World Health Organization, the World Organization for Standardization, the World Organization for Economic Cooperation and Development, and other organizations.

Numerous nations worldwide are becoming more effectively implementing the notion of sustainable development. Determining the specifics and level of socio-economic activity of the country, the territory, population size, and other factors, the goals of different states in this area can differ quite a lot. In addition, the interests of developing countries are primarily focused on environmental and social aspects of sustainable development, and developing countries need sustainable economic growth.

At this level, two groups of goals can be distinguished:

1. Implementation of domestic standards and norms, taking into account international requirements with minimal losses in the economy.

2. Accomplishment of aims on all aspects of steady development in conformity with the population's interests. [46]

Since the experience of different countries in sustainable development is very different, all the goals and their respective targets in the 2030 Agenda are formulated in a general, universal form, and there are usually no specific quantitative targets. The SDGs are supposed to be localized for each country in Table 2.2, i.e., independently select development priorities, financial capabilities, adapt them to national conditions, i.e., reformulate, and, if possible, define quantitative goals for each issue according to relevant statistical indicators. Objectives and specific quantitative goals should be fixed in national strategic documents.

Table 2.1

National peculiarities of localization of SDGs in countries that are leaders in implementation of the 2030 Agenda

Place in the ranking - and the percentage of achievement of the SDGs + Country	Year of adoption of the first SD strategy (revision in view of SDGs)	National peculiarities of the organization of work on the implementation of the SDGs
1 - 85,0% - Sweden	2002 (–) + Action plan	The Minister of the Civil Service is responsible for the overall coordination and promotion of the 2030 Agenda domestically, while the Minister of International Cooperation, Development and Climate is responsible for Sweden's contribution to the international implementation of the SDGs. There is also a small advisory group of state secretaries from the Ministry of Finance and Foreign Affairs.
2 - 84,6% - Denmark	2002 (2017) + Action plan	An interdepartmental working group was created to implement the SDGs. Initially, the Ministry of Foreign Affairs chaired this working group, but later, the leadership was transferred to the Ministry of Finance. This change reflects the government's intention to integrate sustainable development into its domestic policies.
3 - 83,0% - Finland	2006 (2016) + Action plan	The Coordination Secretariat in the Prime Minister's Office coordinates the work on sustainable development in Finland. The secretariat consists of the Finnish National Commission for Sustainable Development General Secretariat and the Prime Minister's Office. The administration is supported by a coordination network composed of the representatives of key ministries.
4 - 82,3% - Germany	2002 (2017)	Germany's main sustainability management body is the Committee of State Secretaries, which includes representatives of all ministries, headed by the head of the Federal Chancellery. The Committee advises the German government on relevant priorities and acts as a platform for information exchange among government ministries on their actions in the process of sustainable development.
5 - 81,2% - France	2003 (–)	On behalf of the Prime Minister, the Interministerial Delegate for Sustainable Development, who works closely with the Ministry of Europe and Foreign Affairs, is responsible for coordinating the implementation of the SDGs at the national level.

Source: [19]

One crucial factor contributing to enterprises' rapid adaptation is a compelling set of management tools based on the concept of sustainability. The definition of

sustainable development as a whole is a set of rules that will ensure future generations' further development concerning respect for the environment. Thus, successful compliance with the goals of sustainable development at the enterprise will ensure long-term competitiveness and minimize the potential risks to the enterprise's business and monetary activity. It is essential to connect employees to the implementation of sustainability. Within the organization, all managers and employees must fully understand the goals that have been adopted to implement sustainability.

One of the firm's primary responsibilities is to encourage environmental consciousness and the social cross-section of the whole business. This awareness should be considered in day-to-day communication as well as at all levels of decision-making. Managers or directors not only shape organizational culture but are also significantly influenced by employees and the environmental effect of the enterprise. Sustainable growth necessitates corporate education as an organizational culture in which all employees participate in a continual process of learning and improvement. Internal reporting systems also have an impact on the organizational culture. Furthermore, senior management's active and visible engagement promotes the establishment of attitudes and the development of a corporate culture that benefits the organization's long-term viability. It is imperative to assign moral responsibility for achieving sustainability goals and to create a system of rewards and promotions that will recognize people who are actively involved in achieving sustainability goals.

2.2 General familiarization with the Naftogaz

"Naftogaz of Ukraine" is a Ukrainian governmental corporation that produces, transports, and processes natural gas and oil. National Joint Stock Company "Naftogaz of Ukraine" is if to decode. Ukraine's Naftogaz is a vertically integrated oil and gas business that conducts full-cycle activities in developing, producing, and

exploratory drilling, storing and transporting oil and gas, and transporting organic and liquefied gas to customers. The firm was established on May 25, 1998. Creators are Ukraine's Cabinet of Ministers.

Three subsidiary companies DC, five subsidiaries DP, two-state joint ventures GAO, and two genuine partnership firms comprise NJSC "Naftogaz of Ukraine" (OJSC). The corporation's operations are divided into four categories:

- Extraction and refining;
- Transit;
- Delivery and application;
- Quality assurance.

Table 2.2

Major activities areas in Naftogaz

Extraction and refining: • DC "Ukrgasvydobuvannya" • OJSC Ukrnafta	Transit: • DC "Ukrtransgaz" • OJSC "Ukrtransneft"
Delivery and application: • DC " Ukraine's Gas" • DP VZP "Neftegaz" • JV "Ukrgazenergo" • DP "Neftegazseti"	Quality assurance: • DP "Ukrneftegazkomplekt" • DP "Naukaneftegaz" • DP "LIKVO"

Ukrtransgaz performs 13 gas pipeline storage facilities with an overall amount of more than 32 bln m3, which are part of Ukraine's gas transmission network and intended to guarantee unhindered gas supplies to European countries associated the stock formation in the summertime with resulting use in the cold season.

Ukrnafta is the largest oil company in Ukraine and the most prominent Ukrainian manufacturer of liquefied gas. [59]

2.2.1 Analysis of the status and outcomes of Naftogaz business activities

For Naftogaz, 2019 was a year of major challenges as well as notable accomplishments. The preceding periods' hard work has begun to bear fruit — the firm has proven its capacity to address the most complex challenges quickly and efficiently.

2019 relations between Ukraine's largest company changed dramatically with the country's authorities. Perhaps for the first time, they saw a clear synergy in the joint work of the government, parliament, and Navogaz. This synergy resulted in the lawless unbundling of the gas transmission system operator (GTS) successful negotiations with Russia on the continuation of gas transit through Ukraine.

In just six months, carried out a very complex division of the GTS operator. The plan allowed Ukraine to achieve two goals: to create an independent operator of the GTS following European rules and to protect the country's interests in arbitration of claims against Gazprom. The successful unbundling of the GTS operator made it possible to sign a new transit deal with Gazprom on beneficial terms for Ukraine. This new contract guarantees at least USD 7.2 billion in stable revenues until 2024. Moreover, the Russian monopolist paid compensation awarded under the early Stockholm arbitration ruling.

In 2019, Naftogaz was once again the largest source of state budget revenues, during the year paid UAH 121.4 billion in taxes and dividends to the state and local budgets. Naftogaz Group generated almost every sixth hryvnia of the state budget revenue. The flexibility and financial reliability of Naftogaz provide support to the state as only shareholder.

Naftogaz had a net profit of UAH 50.6 billion in 2019, of which 95 percent was transferred to the state as dividends. This is a new high for an organization or any other Ukrainian state-owned enterprise. The group's continuing process transformation now enables Naftogaz to quickly tackle complex challenges in linked sectors. The brief takeover of operational management of the Novoyavorivska and Novorozdilska combined heat and power plants (CHPs) in the Lviv area posed a significant challenge. The Naftogaz team's capacity to swiftly adjust to dangers and develop new abilities learned through previous years of reforms avoided an unnatural disaster. Launched both CHPs and promptly provided 60,000 residents with heat and hot water. Appreciating this local achievement, as it supports our course to build a sustainable and highly efficient business capable of responding quickly to changing circumstances while creating value in new industries.

Due to the apparent company's size and effect on the Ukrainian economy, one of primary concerns last year was the growth of the national gas market.

An oversupplied market and full storage facilities induced price decoupling in the Ukrainian market: competitive owners have been priced below import parity over the past several months. Naftogaz shifted from a regulated pricing cap set out in a resolution of the Cabinet of Ministers to market pricing.

The new opportunities, competencies, and safety buyers gained in 2019 make confident that the group will address new challenges effectively and set even more ambitious goals. Further challenges await in a highly unfavorable business environment.

The corporation is particularly concerned about climate change. Such issues necessitate a shift in economic structure and will define the trajectory of governments and businesses in the twenty-first century. As a result, attaining zero emissions is a fundamental aim of the Naftogaz plan. A strategy is now being designed to turn the oil and gas firm, which assures energy independence through expanded production

and diverse demand for gas transportation, into a sustainable energy supply company with low environmental and climatic effects.

The company is a member of the UN Global Compact Network, shares its principles, and prioritizes the following sustainable development goals in the course of conducting business: good health and well-being, quality education, clean water, and proper sanitation, affordable and clean energy, sustainable development of cities and communities, combating climate fraud, and partnership for Sustainable Development.

2.2.2 Economic planning and activity of the Naftogaz

Due to the massive COVID-19 epidemic, the globe, including Ukraine, has entered a time of economic hardship. Last year, some indicators of a worldwide economic catastrophe were predicted, including a decrease in usage of fossil fuels and a cost reduction. Because of the LNG market oversupply and the introduction of new providers, gas was expected to be substantially cheaper. However, the economic crisis turned out to be much stronger than expected. Sharping surges in oil and gas prices, the development of pandemic conditions in various regions of the world, and the growing global trend of abandoning hydrocarbons as an energy source - all create a fundamentally new environment in which must work.

