

UDC 330.34:338.242

Proskurnina N.V.
PhD in Economics,Associate Professor of the Department of International Economics
and Management of Foreign Economic Activity of
Simon Kuznets Kharkiv National University of EconomicsUKRAINE ON THE WAY TO SUSTAINABLE DEVELOPMENT:
THE EXPERIENCE OF EUROPEAN COUNTRIESУКРАЇНА НА ШЛЯХУ ДО СТАЛОГО РОЗВИТКУ:
ДОСВІД ЄВРОПЕЙСЬКИХ КРАЇН

ANNOTATION

The experience of European countries had shown that at the present stage of development of the world economic system, unlimited economic growth was not a determining factor in the creation of an efficient economy. Thus it helped to reorient the European economy and the world in general to build a model based on the principles of sustainable development, with taking into account environmental, economic and social components. In this paper, it is carried out a classification of 19 surveyed countries, which have been identified as the countries with the largest size of the GDP among all countries in Europe over the past 25 years, each of which is characterized with the help of 12 socio-economic indicators used by the World Bank for the determination of the status of sustainable development for two periods. On the basis of cluster analysis there are highlighted groups of countries, trajectories and the reasons of the movement of the participants of clusters are described. Within the concept of sustainable development there were identified problem areas for Ukraine, the removal of which will contribute to the improvement of the socio-economic situation in our country and the formation of the possibilities for the creation of prerequisites for sustainable development of the Ukrainian economy.

Keywords: development, sustainable development, sustainable development of European countries

АНОТАЦІЯ

Досвід європейських країн показав, що на сучасному етапі розвитку світової економічної системи, необмежене економічне зростання не є визначальним фактором у створенні ефективної економіки. Таким чином це сприяло переорієнтації європейської економіки і світу в цілому на побудову моделі, заснованої на принципах сталого розвитку з урахуванням екологічних, економічних і соціальних компонент. У даній роботі виконана класифікація 19 досліджуваних країн, які були визначені як держави з найбільшим розміром ВВП серед усіх країн Європи за останні 25 років, кожна з яких охарактеризована за допомогою 12 соціально-економічних показників, які використовуються Світовим Банком для визначення стану сталого розвитку за два періоди. На основі кластерного аналізу визначені групи країн, описані траєкторії і причини переміщення їх учасників. В рамках концепції сталого розвитку для України були визначені проблемні області, усунення яких сприятиме поліпшенню соціально-економічної ситуації в нашій країні і формуванню можливостей створення передумов сталого розвитку української економіки.

Ключові слова: розвиток, сталий розвиток, сталий розвиток європейських країн.

АННОТАЦИЯ

Опыт европейских стран показывает, что на современном этапе развития мировой экономической системы, неограниченный экономический рост не является определяющим фактором в создании эффективной экономики. Таким образом это способствовало переориентации европейской экономики и мира в целом на построение модели, основанной на принципах устойчивого развития с учетом экологических, экономических и социальных компонент. В данной работе выполнена классификация 19 исследуемых стран, которые были опреде-

лены как государства с самым большим размером ВВП среди всех стран Европы за последние 25 лет, каждая из которых охарактеризована с помощью 12 социально-экономических показателей, используемых Всемирным Банком для определения состояния устойчивого развития за два периода. На основе кластерного анализа выделены группы стран, описаны траектории и причины перемещения их участников. В рамках концепции устойчивого развития для Украины были выделены проблемные области, устранение которых будет способствовать улучшению социально-экономической ситуации в нашей стране и формированию возможностей создания предпосылок устойчивого развития украинской экономики.

Ключевые слова: развитие, устойчивое развитие, устойчивое развитие европейских стран.

Formulation of the problem. Due to scientific and technical progress in the XX century the improvement of the economic situation in most countries of the world, including Europe, has become a steady trend that contributed to the creation of conditions for a significant increase in the standards of living. However, widespread devastation of natural resources and global environmental pollution have become the reverse side of economic development of these countries.

Nowadays, in the period of transformation of the socio-economic processes, our European partners actively solve the accumulated problems through the development and implementation of the programs of sustainable development at all levels of government.