The dramatic change in the economic landscape impacts development strategy, budgets, and investment priorities. The plunge in prices for fossil fuels and uncertainty about timing of the global economic recovery is forcing us to revisit previously approved development programs. Naftogaz must constantly respond to external changes and adapt to achieve its strategic objectives, realize that Naftogaz remains one of the major contributors to the state budget and a vital stability factor in Ukraine’s financial system. Also, understand that raising funds in international financial markets under current market conditions will be challenging than before and

will require a specific business model, rigorous selection of investment projects, and reliable repayment sources.

Ukraine and Naftogaz continue to prioritize cooperation with foreign financial groups. On multiple instances, the firm successfully received financial facilities from the EBRD and the World Bank to maintain an uninterrupted gas supply to Ukrainian consumers. This beneficial collaboration was made possible by Ukrainian government reforms in the gas market and SOE corporate governance. Specific duties assigned by the shareholder - the government includes assuring revenue to the state budget, growing proved oil and gas reserves, and preparing the corporation for an IPO. In the current context, these strategic duties need considerably more effort. New growth points will undoubtedly emerge throughout their execution for Naftogaz Group and the country. The tasks set by the owner must be organically combined with the vision of the group's overall development strategy. [58]

2.2.3 Naftogaz HR management

Employees are the most valuable asset of Naftogaz Group firms. The employees' degree of expertise and abilities is critical to the success of the group's activities. As a result, the group's firms are focused on the continual growth of human resource competencies, the enhancement of methods for talent evaluation and retention, pay and social protection, and boosting productivity.

In 2019, the Naftogaz Group's HR policy was agreed upon and accepted, and a functional people management structure was developed. The following are the key objectives of this personnel policy:

— developing partnerships between management and employees based on human rights;

— creating a corporate environment conducive to the continuous development of the Naftogaz Group;

— ensuring appreciation for the concept of decent work, fair and non-discriminatory employee welfare, and the formation of equal treatment;

— defending and advancing the health and security of the team;

— preventing all forms of discrimination and all forms of forced and child labor.

Naftogaz Group's approach to personnel management is based on compliance with all labor, social security, health, and safety legislation requirements, as well as the principles and norms set out in conventions of the International Labor Organization and other international treaties binding on Ukraine.

Collective agreements control the majority of labor relations at the Naftogaz Group's operations. The antiquated pay management techniques were replaced with contemporary and effective procedures. The Naftogaz group of enterprises has a thoroughly open and effective payment structure.

2.3 Marketing and logistics management of Naftogaz

In 2019, the Ukrainian natural gas market, as part of the European and global gas markets, was influenced by the same fundamental factors that were exacerbated by several local factors and expectations, namely:

— Reduction in gas consumption due to high temperatures and regulatory changes in gas prices for PSO consumers: natural gas consumption decreased by 7.7% (or 2.5 bcm) compared to 2018.

— Natural gas surplus in the market occurred owing to a 34.5% (or 3.7 bcm) year-over-year increase in natural gas imports amid reduced consumption.

— Decrease in gas production by 1.3% (or 0.3 bcm) compared to the previous year.

— Uncertainty by the end of 2019 regarding the prospects for an extension of the transit contract with Russia.

— A record-high volume of natural gas in Ukrainian UGS at the end of 2019 was 43% (or 5.7 bcm) higher than the 2014-2018 heating season average, amid preparations for a “zero transit” scenario and a possible shortage of gas in the period.

In 2019, changes were made to the PSO regime governing Naftogaz activities. Naftogaz purchased natural gas produced by Ukrgasvydobuvannya and Chornomornaogaz in 2017-2019 at a regulated price: by 31 October 2018 at the price of UAH 4 849 / tcm (w/o VAT); from 1 November 2018 to 30 April 2019 – at the price of UAH 6 116 / tcm (w/o VAT).

As a result of the decrease in the price in the European market, the gas price for industrial consumers in Ukraine has become lower than that for households and heat producers. To eliminate such an imbalance, on 5 June 2019, the CMU adopted Resolution No. 485, which amends Resolu on No. 293 and, consequently, the mechanism for calculating the price of natural gas sold for the needs of households and heat producers. Following Resolution No. 485, Naftogaz sets the price of gas at a level equal to the lowest of the following:

— the average customs value of imported gas for the previous month, published by the Ministry of Economy;

— the average natural gas price for commercial customers of Naftogaz for the last month, which is delivered on a prepaid basis;

— the average price on the Ukrainian Energy Exchange;

— the price of gas under the PSO regime set in the PSO.

The groundwork for gradual deregulation of gas pricing for PSO customers was created in 2019, including connection with market data. Unlike January-April 2019, when the price was set according to the CMU Resolution No867 of 19 October 2018 (paragraph 13 of the PSO Regulation), in May 2019, the cost was calculated as Naftogaz average selling price to industrial users according to the CMU Resolution No293 of 3 April 2019. Later, to minimize the influence of one source for pricing, the government adopted Resolution No485 on 5 June 2019, according to which prices for

June-December 2019 were set as the lowest of the four options: import parity price, average UEEX price, selling price for industrial users paying in advance, PSO price (according to Resolution No867 of 19 October 2018).

At the beginning of 2020, realizing that gas transit through Ukraine will continue and the risk of interrupted supply was avoided, the government adopted a new pricing methodology linked to import parity. In January, the Cabinet of Ministers issued Resolution No17 of 24 January 2020 according to which the price should not exceed the level based on the TTF average actual gas price for the period from 1 to 22 day of the delivery month, difference (spread) between the TTF price and the price at the Ukrainian border, gas transmission tariffs for the entry point to Ukraine at the cross-border interconnection.

However, the pricing based on the new resolution applied only in January and February. The objective conditions in the Ukrainian market drove a decrease in domes c gas prices lower than the import parity level (record-high stocks in UGS facilities, warm winter, lower gas demand). The surplus market and filled UGS facilities led to a split in the Ukrainian market, which means that price fluctuations in the Ukrainian market did not reflect European trends.

In this regard, the company switched from the pricing methodology recommended by the CMU decision to pricing based on market prices. At the initiative of Naftogaz, since March, the PSO price has been calculated as the weighted average price offered by the winners of the Prozorro tender for balancing and fuel gas purchased by the GTS Operator and adjusted under the gas purchase and sale agreements. This initiative saved households on gas bills and offered real-market prices. [57]

2.4 Management of cross-border economic activity of the Naftogaz

In 2019, Europe consumed about 529 bcm of natural gas, which is 3.6% more than in 2018. Ukraine ranked 7th among European countries in terms of gas consumption. Natural gas consumption in Ukraine fell 7.7% in 2019 (i.e., from 32.3 bcm to 29.9 bcm) compared to 2018. In 2019, households used 9.5 bcm of gas, which is 1.1 bcm or 10.4% less than in 2018. Such a decline can be explained by decreasing temperature-sensitive natural gas demand.

Gas consumption by district heating companies in 2019 amounted to 4.6 bcm, which is 0.2 bcm or 4.3% less than in 2018 due to milder weather in 2019 compared to 2018. Households cannot regulate the use of heat in their homes (or such regulation in individual apartments has little effect on the apartment block due to the redistribution of heat among other apartments). Therefore, gas-saving factors for households are insignificant. Heat production for government agencies and the industry sector reached 2.8 billion cubic meters. In 2019, gas consumption by the industrial sector had dropped significantly – from 9.4 bcm to 8.1 bcm (or 13.8%).

Petrus van Driel, Chief Financial Officer of Naftogaz Group, is in charge of establishing integrated corporate finance activities and setting financial policy, concepts, and processes in Naftogaz Group.

Mr. Van Driel is also in charge of financial forecasting and planning, supporting the group's strategic activities, and enhancing financial transaction efficiency. Petrus van Driel is a financial professional with almost 30 years of Shell experience, from finance adviser at Billion International (a Shell company) to vice president of accounting and reporting at Royal Dutch Shell. Throughout his career, he has worked in critical financial sectors such as accounting and reporting, business performance management, business partnership, value management, business, and finance process outsourcing, M&A, and investor relations.

Petrus is proficient in Dutch and English, as well as German and French. Mr. Van Driel, a graduate of Thomas More College in The Hague, went on to study business administration at Erasmus University Rotterdam, with a concentration on

financial and economic management. He also participated in the exchange program of the Vienna Academy of Economics and Business Administration.

CHAPTER 3
ECONOMIC GROWTH THROUGH THE PRISM OF SUSTAINABLE DEVELOPMENT GOALS

3.1 Limitations of business as a usual and new economic sustainable trends

Enterprise efficiency has always been at the forefront of economic research. It has focused on prominent business and private enterprise owners, small organizations, and ordinary executives. In today's quarantine environment, many enterprises have ceased to function, but those that have continued their operations have also been confronted with crisis phenomena and limits.

An explanation for the utter incompetence of the practices adopted is that far more money is spent on agricultural development initiatives. When a government chooses between an agrarian development program and reforestation projects, choice tends to favor the former, as it promises to meet the population's food needs. Another reason is that loans like those provided by the World Bank sometimes encourage more deforestation. A country may find it more profitable to generate income from the sale of timber and then use the loans to undertake a program to reforest deforested areas. Consequently, as a result of this arrangement, the loan amount doubles.

According to a recent PWC survey, more than two-thirds of companies already plan to engage with the SDGs, but less than half plan to include them in their business strategy in the next five years. As noted in the 2016 Global Compact CEO Survey, only 59% of companies report that their company can accurately measure the business value of their sustainability initiatives. Consequently, the critical question is: Should the SDGs matter to business? [24]

According to a study by PwC and Deloitte - 42% of millennials and young people of Generation Z started/expanded relationships with companies whose

products/services are beneficial to society and/or the environment, 38% stopped / reduced relations with companies whose activities cause adverse consequences, 70% of respondents in Ukraine choose goods, information about the origin of which is transparent and reliable.[54]

Figure 3.1 shows what the main barrier for businesses to implement the principles and goals of sustainable development is?

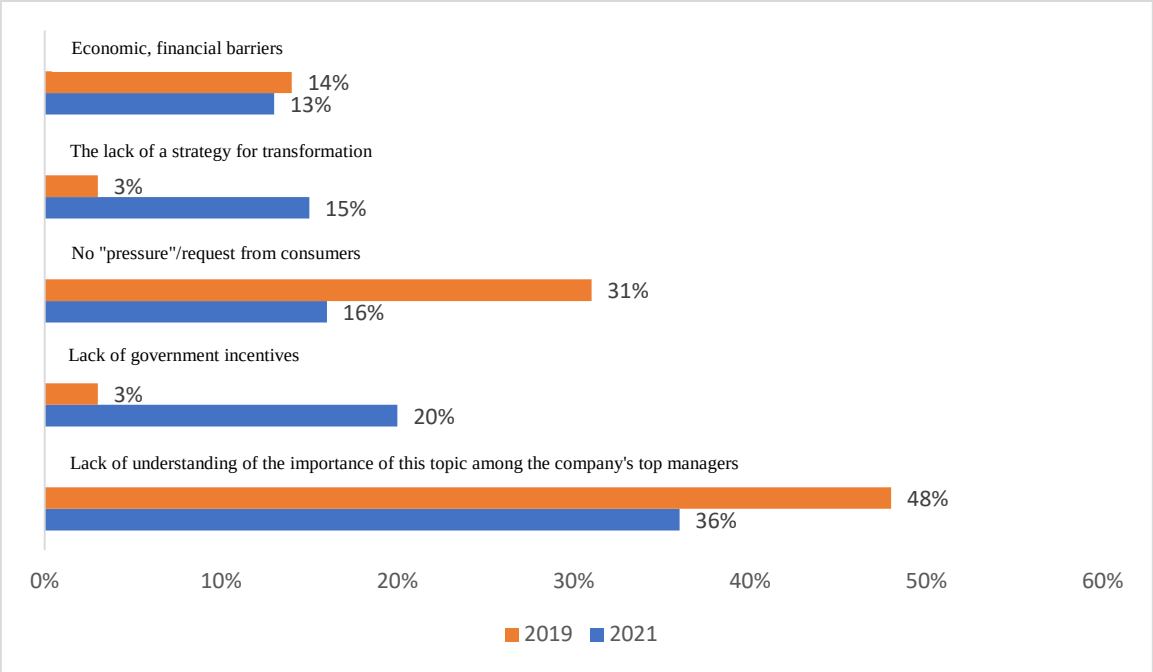

Fig. 3.1. What is the main barrier for businesses to implement the principles and goals of sustainable development? [42]

In the context of the geopolitical situation of recent years, international restrictive measures related, among other things, to political confrontations, trade wars, global competition, and attempts to redistribute markets and create a multi-polar economic world order are increasingly prominent among restrictions. Such measures may be declared at the level of the political establishment, or they may be covert (semi-covert) and not officially published. Sanctions directly involve actions of international coercion and may include political (diplomatic, procedural), military, communication, educational, cultural, and sports, and economic (including trade and financial) sanctions. Economic sanctions are restrictive measures of an economic nature

imposed by one state or a group of states on a particular country/territory to compel it to change its political course. [31]

For their part, brand representatives note barriers such as the need to review the entire supply chain to implement ESG strategies and the difficulty of integrating social, ethical, and environmental factors in selecting and interacting with suppliers.

So, there are a few different types of firms that used tranquil development to conquer reinvention challenges and chart a new course for the company's growth:

- Flagbag (Belgium).

The company is a manufacturer of accessories made from recycled flags. Flagbag gives a new life to flag fabric, usually ending up in the landfill after short use. This model is gaining popularity in the world. Sewing company fabric remnants used, banners, and even unusable parachutes are used.

- Matteco (Germany).

The company solves the problem of recycling used tires and produces rubber mats out of them. Mattego developed its recycling technology and had over 1,000 tons of powder from tires, which is then used to manufacture new products.

- Peerby (Go) (Netherlands)

An online platform where users lend each other consumer items: a variety of equipment, gear, accessories, and the like. This way, they are stimulated to refuse excessive consumption and save resources.

- CupClub (United Kingdom)

A company that developed a deposit system for hot and cold drinks as an alternative to disposable tableware. Customers pay extra for drinks poured into branded reusable cups that can be left at used container collection points. CupClub employees regularly collect the cups, wash them, and redeliver them to the café. [36]

The problems associated with the course of sustainable development are already catching up with the following categories:

Recycled Plastic. By 2025, around 45 percent of the demand for reused polyethylene terephthalate will go unfulfilled. It will have an impact on consumer goods firms that have set lofty ambitions for rPET packaging.

Batteries. According to Cairn Energy Research Advisors, the supply of raw materials such as lithium, nickel, cobalt, manganese, and graphite is less than one-third of what would be required to fulfill battery demand in 2030. It is a considerable danger for firms that manufacture electric vehicles and energy storage devices.

Green hydrogen. It is a potential means of decarbonizing heavy sectors such as steel and cement manufacturing, chemical and petrochemical processing, and large-scale transportation. According to industry projections of supply and demand for green hydrogen, production capacity must grow 100-200 times over the next 30 years to meet these demands. However, achieving this supply growth rate can be problematic, given potential bottlenecks in equipment manufacturing and feedstock development - such as the platinum required for cathodes in electrolysis plants and the lack of renewable energy needed for green hydrogen production.

Eco-friendly cotton. The vast majority of significant clothing brands have pledged to switch 100% to eco-friendly cotton by 2025. However, in 2018, cotton grown according to sustainable production technologies accounted for only 21% of total output. Industry experts suggest that the increase in the supply of sustainable cotton will not happen fast enough to meet the coming demand, as smallholder farmers face severe financial losses in adopting sustainable methods of growing cotton. [54]

It can refer to foreign experiences where environmentally friendly technologies are actively used. Apple, a globally renowned major company, is developing various initiatives to protect the environment. The following are considered priorities: low-carbon production, the safe chemical composition of products, innovative materials (since 2017, 100% of wood fiber for paper packaging comes from recycled materials, and waste reduction through sorting, reuse, and recycling). [41]

There is no longer any need to choose between economic expansion and environmental protection: these two objectives may be met together. Decarbonization and greening the economy will ensure sustainability, create additional economic opportunities through effective environmental management, strengthen competitiveness in world markets, and reduce costs associated with environmental degradation.

The transition to a green economy should consolidate global trends towards increasing people's well-being and social equality, reducing environmental risks and deficits. And success in implementing this course should be ensured by consciously creating favorable conditions for each country, which requires the necessary reforms. Such reforms should be aimed at: increasing public investment and spending; introducing environmental taxes and several market-based tools to minimize the external impact on the environment, which will compensate for the weakness of market institutions; refusal of state subsidies to environmentally harmful industries; strengthening regulatory regulation in environmental protection issues.

Green finance is increasingly seen as a factor in improving the competitiveness of individual international financial institutions and national financial systems. Governments of countries, international financial organizations, private financial institutions, foundations, and several other entities operating in the financial market. [25]

The efficiency of its financing primarily determines the sustainability of a state's economic development. Proper funding of development provides macroeconomic balancing and allows for ensuring high living standards of the population in the long run. An important direction in this sphere is investment provision for the sustainable development of the country's economy. Attracting money from foreign investors supports the activation of the investment process, introducing new technologies, the growth of small and medium-sized firms, and the expansion of the state's investment potential. In conditions of insufficiency of domestic financial resources, external

investments mean the possibility of using the funds accumulated abroad to develop specific enterprises, which will contribute to the sustainable development of the state economy. At the same time, objective reasons reduce the possibility of attracting foreign investment. The most significant obstacles to attracting investment in the economy of Ukraine are imperfect legislation on foreign investment and its instability, underdeveloped infrastructure, and constant changes in the levels of customs duties.

A significant reserve of financial resources to ensure sustainable development of the state economy is the savings of individuals, which can be effectively transformed into investment. The state of the population's savings reflects the country's economic development processes, including social aspects and the efficiency of functioning of the financial and banking system. At the same time, in recent years, the low growth rate of personal savings and their small share in total income indicates a low level of confidence of the Ukrainian population in the state, commercial banking structures for the possibility of their bankruptcy or reorganization, low rates on deposits, lack of guarantees of return of deposits of individuals at the expense of an appropriate insurance fund. [15]

Today, investment activity and the digital economy are becoming increasingly interconnected. The progressive development of digitalization of economic processes is impossible without significant investment, and the most effective investment tools are directly related to the digital economy. A powerful global trend at the current stage of investment policy is the link between the digitalization strategy and the digital economy strategy, which has important implications for investment, and investment also determines the development of digital technologies of network platforms. The main components of the development of the digital economy as the next stage in the formation of a modern model of the industrial-technological and social system of society based on the results of the fourth industrial revolution are regulatory regulation, infrastructure, network security, training of professionals and the formation of technological platforms. This is what the function of the state in

partnership with business should be aimed at, the implementation of which requires an appropriate investment policy.

The Ukrainian state and business, in general, have already joined the work to develop responses to the challenges posed by global trends in investing in digital development. Specialists and executives understand that without digital technology, they cannot compete successfully in the domestic or foreign markets. They appreciate the effectiveness of the solutions they have already implemented. Still, they are very pragmatic about these technologies, focusing on what it is no longer possible to do business without haste investing in fundamentally new areas.