Experience of the last 25 years of formation of the market model of the economy of Ukraine demonstrates that our country has not yet created effective conditions for stable economic growth, which is closely connected with the accumulation of capital and the intensification of the process of investing in all sectors of the economy, and further economic gap between the developed countries of the world and our country has become a tendency and, as a consequence, led to the decrease of the competitiveness of the native economy. Also low added value in basic industries does not allow accumulating of sufficient amount of capital and reallocating these savings to the development of new industries, which, in turn, does not allow rising of social and economic standards of living to the European level in order to ensure sustainable development.

By the beginning of the 21st century the concept «sustainable development» has a large number of definitions (according to various sources, more than 50-100), although for the first time this term was widely used only in 1987 in the Report of the World Commission on Environment and Development of UN (WCED) «Our common future» [1, p. 12].

Analysis of recent research and publications. The theoretical basis of sustainable development were studied in the works by scientists of F.S.U. and other foreign countries as: O. Alimov, I. Bystriakov, B. Danylyshyn, S. Illiashenko, N. Kyzym, L. Melnyk, V. Mishchenko, V. Ponomarenko, O. Raievniva, M. Hvesyk and others.

Highlighting the unsolved aspects of the problem. The lack of consensus in the definition and interpretation of the named concept is explained by the complexity of this phenomenon, which includes social, economic and environmental aspects of human development, and the discrepancy of views of representatives of different sectors of society – scientific, political, business on it. Most scholars define sustainable development as a process of change in which the exploitation of resources, investment flows, the orientation of technological development and institutional changes are consistent with each other and strengthen the current and future potential to meet human needs and aspirations [2, p. 25].

In many ways, it is a question of ensuring a non-decreasing over time quality of life and natural capital from generation to generation. It should be emphasized that sustainable development requires satisfaction of the most important for the life needs of all people and provision for all people possibilities for the satisfaction of their desiring a better life [3].

The purpose of this article is to analyze the experience of the developed countries of the European Union (EU) on the formation of stable trajectories of sustainable development, as well as to identify opportunities for the creation of prerequisites for sustainable development of the Ukrainian economy.

Presentation of the main material of research. System alignment and balance of the three main components (social, economic and environmental aspects of human development) – is a task of enormous complexity. In particular, the economic approach, which is oriented towards sustainable development, assumes the optimal usage of limited resources and the application of environmental, energy- and material-saving technologies for the creation of comprehensive income flow, which would provide at least the preservation (not decrease) of total capital (physical or natural human), the usage of which generates the total income. However, the transition to the information society leads to changes in the structure of total capital for the benefit of human capital, enlarging intangible flows of finance, information and intellectual property. The development

of a new «weightless» economy (knowledge economy) is stimulated not only by the shortage of natural resources, but also by the growth of the amount of information and knowledge, which have acquired a value of the requested goods [1, 2, 4].

From the point of view of ecology, sustainable development must ensure the integrity of the biological and physical natural systems and their viability as the global stability of the entire biosphere depends on it. Particular importance has the ability of such systems for self-renewal and adaption to various changes, instead of preservation in a certain static state or degradation and loss of biodiversity.

The social component is focused on human development, on the preservation of the stability of social and cultural systems, on the shortage of the number of conflicts in the society. A person should become not the object but the subject of development. One should participate in the formation of own livelihood, make and implement decisions, and monitor their implementation. Important meaning for the insurance of these conditions have an equitable distribution of wealth among the people (a decrease of the so-called GINI index), pluralism of views and tolerance in relations between them, preservation of cultural capital and its diversity, especially the heritage of non-dominant cultures.

System interrelation of social and environmental components leads to the need to maintain the same rights for present and future generations to use natural resources. The interaction of social and economic components requires achieving of fairness in the distribution of wealth between the people and the provision of targeted assistance to the poor segments of society. Finally, the relationship of environmental and economic components requires valuation of anthropogenic influence on the environment. Solution of these problems today is the main challenge for national governments, authoritative international organizations and all progressive people in the world [5, 6].