The economic practice has proved that among all the types of resources existing in Ukraine, natural resources - land, water, forests, and minerals- are the primary basis and the most significant economic problem of sustainable development. It is primarily due to their low capitalization. Also, despite the substantial attention given to the social sphere, the social component of sustainable development is deficient. Let's analyze the situation in this sphere in comparison with developed countries of the world. Ukraine's capitalization level is so insufficient that it hinders the development and effective use of the state's human potential. However, in the context of the growing global crisis, it is the latest technologies, as it was already recorded in the previous difficult times of development of the world economy and society, that has become the driver for solving critical problems and encouraging investors to reorient their investments into priority areas, which today are digital technologies. [7]

International and national development banks also play a key role in developing sustainable infrastructure shows in Figure 3.1.1

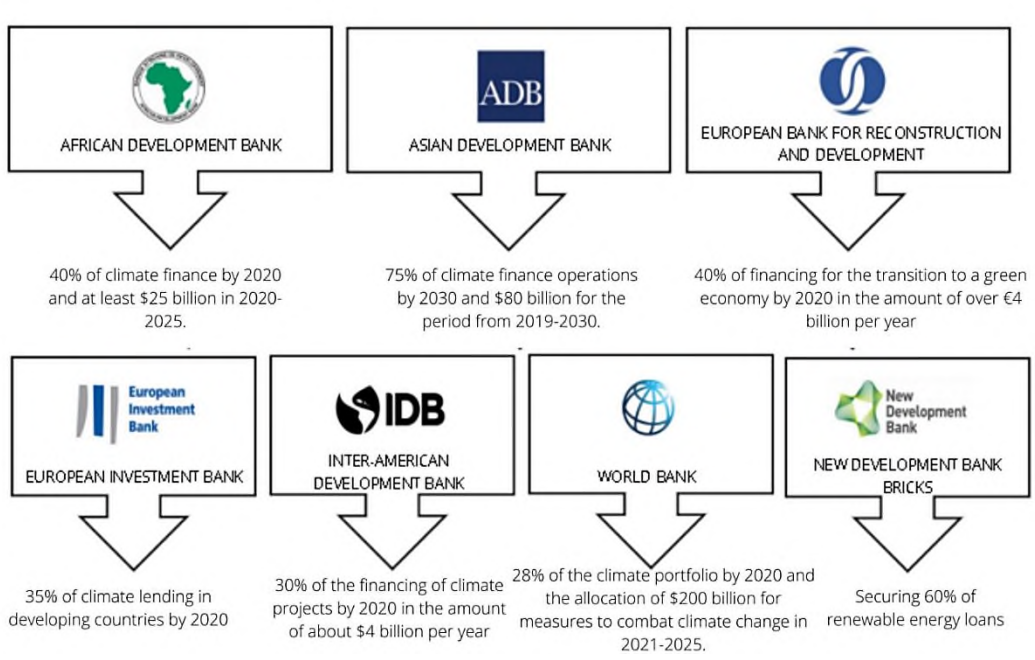

Fig. 3.1.1. MDB Sustainable Finance Initiatives and Commitments [29]

While dedicated professionals and a dedicated sustainability implementation team can play an essential role in achieving a company's sustainability goals, empowering and supporting other corporate divisions is key to integrating sustainability into the company's strategy, culture, and day-to-day operations. Such divisions include research, marketing, supply, human resources, and human resources. Depending on the type of company and its sustainability goals, some divisions are more important than others. For example, a purpose related to the selection of suppliers is more likely to be successful if the department responsible for Supply Chain Management has the authority to achieve it. In any case, personal responsibility for progress towards an individual goal and related tasks contributes to success. Many different methods are used to implement organizational changes and support business integration, ranging from raising awareness, training, and using knowledge and inspiration from invited experts and specialists. Many companies have established interdisciplinary boards, departments, or Sustainability Committees to develop and implement the company's sustainability strategy. [2]

According to European Investment Bank research, there are three primary drivers of the circular economy:

1. Resource constraints: global demand for assets is surging unexpectedly, resulting in ever-increasing shortages of vital raw materials and water.

2. Technological advancement: New technologies enable the development and design of contemporary CE company models. Recycling, blocking alternatives, re-use of resources, and the usability of contemporary IT technologies would not be achievable without advancing new technology and novel techniques.

3. Socioeconomic development: Circular models have a critical role in the context of rising urbanization. City areas may readily build, enforce, and manage structures that can acquire and return various products, materials, and resources while also being fee strong. [6]

McKinsey analysts determined in their 2016 paper "The circular economy: Moving from theory to practice" that:

1. Europe may be able to deliver "growth from within" by implementing circular-economy ideas and integrating new technology and business models.

2. A growth-within-the-EU approach would deliver better results for the EU economy, yielding yearly benefits of up to €1.8 trln by 2030.

3. The circular economy has the potential to produce higher welfare, GDP, and employment outcomes than its current growth path.

4. A circular economy may benefit the environment while increasing aggression and resilience. [27]

The concept of a "sustainable contract" is currently taking shape in foreign legal doctrine, which naturally follows from sustainable development and aims at a contractual interpretation of sustainable development goals and the accumulation of norms that form the legal environment for corporate social responsibility. That is a contract whose object and performance conditions combine economic, social, and

environmental aspects to ensure fundamental human rights and environmental protection. [23]

3.2 Ukraine's economic sustainable perspectives

The need to overcome the existing disparities in Ukraine's economic development and reach the current consumption levels of developed countries is evident. The Ukrainian economy must inevitably follow this path, using the experience of other countries. However, different sources of resources can be used simultaneously to realize the programs of economic growth stimulation: their mobilization of the domestic and foreign financial markets. The help of the domestic market are insufficient to ensure substantial economic growth, and high-interest rates make it impossible to use them to stimulate demand for the products of domestic producers.

All of these challenges are extremely important for Ukraine, as their resolution will help to provide the groundwork for the search for new ways to assure the country's long-term prosperity. Among them, the efforts aimed at transforming the national economy of Ukraine into sustainable social integrity capable of self-reproduction and self-organization are of primary importance from a systemic position.

The Strategy for Economic Policy in Ukraine after the Crisis and Transition to Sustainable Development defines a holistic system of views on the balance of human, social, economic, and environmental development of Ukraine, the legal framework, principles, objectives, and organizational measures that are the basis for a national forecast of sustainable development in the near and distant future.

From June to December 2016, representatives of state authorities and local governments from all regions of Ukraine, deputies of various levels, scientists and education professionals, delegates of civil society institutions, professional groups,

enterprises, mainstream press, and specialists from international organizations met to discuss Ukraine's draft Sustainable Development Strategy until 2030. (Figure 3.2)

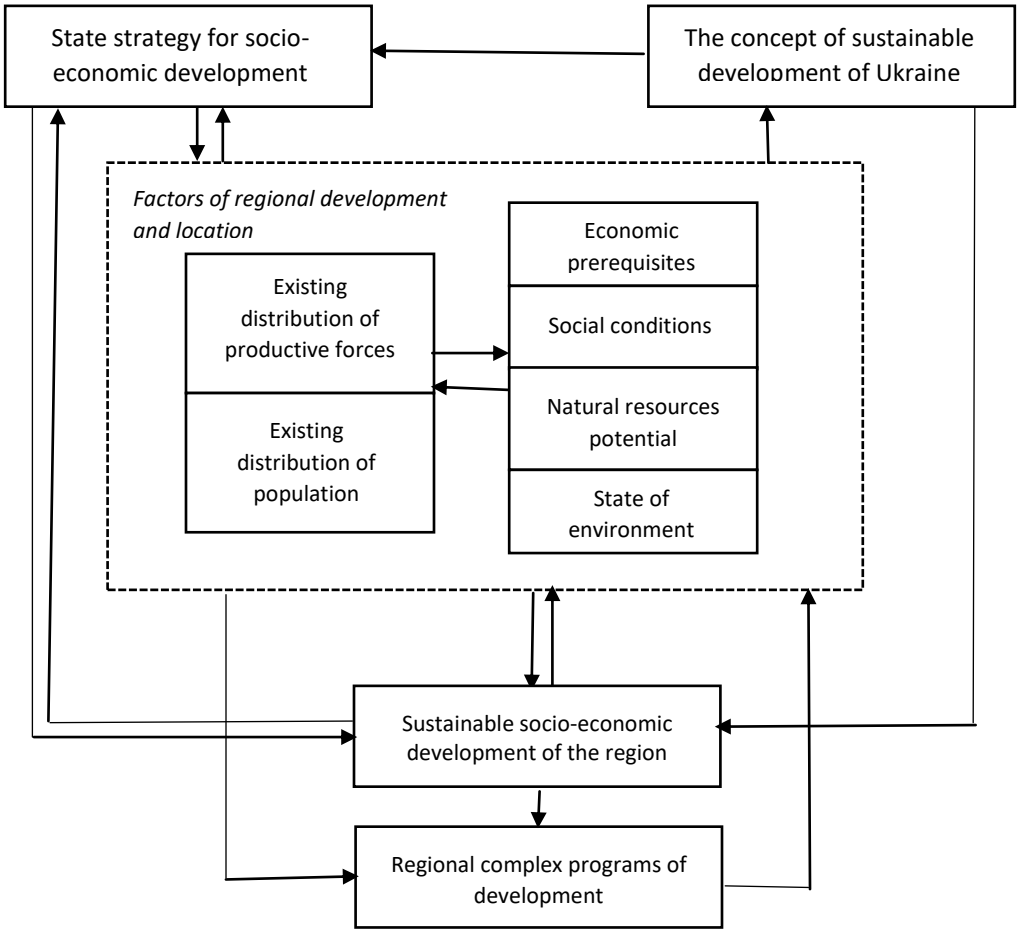

Fig. 3.2. Scheme of sustainable development of the territory

The strategic vision of sustainable development of Ukraine is based on ensuring national interests and fulfillment of international obligations of Ukraine regarding sustainable development. Such development implies:

- overcoming the imbalances that exist in the economic, social, and environmental spheres;

- building a peaceful and safe, socially cohesive society with good governance and inclusive institutions;

- provision of partnership interaction between the state authorities, local self-government bodies, business, science, education, and civil society organizations

- full employment of the population;

- a high level of education and healthcare;

- an environment that will guarantee the kind of history and health of the different generations;

- decentralization and implementation of a regional policy that provides for a harmonious combination of national and regional interests;

- preservation of national cultural values and traditions [12]

Economic growth will be associated not with the exploitation of natural resources but with the widespread application of green economy models. Waste accumulated in the past will gradually be recycled and disposed of, reducing the scale and eliminating a significant number of landfills. Exports will shift from raw materials and primary processing products to a predominance of value-added products. The energy intensity of the GDP growth will be significantly lowered due to energy-saving measures and the application of energy-efficient practices.

Clean energy output will continuously increase, displacing old carbon-based technologies in particular. It will drastically cut greenhouse gas and other pollution emissions into the environment, helping battle climate change. All of these will help improve the environment and public health.

Sustainable development primarily focuses on improving people's quality of life in a favorable socio-economic environment and an ecologically clean, healthy, diverse natural environment. A high intellectual level of human potential should ensure the country's competitiveness in the future. Implementation of the Strategy is aimed at overcoming poverty through effective employment, high labor costs, accumulation of human and social capital, development of the entrepreneurial activity of the population, strengthening the middle class, increasing social standards and guarantees, as well as providing necessary social support to vulnerable groups of the people. The priority of sustainable development policy is to ensure decent living and working conditions in our country. The strategy aims to build a fair and democratic society where human rights (in particular environmental rights and the right to development),

the development of national culture, gender equality, and the growth of social capital (the ability of society to work in groups and organizations, which is based on shared values) will be maintained. [45]

The need for changes in the activities of domestic business entities is associated with scientific and technological progress and systemic changes in their management systems. That is why there is a need to focus particular attention on managing enterprises' sustainable development. Large firms with enough financial and personnel resources and a strategic vision of Ukrainian society and its position in it execute Ukraine's sustainable development plan.

The main emphasis is on the environmental aspect, infrastructure development, and social function. The perception of the concept of sustainable development by small and medium-sized enterprises in Ukraine is low. Since the economy of Ukraine is on the way to the formation and determination of priorities for the upcoming prospective areas of its development, measures aimed at the construction of the foundations of sustainable socio-economic and environmentally safe development will bring our country to harmonious, sustainable development. [28]

Prospective areas for investment in the green economy are seen as improving the energy efficiency of old and new buildings; producing eco goods and services; switching to alternative energy sources (wind, solar, biomass, geothermal energy); increasing confidence in balanced transport development; stimulating the planet's ecological infrastructure, including drinking water, forests, soil, reefs; supporting sustainable agriculture, including organic production. [3]

The sustainable development of Ukraine is possible only when the country's budget is such that it allows this sustainable development. For example, the budgets for 2020: the USA - $4.74 trillion; Poland - $110 billion, and Ukraine - $46 billion. 80-90% of the budget of economically developed countries is filled by entrepreneurs, where 60-80% of entrepreneurs are small and medium enterprises (SMEs). Unfortunately, this is not the case with us. According to Forbes, HBi Dragon Capital

in 2019 the value of the assets of the 100 richest Ukrainians is equivalent to 23% of the GDP of Ukraine and almost equal to the budget of Ukraine. [8]

The prospects for the economic activities included in the problem areas, namely the extractive industries, textiles, and motor vehicles, depend on the development and expansion of domestic demand, which is primarily driven by the growth of household incomes as a condition for the emergence of a domestic market.

Implementing the inertia scenario envisages the continuation of past trends, i.e., the perception as non-priority, of the technological development and digitalization of the economy and the use of human capital. Under this scenario, the Ukrainian economy will grow by an average of 2.8% - 3.0% annually in the next 10-12 years, which will ensure the growth of nominal GDP in 2030 by 40.0% and is accompanied by an increase in the intensity of labor migration. The prospects for the economic activities included in the problem areas, namely the extractive industries, textiles, and motor vehicles, depend on the development and expansion of domestic demand, primarily driven by the growth of household incomes as a condition for the emergence of a domestic market. [30]

The future success of the power sector reform will be mainly determined by the timeliness and completeness of investment and new technologies and the establishment of critical market conditions. The main strategic objectives of the Ukrainian electricity sector are the future incorporation of Ukraine's cohesive energy system into the European Network of Transmission System Operators, as well as the need for a suitable response to significant domestic and foreign long-term development challenges, in addition to the current issues in the energy sector. The fundamental purpose of the industry is to develop an innovative and efficient energy sector in the nation that meets the demands of the increasing economy in energy resources as well as Ukraine's external economic interests. [32]

Currently, energy efficiency projects are operating in the territory of Ukraine. One of these projects is to remove barriers to promoting investment in the energy

efficiency of public buildings in small and medium-sized cities of Ukraine by applying the ESCO mechanism. The project aims to reduce greenhouse gas emissions by creating a favorable legal, regulatory, and market environment and developing institutional, administrative, and technical capabilities to implement energy-efficient measures in public buildings. These institutions include hospitals, schools and higher education institutions, government agencies, kindergartens, orphanages, pharmacies, employment centers, libraries, and museums where the ESCO model is planned to be implemented. [17]

It should be recognized, however, that applying the notion of sustainable development does not ensure a speedy rise in people's well-being. However, it will require hard work and the consolidated efforts of politicians, administrators, scientists, and the entire progressive population of Ukraine. Another prerequisite for sustainable development is not only the Ukrainian people's inner will and cumulative energy but also the threat from the outside world, which is manifested today in Russia's aggression against Ukraine. Nevertheless, Ukrainian scientists and all people aspire to sustainable development and, through their work (both scientific and physical), will enter the path of progressive civilizational development, the success of which will be evaluated by future generations. In doing so, the people themselves are capable of taking a new, higher stage of development. [52]

3.3 Strategic management of the Naftogaz

- STRENGTHS 1

  The system fulfills the criteria for ownership restructuring conditions.

The reorganization plan suggested by Naftogaz Ukraine is substantially consistent with the European Commission's proposals. It envisions the separation of gas transmission businesses based on ownership.

The trunk pipeline assets and related activities are intended to be handed to a newly formed operator which should report to Ukraine's State Property Fund. This concept would completely fit the criteria of the priority reorganization framework established by the Energy Communities and EU authorities.

- STRENGTHS 2

MGU has had more freedom since its inception. The GTS provider is a young corporation with little historical memory.

It can be suggested that a newly established business operate the GTS, which potentially allows for the development of policies, practices, and norms that guarantee not only the operator's formal and legal autonomy but also the practical implementation among all prerequisites for an individual operator, with governmental will and the needed common understanding of all stockholders.

It is impossible to establish a new corporation whose primary duty will be to oversee the state's gas transmission infrastructure without first drafting the relevant legislation and potentially by-laws. The necessary political will can be accomplished by leveraging optimal gas transmission methods. Furthermore, this benefit is dependent on the formation since it is now intended to be founded and run as a component of the Naftogaz group of firms for some time.

Under exceptional circumstances, Naftogaz's suggested model for its reorganization allows for establishing quality criteria for the GTS operator's autonomy and transparency from the start.

- STRENGTHS 3

Splitting the transit operator from other operations would improve openness and commercial appeal.

The split of the transmission and storage operators will improve their processes, architecture, and perhaps human resources. MGU will be free of cross-subsidization across different companies, making its operations more coherent and increasing its investment appeal.

The World Bank advisors' study, besides these factors, identifies total unbundling, including all individual tasks in the gas industry, as the most suitable and intended effect of the reform, albeit it assigns it to a lengthier restructuring stage, projecting that it will take 3 to 5 years. [56]

Furthermore, analysts believe that the retail for gas depository services in the EU lasts weakly. Between 2010 and 2015, 2.7 billion cubic meters of capacity were deactivated. National regulators' gas storage charges are frequently expensive compared to the real supply-demand equilibrium, and players may decline these operations in a competitive market. Consequently, the EU has discovered that this firm is being subsidized. Nevertheless, this projection is only valid for the next five years, which the longer-term prognosis is often unfavorable.

A more demanding but efficient idea is to separate the transport operator from other industries, including the warehouse industry.

- STRENGTHS 4

PJSC UkrGazVydobuvannya could start preparing to terminate the special duty regimes and probable restructuring.

Naftogaz Ukraine is in charge of selling the goods of PJSC UkrGazVydobuvannya. If UGV stays a participant, it would have more preparation time for the anticipated price harmonization in 2017 and potentially privatized.

Presently, Naftogaz Ukraine purchases all or nearly all of the gas generated by UkrGazVydobuvannya at a predetermined price and distributes it to satisfy household requirements, getting sufficient reimbursement from the government budget.

It is best to execute this when the particular duty environment has expired, and the proper current price for the company's assets was already attained. Under this timeframe, UGV might have been modernized and subsequently privatized over the following three to four years or until 2020.

If the firm is genuinely under Naftogaz's control, it might be preferable to continue its projected 2020 expansion plan rather than forming a holding company whose structure is unknown.

Simultaneously, the Naftogaz Ukraine model lacks documentation of privatization obligations. That is, this matter will be left open and at the prerogative of the NJSC management.

- STRENGTHS 5

MECIU does not become a direct shareholder of government property, which is an unsuitable purpose for it.