Today, aims of sustainable development, which were unanimously adopted by all 193 UN member states at the summit in September 2015, are designed to meet the needs of the population in both developed and developing countries and include 17 objectives in the context of the three pillars of sustainable development, as well as peace and justice issues: the widespread eradication of poverty in all its forms; the elimination of hunger, insurance of food security and better nutrition and the promotion of sustainable agriculture; ensuring a healthy lifestyle and promoting well-being for everyone at any age; ensuring inclusive and equitable quality education and promoting learning opportunities throughout life for all people; ensuring gender equality and the empowerment of women and girls; ensuring availability and efficient use of water and sanitation for all people; ensuring universal access to affordable, reliable, sustainable and modern energy services for

all people; promotion of sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all people; building of resilient infrastructure, promoting inclusive and sustainable industrialization and foster innovation; reducing of inequalities within and between countries; ensuring transparency, security, viability and environmental sustainability of cities and towns; ensuring transition to sustainable consumption and production; starting urgent actions to combat climate change and its effects; conservation and rational usage of the oceans, seas and marine resources for sustainable development; protection and restoration of terrestrial ecosystems and promoting their rational use, sustainable forest management, combating desertification, termination and retrieval of the process of land degradation and termination of biodiversity loss; contribution to building a peaceful and open society for the interests of sustainable development, ensuring access to justice for all people and the establishment of effective, accountable and transparent institutions at all levels; strengthening of the implementation and intensification of work in the framework of a global partnership for sustainable development mechanisms [7].

Thus, the most important thing is the subordination of the economic component to the other two: social and environmental.

The implementation of sustainable development goals is a spatially differentiated and cyclical process, which shows that the movement towards sustainability is faster in some countries than in others.

A special place in the implementation of strategies of sustainable development in the world community holds the EU. Here in the 1970s were worked out the main provisions of the Common European policy in the field of environmental protection, which generate impulses for qualitative changes in the economy, ecology and society. The Treaty of Amsterdam (1999), the Lisbon Treaty (2001), the Treaty on European Union (2007) contain the main policies of the stability of this macro-region. The European Union has positioned itself as a global leader of sustainable development policies, the creator of the scale for the other countries of the world. However, in the EU there is no consensus on sustainable development issues. Difficulties surrounding compromise agreements in the process of formulating sustainability goals among European countries demonstrate it. While some countries have adopted ambitious programs on the transformation of the energy sector, the economy and social sphere in the direction of sustainability, others made only small steps in this direction [7].

During years of independence, several attempts to create and approve at the legislative level the Concept of sustainable development of the country were undertaken in Ukraine. The proposed projects were reflected in the following official documents: the draft Law on the Con-

cept of Sustainable Development of Ukraine [6] (№ 3234 from 25.04.2001), heard at a meeting of the Verkhovna Rada of Ukraine of 07.03.2002 (not accepted); Draft Law of Ukraine on the Concept of Transition to Sustainable Development [9] (№ 3234-1 from 19.12.2001), heard at a meeting of the Verkhovna Rada of Ukraine of 07.03.2002 (not accepted); Decree of the Cabinet of Ministers of Ukraine «On Approval of the Comprehensive Program of implementation at national level of decisions taken at the World Summit on Sustainable Development for 2003-2015» of April 26, 2003 № 634 [10], Draft Resolution on the Concept of Ukraine's transition to sustainable development [11] (№ 5749 from 02.07.2004), the question was considered at the session of the Verkhovna Rada of Ukraine, the project was not supported (06.10.2005); «Project of the Conception of Ukraine's Transition to sustainable development», which was developed by the NAS of Ukraine and sent to the Cabinet of Ministers of Ukraine in 2012 [2].

Only at January 12, 2015 after the signing of the Association with the European Union, the Sustainable Development Strategy «Ukraine-2020» was approved by Decree of the President of Ukraine [12, 13]. It clearly defined for the first time structural changes in our country, taking into account all the European standards, namely the harmonization of economic development and requirements for ecological security of the European Union and the OECD, reduction of the anthropogenic load on the environment by decrease of the role of the main economic sectors with a high proportion of resource and energy-intensive obsolete industries, improvement of the work culture and consumption in order to divert the economy from man-made type of economic development.

Of course, the embodiment of the concept of sustainable development will not guarantee the rapid growth of people's well-being, but on the contrary, will require hard work and the consolidated efforts of politicians, managers, scientists and all progressive people of Ukraine. Another prerequisite for sustainable development is a political will of senior management of the state to go along the difficult but the only right way. And here it is worth paying attention to the experience of European countries.

In this paper, it is proposed to perform a classification of 19 surveyed countries, which have been identified as the countries with the largest size of the GDP among all countries in Europe over the past 25 years, each of which is characterized with the help of 12 socio-economic indicators used by the World Bank for the determination of the status of sustainable development (Real GDP growth, GDP per capita annual growth, Output GAP, Inflation, Unemployment, Savings, Investment, Current Account Balance, Health expenditure, Government expenditure on education, Agriculture, value added, Industry,

value added) for two key periods for the global economy (1 period – 1991 – the collapse of the USSR, 1998, 1999 and 2000 yrs. – approval of strategies for sustainable development by all countries of the European Union; 2 period – 2007, 2008, 2009 – the years of the global financial crisis, 2015 yrs.) [14-18].

Classification of these periods has allowed not only to identify classes of the surveyed countries, but also to analyze factors which influence changes in the composition of clusters. With the help of the method of hierarchical classification, according to the rule of full communication method and taking into account the Euclidean distance (as a measure of proximity), there were obtained results for each investigation period and the surveyed countries form five natural clusters (Tables 1 – 2) [19, 20].

According to the first period of investigation (1991, 1998, 1999 and 2000 yrs.) the first cluster included the following countries: Greece, Italy, Poland, Spain and the United Kingdom; the second – Germany, Austria and Portugal; the third – Belgium, Denmark, Finland, France, Netherlands, Norway, Sweden and Switzerland; the fourth – Ireland; the fifth – Russia and Turkey (Table 1).

According to the second period of investigation (2007, 2008, 2009, 2015 yrs.), the first cluster included the following countries: Germany, Austria, Belgium, Denmark, Finland, Netherlands, Norway, Sweden and Switzerland; the second – France, Italy, Poland, Portugal, Spain and the United Kingdom; the third – Ireland; the fourth – Greece; the fifth – Russia and Turkey (Table 2).

Two selected periods of investigation indicate the direction of changes in the cluster structure that visually can be seen at Picture 1.

As can be seen from Pic. 1 there are European countries that have moved from one cluster to another after 2000 year or remained at their place or formed a cluster from one country (Greece and Ireland).

The first and the second cluster were the largest by 2015, which is primarily due to their membership in the European Union, which, as mentioned earlier introduced the principles of sustainable development of the countries in the form of sustainable development programs at all levels (city, region and state as a whole) since the 70s years of the XX century.

Direction to sustainable development of the countries outside the European Union (Switzer-

Table 1

Average standardized values of indicators of clusters for the first period of investigation (1991, 1998, 1999 and 2000 yrs.)

Indicator,%	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Real GDP growth	-0,0942	0,100185	-0,09614	1,807085	-0,43379
GDP per capita, annual growth	0,116808	0,077333	-0,15192	1,318148	-0,4594
Output GAP	-0,46184	0,685478	-0,13795	1,54071	-0,09214
Inflation	-0,05481	-0,34477	-0,37036	-0,29963	2,2854
Unemployment	0,858515	-0,6993	-0,39928	0,096685	0,451433
Savings	-0,84473	-0,152	0,653669	0,314278	-0,432
Investment	-0,3798	-0,38623	0,31821	2,06421	-0,77611
Current Account Balance	-0,76494	-0,72	0,653087	-0,06775	0,413878
Health expenditure	-0,17507	0,755438	0,311347	-0,94981	-1,46598
Government expenditure on education	-0,63807	0,024628	0,727799	-0,37665	-1,16465
Agriculture, value added	0,028618	-0,45154	-0,41926	-0,10528	2,335428
Industry, value added	-0,38945	0,409343	-0,26298	0,830538	0,996275

Table 2

Average standardized values of indicators of clusters for the second period of investigation (2007, 2008, 2009, 2015 yrs.)