Suppose the State Property Fund has corporate power in the transporter provider and is not involved in formulating and executing energy sector policies. In that case, the possibility of political influence on the operator is reduced, as is the threat to its autonomy.

To boost the sector's attractiveness and competitiveness, it is undoubtedly preferable to confine the state's activities in the oil and gas company to those of a subsurface exploitation rights granter, a commercial organization, a controlling body, and so on. However, the restriction on GTS and UGS privatization precludes the threat of political control from being eliminated by the privatization of GTS and UGS assets. Nevertheless, the OECD Guidelines on Corporate Governance of nationalized Enterprises state that are preferable to guarantee as much autonomy for state agencies, particularly the Ministry of Energy, throughout their actions in several areas. This situation will facilitate this by barring the MECIU from gaining property rights in a corporate company. Even though the GTS and UGS are currently near to becoming natural monopoly assets, that analyzes the Ministry's potential to control rivalries and distort the sector, this opportunity may arise in the long-term in the segment of gas storage services, given the Ministry's strategies with further privatization of the gas storage areas. Choosing any entity other than the MECIU as a significant stockholder for the GTS operator, irrespective of the SPFU's precise details as a public body, is

similar to the general reasoning of transformation of the public administration, specifically the government control liberalization and decentralized vector.

- WEAKNESSES 1

Naftogaz's vertical integration continues, necessitating the development of new laws and regulations.

Even when the UGS assets are retained in the Naftogaz group's framework, the firm will be vertically integrated within the scope of the Directive. CMU Resolution No. 758 of October 1, 2015, imposed a price limitation for gas delivered to homes, thereby restricting the cost for gas generated by UGV and leased through Naftogaz until April 2017.

However, a specific set of internal regulations and secondary laws must be devised to guarantee the sovereignty of PJSC UkrTransGaz as a UGS operator inside the Naftogaz Ukraine framework.

The NJSC Naftogaz concept mandates the removal of the gas transportation operator's activities and assets from the holding structure. However, the gas storage operator remains in the holding firm. Both the Directive and the Law "On the Natural Gas Market" contain a somewhat sophisticated legislation structure and requirements to ensure the UGS operator's individuality from the impact of people and firms involved in gas production and supply operations within the organization. The Directive, in general, and especially, prohibits the mixture of UGS operator managerial roles with those in other modules of the group, and it calls for the advancement of measures to ensure that the operator's expert preferences are considered, that it has the acceptable level of authority over assets, and so on.

As a result, the restructuring based on the parameters provided by Naftogaz will necessitate more time and effort to build such norms.

- WEAKNESSES 2

Maintenance of Ukraine's NJSC Naftogaz's significant impact on the gas market and likely non-transparent administration in the corporation.

According to Naftogaz Ukrainy's 2014 annual report, after the gas transportation industry (31 % result) is eliminated from the organizational setting, only a tiny portion of the oil business (10 %) would exist in Naftogaz's operational area. Thus, the company's activities in the regulated sector (gas trading, manufacturing, and warehousing) become more than considerable (59%).

NJSC Naftogaz of Ukraine publicly undertakes to advance the reorganization by eliminating vertical integration via the progressive privatization of all assets other than those required to meet its commitments as the suppliers of the last alternative. Nevertheless, the model suggested by Ukraine's Naftogaz does not contain any irrevocable duties on such privatization of many other assets. Whether such commitments aren't included in the existing scheme, Ukraine could lose an opportunity to transform the industry and postpone the creation of a potentially competitive marketplace. Alternatively, NJSC Naftogaz of Ukraine would continue to remain a vertically integrated company with significant market prospects. This influence will be shown, among many other aspects, by taking charge over PJSC UkrGazVydobuvannya, an essential participant in the gas production market, until its total privatization, which is presently anticipated for the 2020s.

Since Naftogaz's current vertically integrated organization and cross-subsidization of multiple operating sections, there is a lack of accountability in utilizing financial expenditures, making their efficacy doubtful. It is supported by business auditing.

- WEAKNESSES 3

Without subterranean stores, a gas transportation infrastructure may provide a much less significant position, especially in terms of ensuring an uninterrupted gas supply to the EU.

When a company or individual is interested in engaging in GTS management to assure continuous gas supply to the EU, and the UGS is a crucial part of the supply

chain, the isolation of the warehouses may limit such investor's participation in the GTS.

There is currently no publicly accessible data on the role of the UGS in Ukraine's fulfillment of its commitments to delivering Russian gas to the European community. According to the publications referring to the Technological Arrangement between NJSC Naftogaz of Ukraine and PJSC Gazprom, the UGS is required to conduct the current agreement of gas transportation to the EU borders, as long as the so "transaction day" (24 hours) that is provided for the transfer of gas from the incoming locations to the European consumer doesn't correspond with the period of real transmitted of gas throughout Ukrainian territory (36 hours). So this option enables the parties involved to consider condition 2.8 of the Technological Contract variably. Unfortunately, it is unclear whether or not this condition will alter when the term ends.

Furthermore, according to recent data, the gas transport network can only balance itself for one operating workday. Suppose UGS continues to be a significant element of Russian gas distribution to the shared border. In that case, the segregation of the facilities creates a bad picture of transport dependability and consequently affects European investors' interest in a significant GTS operating cooperation. It may be because their engagement in supervision will not allow them to assure gas transportation through Ukraine separately from the other electorates.

The global implications of Ukraine's GTS are hard to ascertain. Furthermore, in the 2014 annual report of NJSC Naftogaz of Ukraine, the cost of the gas transit service assets was UAH 239.7 bn, or 46.5 % of the company's overall volume of assets, while the cost of the UGS was UAH 146,2 bn or an extra 28.4 %. As a result, while selecting alternatives to Naftogaz transformation, the implications for financing such important government assets should be seriously evaluated.

- WEAKNESSES 4

The SPFU somehow doesn't address the issue of vertically greater autonomy from the state.

The SPFU is a special-status central core with executive power whose principal function is to carry out the government's privatizing plan and related activities. Simultaneously, the SPFU, like the agencies, may be heavily reliant on the Prime Minister's influence and power in some scenarios, which has the same hazards as the structure of the GTS operator's allegiance to the Department of Energy.

Assessing Naftogaz's claims that SPFU has certain benefits in the form of proper defense from an interruption in its operations by other institutions, it is worth noting that, given the present allocation of power, the Head of SPFU and the Deputy of Energy and Coal Mining industry, in their potentials as tops of central bodies of executive authority, are both obligated to deal with the Prime Minister of Ukraine's guidelines.

The method for selecting the Head of SPFU is typically the same as that for establishing members of the Cabinet of Ministers, with the Prime Minister contributing.

As a result, strict cooperation with the need to exclude indirectly or directly contemporaneous management through the GTS operator and other enterprises will necessitate legislative changes in both existing techniques.

It is hard to determine how autonomous the direct stockholder, the steering committee, or any other governmental entity of PJSC MGU will be in the lack of a specified model of organizational public administration for state-owned firms.

- WEAKNESSES 5

A significant amount of time is required to analyze the GTS and UGS independently and set up a new GTS operator.

The split of GTS and UGS carriers implies the division of assets, people, relevant data, maintenance and repair departments, and so on. There is no clear information on the amount of engagement between such teams, but this practice will

need support and efforts from Ukraine's NJSC Naftogaz. Experts estimate that establishing a completely autonomous TSO will take approximately two to four years.

Ukraine's gas transportation complex has never been separated into warehousing and distribution branches, instead of staying under the administration conveyance of a single operator that was a component of a vertically integrated state-owned company. Such an approach makes availability to the intricacies of what each of the two segments works rugged and provides pilot projects of the discrete parts unfeasible. At the moment, the GTS is only being assessed as an integrated industrial group, and its worth in 2013 was estimated to be USD 20-26 bln by Baker Tilly. Still, some analysts estimated the GTS to be worth USD 61 bln.

While the World Bank specialists agreed that the platforms are functionally administered independently in their assessment, they also acknowledged the difficulty and substantial time necessary for total and practical division. Beginning this complicated effort concurrently with the other aspects of restructuring might be very risky regarding the time and efficiency of execution needed.

When the newly formed MGU shipping operator acquires the majority interest and administration of UkrTransGas PJSC, the intimate personal relations with Naftogaz Ukraine would persist, which is unacceptable.

If MGU hires a new team, this would take even longer and, most critically, will necessitate UkrTransGas' readiness to share the appropriate data and specific skills.

Furthermore, according to the Naftogaz report, the "technical maintenance department" will continue within PJSC UkrTransGaz. Till an extensive response can be provided, this might imply that Naftogaz wants to quit all engineers working to maintain both the GTS and the UGS under the supervision of UkrTransGaz, while Naftogaz rejects these aspirations.

Such strategy also violates UkrTransGaz's stated goal to manage employees better and will probably hold its absolute power, and hence the Naftogaz group's

power, control management of the created by an act GTS operator and possible owners and operators of commercialized UGS.

- OPPORTUNITIES 1

The GTS's greater business appeal in the absence of UGS as solely stock holdings.

The GTS's excellent commercial success makes it appealing to investors. Whereas if technologies stay available worldwide, the non-transparent operation of most UGS and the typically unfavorable state of the global and European storing markets will limit their desirability.

Naftogaz's 2014 annual report shows that the operating income from foreign natural gas transport systems totaled to 16.8 billion UAH. Local transportation income increased by UAH 7.4 bln. As a result, the total revenue was UAH 24.2 bln. On the other hand, the fuel storage company produced a total income of UAH 1.4 bln. After subtracting operational expenses, the net result of transportation activities in 2014 was a profit of UAH 7.5 bln, while gas storage services resulted in a deficit of over UAH 3 bln.