Indicator	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Real GDP	-0,23641	-0,08976	1,2846	0,171528	0,60508
GDP per capita, annual growth	-0,14368	0,254369	-0,2054	-0,06184	0,017073
Output GAP	-0,01437	-0,38052	0,30107	0,970308	0,570533
Inflation	-0,32687	-0,26783	-0,35368	-0,27346	2,587958
Unemployment	-0,57408	0,496632	0,090815	1,084725	0,505705
Savings	0,772179	-0,7167	-0,36368	-1,73317	-0,27629
Investment	0,09637	-0,32787	2,401833	-0,62821	-0,33688
Current Account Balance	0,765156	-0,74583	-0,65944	-1,4861	-0,13294
Health expenditure	0,512565	-0,1461	-0,14286	0,395768	-1,99471
Government expenditure on education	0,563497	-0,39784	0,24985	-1,96623	-0,48402
Agriculture, value added	-0,45745	-0,0919	-0,60749	0,635598	2,320163
Industry, value added	0,240474	-0,37515	0,298538	-1,67099	0,729548

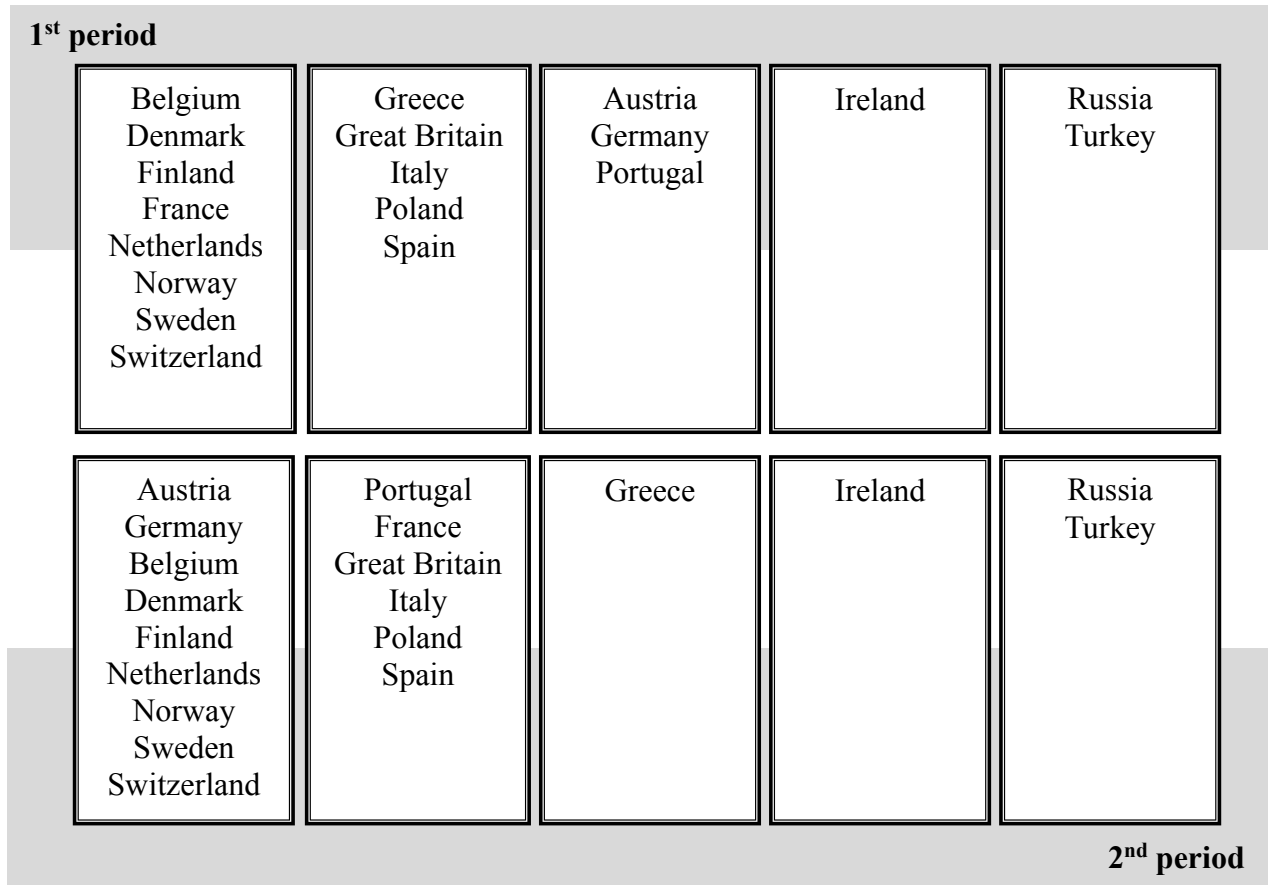
land and Norway), and their geopolitical position, namely the proximity to this integration association, the level of development of their economies and the role of regional organizations such as the Nordic Council, have become key components that allow Switzerland and Norway to be on par with the EU member states, and in some cases, such as budget spending on health care (about 11% and in the EU on average, 7-9%), even ahead of them.