Potential investors will be drawn in by the comparatively financially strong gas freight forwarder, which does not need to cover functioning deficits of gas stockpiles and raise money to modernize them. Furthermore, it really should be emphasized that each of the variables contributing to the UGS's damage operation is a reduced gas price, which works as a parameter in estimating service charges, as well as a great number of running discretionary spending (the outlays are estimated at UAH 4.4 bn by contrasting the operational revenue and deficit before tax for 2014). Therefore, there is a potential for the system to function as a consequence of a potential future improvement in total average gas prices and reduced expenses, including more efficient gas measuring and control and modernization of warehouses, about which no complete data is available.

- OPPORTUNITIES 2

There is no need for any substantial legal transactions involving GTS assets. Tax consequences are unlikely to exist.

The State Property Fund currently holds the GTS in terms of the law. As a result, in the framework described by Ukraine's NJSC Naftogaz, it is feasible to save energy/cost by not tax payments for moving properties between agencies.

Currently, UTG operates Ukraine's gas transportation system through deals involving NJSC Naftogaz of Ukraine, PJSC UkrTransGaz, and the SPFU. Contract No. 76 of February 4, 1999, between State Property Fund and Naftogaz about the use of non-privatizable government property, and Agreement No. 19/275 on June 17, 1999, between Naftogaz and UkrTransGaz.

As a result, there would be no need to transmit GTS state assets to another Ukrainian public entity. As a result, time may be saved at one stage of restructuring, and no new tax obligations will be incurred due to the operation of assets that spent almost UAH 240 bn in 2014. [60]

- OPPORTUNITIES 3

The development of a competing gas storage industry.

The Naftogaz initiative to privatize storage facilities that appeal to investors will establish circumstances for creating competitiveness.

According to UkrTransGaz's revised schematics of gas storage quantities, the greatest volume of gas stockpiled before the heating season totaled around 16.8 billion cubic meters in October 2014 and 17.1 billion cubic meters in October 2015. Therefore, at the greatest requirement for strategic gas stocks for Ukraine's internal use, almost one-third of the estimated amount of 31 billion cubic meters is available.

Ukraine's NJSC Naftogaz recommended conducting a full economic and strategic study, as well as a technical justification, to be utilized in the future to carry out the planned partial privatization, which, as per NJSC Naftogaz of Ukraine personnel, should be decided and authorized by the PJSC UkrTransGaz management board or NJSC Naftogaz of Ukraine directly. As an outcome of this disengagement, a

corporate storage offer may emerge, with demands predicted to derive from both local manufacturers and domestic and gas export-import merchants.

Encouragement of the formation of different competition fits the goals and purposes of the Directive. However, particular concerns remain unanswered regarding the sufficiency of the authorities given in commercial company supervisory boards to have disposed of critical government assets privatized and also the time necessary to conduct a complete economic study of all warehouses that may be privatized. Furthermore, privatization of public estate is the responsibility of the State Property Fund of Ukraine, not private entities that occur to run such resources.

- THREATS 1

The untapped promise of energy sector reformation.

The reorganization plan suggested by Ukraine's NJSC Naftogaz satisfies the privatization goals since the newly formed transit operator will be more flexible. The Naftogaz group will preserve a creating a final of varied functions in the gas industry. Refusal to support adequate complementing adjustments in other gas firms and transportation fragmentation risks losing essential pressure for systemic changes.

Ukraine must implement reforms following best practices in Western nations as quickly as practicable. European authorities and foreign financial institutions now require the Naftogaz overhaul. These criteria put tremendous pressure on regarding policy. Again, when the primary conditions have been satisfied legally, it is possible that, in the absence of additional pressure, the tempo of future, far more profound changes to reduce monopolies will stagnate.

The Naftogaz presentation dedicated solely to the divestiture of the trucking industry, as well as multiple comments by corporate leaders, testify to the energy giant's announced an ambition to further reform through nationalization and dismantlement of its vertical integration within certain conditions in the future. However, in the lack of clear, accurate stimulus, this plan does not appear likely to be

implemented since this question will be entirely dependent on the voluntary will of the corporate sector in 2017, at the earliest.

Solely focusing on the consumption for GTS operator disconnection without the other concurrent stages for bigger liberalization of enterprises might well try to delay the accomplishment of the actual goal of power sector reform, namely the establishment of intense competition in the gas sector, that is presently monopolized by one massive nationalized company.

In this regard, it must be highlighted that any privatized, the significance of which is underlined in this article must be carefully planned upon the basis of the rigorous economic and financial study, a statement with which NJSC Naftogaz of Ukraine concurs in its concept.

- THREATS 2

Prospective violation of the 3ep with further privatizing via the SPFU.

The SPFU maintains private property rights in the gas transportation operator while also keeping other state assets in the energy market for privatizing reasons, directly violating both the Directive and the Law on the Natural Gas Market.

The Directive's primary qualification and goal under the "ownership unbundling" structure is the real-estate separation of functional and esthetic transport facilities from the contig operations of natural gas production and/or delivery to customers. By selecting this approach, which would also be a concern in European Commission practice, Naftogaz Ukraine recognizes the State Property Fund as the government entity in charge of administering the corporate power of the suggested made by the state GTS provider. According to the business's views, the SPFU has high degree of autonomy from the CMU under relevant legislation.

Simultaneously, many players agree on the strategic goal to privatize several energy industry enterprises, specifically PJSC UkrGazVydobuvannya. When such public assets are transferred to the State Property Fund, the official commercialization body, then that will unavoidably exert concurrent command over the GTS operator

and such gas manufacturers or gas supply businesses, which is a clear and blatant breach of the Directive's and the Natural Gas Market Law's provisions. The very same principles apply to assets that generate electricity.

It should have been mentioned that while addressing the liberalization movement in other European nations, a concept was expressed in which parallel control may be permitted if transitory and other conditions are met. Similar dangers will be avoided if any other entity allowed to retain state-owned comparative advantages but not engaging in future privatization is employed to hold corporate power in the GTS provider.

- THREATS 3

The GTS-UGS system's synchronization deteriorated when the functional relationships were converted to contractual. A delayed enforcement process by the participants.

The separation of the gas transportation and storage operators will establish commercially contractual arrangements with them as two independent entities. Something may disrupt and hinder their cooperation and interaction, particularly in real emergencies.

The legal, technological, and operating partition of the current gas transportation system, notably among the recently created GTS operator and PJSC UkrTransGaz as the gas storage contractor, is a massive part of the NJSC Naftogaz of Ukraine strategy.

Still, in the early stages, the substitution of functional ties between the new fuel transmission operator and PJSC UkrTransGaz as the warehousing operator will necessitate some time to establish legal bases for collaboration and integrated operations of both platforms. During the privatization phase, the integrated process of any aspects of the logistics and transportation network will necessitate a more sophisticated structure of commercial interactions among a more extensive array of stakeholders. It is crucial to note, meanwhile, that modern networks of local to global

regulations and adequate mechanisms for enforcing them should be sufficient in most cases to ensure the joint collaboration of various stakeholders.

Moving away from an operations and maintenance relationship dynamic where the top of one organization does have the privilege to give codified instructions and directions straightforwardly would increase the risk of worsening cooperation since the only method to implement statutory responsibilities between the GTS operator and the UGS operator stays to be sent to prosecution.

Such possible coordination issues may evolve into a danger that must be considered immediately in crisis and contingency scenarios, particularly during the summer period and those associated with the international shipment of natural gas to European customers.

- THREATS 4

The UGS has completely lost its investment appeal.

UkrTransGas's financial model without a transit company will lower the prospects of engaging an investor and considerably minimize the likelihood of securing the capital required to modernize and grow Ukraine's UGS operation.

Natural gas storage creates roughly UAH 3 billion in expenses, according to the financial data reported in the annual survey of NJSC Naftogaz of Ukraine for 2014. The Naftogaz proposal is that even the most monetarily effective implementation of the established warehouses be privately owned after a comprehensive technical and economical evaluation and on the basic principle of the management strategy by the UkrTransGaz or Naftogaz management board to take into account the key position of such establishments and the incentive to keep them in nationalization.

Therefore, although recognizing the fundamental significance aspect, the aim is to preserve the most problematic UGS table in the Naftogaz Group's total asset, with the only funding source being the internally generated cash flow of the still huge deficit Naftogaz of Ukraine or a loan from a bank.

Neither of the preceding possibilities is suitable since none fit the company's management's strategic aim of transitioning the state-owned behemoth away from reliance on budgetary assistance and toward self-sufficiency. Potentially increasing demand for gas storage services from EU member-states and the worth and financing of such assets directly proximate to the EU's eastern borders may be especially essential in this respect.

- THREATS 5

Greater susceptibility to external pressures, notably those emanating from Russia.

Although only natural gas transportation assets are removed, the vertical integration of the several different gas companies will keep Naftogaz as the primary operator in the gas industry, and present and projected financial issues in some activities will necessitate monetary assistance for the entire community. Furthermore, any pressure on any section of it would put pressure on the country's overall energy industry.

In a conflict with the Russian Federation, which has typically used its natural resources to exert pressure and regional influence, strategic assurance should be given special consideration. The Russians' interest in the Ukrainian GTS is well recognized, and its critical role in supplying Russian gas to Europe even after the existing transit contract expired in 2019 enjoys consistent backing from the workgroup. The reliance of many parts of the Ukrainian gas sector on the vertically integrated Naftogaz, as well as the major influence of potential indirectly or directly international collaboration with Gazprom on the latter's operations, give Naftogaz Ukraine a distinctive position, along with its board's duty for corporate strategy power distribution security. Also, it implies that if Gazprom attempts to influence gas production, delivery, or storage, it may do so through a characterized accessible point - management consultancy services with Naftogaz.

Increased diversification of separate enterprises and the transfer of assets not already under Naftogaz's ownership to multiple public or private enterprises may

spread this point of liability and effectively mitigate the risks connected with Gazprom's vigorous economic approach, including those stemming from the risk of personal corruption, extortion, or mutiny on the part of business executives. This must be underlined that the new managerial team's cumulative management of the group provides no cause to look for symptoms of this risk becoming genuine; however, while deciding on the best restructuring model for the state-owned enterprise, all related risks must be considered.

3.4 Naftogaz innovative activity management

The Cabinet of Ministers of Ukraine adopted a decision on the unbundling of NJSC Naftogaz of Ukraine, thereby allowing to complete the gas transmission system operator (TSO) separation into an independent structure.

“At last, we have separated the function of natural gas transportation from its production and supply. It's something that has not been accomplished in the previous three years. Consultants have formed an impartial operator in full accordance with European legislation. Thereby we will open up an opportunity for leveraging investment in the Ukrainian GTS”, comments Prime Minister of Ukraine Oleksiy Honcharuk.

The approval of the Naftogaz of Ukraine's unbundling model will prolong the procedures started earlier and complete the process by the end of 2019.

“We have developed the model of unbundling of the Naftogaz of Ukraine in line with Ukraine’s commitments to implement the provisions of the Third Energy Package. We just managed to kick-start the situation ahead of the Trilateral negotiations between Ukraine, the EU, and the Russian Federation. The Ukrainian gas transmission infrastructure must be reliable and uninterrupted for suppliers and customers from EU nations. Depoliticizing the issue of GTS management will give

the country a stronger position in future negotiations", said Oleksiy Orzhel, Minister of Energy and Environmental Protection of Ukraine.

Apart from that, the Government has also delegated to the Ministry of Finance of Ukraine an authority to manage 100 percent of the Main Gas Pipelines of Ukraine (MGPU) PJSC, thereby ensuring the independence of the new GTS operator from NJSC Naftogaz of Ukraine, as well as full separation of gas transportation activities from gas production and supply activities. Simultaneously with the transition of GTSO under the management by MGPU, the state will place the GTS under the control of a new TSO.

Having finalized the unbundling process, Ukraine will step up in the development of the gas market and ensure the implementation of its commitments under the Association Agreement with the EU.

Naftogaz contributes to sustainable development:

- Reducing emissions - Combating climate change and reducing greenhouse gas emissions is a global challenge that requires joint efforts. Naftogaz is aware of its role in the fight against climate change, which consists in supplying gas as a less carbon-intensive fuel that will help in the energy transition. The company supports Ukraine's goal of achieving climate neutrality no later than 2060. In 2021, Naftogaz set a goal to reduce greenhouse gas emissions from operating activities to net-zero by 2040. A comprehensive decarbonization plan is currently being developed, which will take into account the advantages and accumulated experience of best international practices and standards.

- Greening of production - Preserving the environment is an absolute priority for NJSC Naftogaz of Ukraine and its subsidiaries. The firm is committed to decreasing the harmful environmental effect and environmental hazards associated with its manufacturing activities. The company's unified environmental policy aims to ensure adequate environmental management of enterprises, implementing leading environmental standards and applying best practices.

- Environmental Management - The firm has built an environmental management system in compliance with the international regulation ISO 14001 standards. In 2021, the company successfully passed an independent external assessment (recertification audit), and TÜV Austria, an authorized international certification authority, issued a certificate of adherence with the processing system with the criteria of the international standard ISO 14001:2015.

- Labor protection - Naftogaz has introduced the “VISION ZERO” Vision – the HSE (Health, Safety and Environment) vision, according to which injuries, deaths, accidents and other negative consequences from operating activities are unacceptable. One of the main principles of Naftogaz's policy is the priority of life and health of employees, full responsibility of managers of the company's businesses for fostering safe and healthy working environments. The company builds its work in this direction based on an industry-specific occupational health and safety management system, which is constantly updated and improved following international standards.

- Charity - In addition to implementing social projects, Naftogaz is one of the largest providers of charitable assistance in Ukraine. We are ready to respond to any national-level challenges faced by the state. The company actively promotes a culture of corporate charity and volunteering.

- Education - Quality education is essential to every person's life. The population's education level determines the economy's efficiency, development, and competitiveness. That is why Naftogaz supports educational projects to ensure sustainable development for future generations, expand individual employment opportunities, and contribute to the potential growth of the well-being of our fellow citizens. [61]

CONCLUSIONS

Sustainable development is increasingly at the top of the global policy agenda, and its achievement requires the joint efforts of economic actors worldwide - states, financial institutions, and businesses. Not only has the concept of sustainable development evolved over the past decades, but it continues to evolve in response to new challenges on the global agenda. In doing so, some approaches have become outdated and modified by more progressive and integrated systems, some of which have sought to elucidate general patterns.

However, despite the debates and lack of elaboration of theoretical approaches and methodological tools for implementing sustainable development, it is evident that its goals can be fully embodied only at the global level. It is essential for humanity to realize now that the use of natural resources cannot be endless. Endless use will deprive them of the possibility of recovery, and a global ecological catastrophe will be inevitable. Therefore, countries' efforts must be directed to ensure that the functioning of their economies is based on the use of environmentally friendly, energy- and material-saving technologies that take into account the minimization and recycling of waste.

The concept of sustainable development aims for balanced, environmentally sound socio-economic development without exhausting natural resource potential. It

implies greater accountability for actions that are detrimental to any stakeholder group. In doing so, the concept of sustainable development describes not the final state of the system but a process of change like activities in which resource use, investment, technological progress, and institutional change are consistent with meeting present and future needs.

In different periods of human history, economic, social and ecological problems have been given unequal attention: economic priorities have been supplemented by social and ecological aspects, which should have brought humanity closer to sustainable development. At present, this is no longer enough: there is a need for a very delicate balance between the natural and the artificial, and the survival of mankind depends directly on wise management.

Despite the relevance of issues related to ensuring sustainable development for all countries without exception, a review of international practice and the experience of other states suggests that there are no universal approaches and tools for ensuring sustainable development.

Alignment with the SDGs gives companies more options for managing risk. The emphasis on transparency and accountability, combined with environmental pressures, leads to increased regulatory scrutiny. Political and regulatory risk has significantly increased in emerging markets since the 1980s. Companies that explicitly recognize the changing environment in which they operate can implement appropriate strategies to address it. Strong relationships with the community, goodwill from governments, and respect from locals can reduce political and regulatory risks. An ecologically balanced economy is characterized primarily by the fact that it takes into account the consequences of the relationship between ecological and economic systems. Such an economy regards humans as a significant component of the economic system, but only on the condition that human interests evolve in tandem with the progress of nature, i.e., within the natural potential of the environment.

The concept of responsible and sustainable investment based on ESG factors is based on the same principle as sustainable development, but with a focus on company operations. Investors use it to evaluate companies in three aspects: environment, social development, and management. The environmental dimension considers the environmental impact of a company's activities. The social aspect includes the well-being of employees and local communities, while the management factor considers such components as corruption, business ethics, gender composition, and top managers' remuneration.

From the point of view of enterprises, the notion of sustainable development includes more than just environmental protection, for example, reducing emissions and ensuring an appropriate level of safety for its employees but also serves as the basis for intelligent management of the company. Making balanced and informed management decisions and assessing the fundamental level of activity of the enterprise requires a monitoring system that not only tracks all development processes but also gives a forecast for the future.

The global market for sustainable infrastructure is actively developing - new instruments of green project financing (green, social, sustainable, blue, transition bonds) are being formed, and international initiatives to stimulate sustainable infrastructure and standards for assessing its quality are being developed. At the same time, investors increasingly consider ESG factors when making decisions.

In the context of innovative development of Ukraine in the environmental sphere, it is advisable to pay attention to the development of biotechnologies and alternative energy sources, prevention and elimination of negative consequences of climate change, prevention of land degradation, loss of biodiversity, desertification; environmental management and marketing, etc. Sustainable development can be considered as a leading principle of environmental law and environmental safety law, a regulatory process aimed at regulating various public relations, including environmental ones. Simultaneously, the Sustainable Development Model must be

improved, review approaches to its formation, develop an ecological and legal doctrine of sustainable development, defining in it an effective legal mechanism for taking measures and monitoring their implementation, and involve the environmental community in this process.

Naftogaz is responsible for doing business and takes into account all current management trends of modern oil and gas companies. Responds to current challenges and needs of Ukrainian society, while acting in future generations' interests. Sustainably creates value for customers in terms of environmental protection, social policy, as well as financial sustainability, and accordance with corporate governance standards.

The company pays special attention to the issue of climate change. Such challenges require a difference in the economic structure and will determine the course of development of countries and companies over the current century. Therefore, achieving zero emissions is a key goal set out in the Naftogaz strategy. A plan is currently being developed for the sustainable long-term transformation of the oil and gas company, which ensures energy independence through increased production and diversified demand for gas transit, into a sustainable energy supplier company with minimal environmental and climate impact.

The company is a member of the UN Global Compact Network, shares its principles, and chooses the following priority sustainable development goals in the process of implementing its business activities: good health and well-being, quality education, clean water and proper sanitation, affordable and clean energy, sustainable development of cities and communities, combating climate fraud, partnership for Sustainable Development.

As a result, in today's market conditions, maintaining sustainable development is one of the top goals, which implies the efficacy of corporate operations. This is since it is the constancy of activity that provides some advantages, such as increasing the level of organizational management and social responsibility, new market

opportunities and increasing investment attractiveness, innovation in production and management processes, minimizing risks and reducing costs, as well as creating favorable conditions for the development of future generations through rational distribution and use of resources.

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