As regards Ireland, the allocation of this state in a separate cluster is primarily connected with the fact that from the early 1990s until 2008 year, the term «Celtic Tiger» was used for the description of Ireland's economy. From 1996 to 2007 yrs., GDP of the country grew by an average of 7.1% per year, which exceeded not only the world indicators (3.2%), but also the indicators of the fast-growing Asian countries (4.3%) [15]. However, it did not help to avoid the consequences of the crisis of 2007-2008 yrs., after which the economy of the country entered recession and increased the foreign debt to 123% of GDP (on 01.01.2017) [15]. Nevertheless, this did not contribute to the reduction of the level of socio-economic indicators below the average European indicators.

Greece's membership in the European Union and similar to Ireland availability of external debt critical for their economic level (external debt to GDP ratio - 160.5%) contributed to the detach-

ment of this European state in a separate cluster, because economic problems, which emerged after the crisis of 2007-2008 yrs. have caused huge unemployment rate among working-age population (according to Eurostat at the beginning of 2017 it was about 26% of the working population), which is at odds with the strategy of sustainable development of the European Union [18]. 16 EU countries and the IMF agreed in 2010 on the allocation of financial assistance to Greece in the amount of 110 billion euro (80 billion from the EU and another 30 billion from the IMF), on condition that the country will introduce a rigid austerity program – reduction, freezing wages, raising the retirement age, increasing taxes, and in March 2012 was issued a second loan in the amount of 130 billion euro, which helped to avoid a default and keep the sustainable development indicators at the level close to the average European indicators.

Turkey and the Russian Federation formed one and the same cluster during the investigation period. This is explained by the fact that the availability of programs for sustainable development in these countries is rather formal and appropriate sustainable development indicators are lower than in the most European countries. Nevertheless, the desire of Turkey to become a part of the European Union contributed to the development and approval by the government of



Pic. 1. Changes in the clusters structure for two periods of investigation

Turkey a number of documents aimed at creating a sustainable economy, taking into account environmental and economic components in early 2000, and in 2012 in Ankara there was adopted a Sustainable Development Strategy until 2023, which is a landmark for Turkey (100th anniversary of the Turkish Republic), which formed the contours of structural changes in the economy so that the budget structure was distributed, taking into account the environmental and social dimension of the conception [17].

However, the adoption of a strategy is only one element of an integrated approach towards sustainable development, indicating the direction of the structural changes necessary for the orientation of the Ukrainian economy. Analysis of the strategies for sustainable development adopted by European countries shows that for the successful implementation of an integrated approach and the insurance of the development of the state in accordance with the concept of sustainable development the following conditions are required: analysis and constant monitoring of the current state of the economy and natural resources; determination of the strong and weak sides of the model of development of the state economy; identification of potential opportunities for growth and in line with this – sources of funding the upcoming changes; identification of priorities, tasks, goals, tools, plans, key performance indicators and mechanisms for the implementation of the set goals; start of the mechanisms of harmonization of native legislation in accordance with EU requirements and standards; distribution of areas of responsibility between all the structural bodies which are involved in the implementation of sustainable development strategies for achieving the set goals; constant coordination with the European partners, formation of the compliance reports about the made work towards goals and deadlines, identification of mistakes and ways to correct them; the work of state bodies on the creation of social programs for the population with the aim of involving the public in the implementation of the sustainable development strategy.

These components of an integrated approach have been partially or fully implemented by all European Union member states, which allowed to bring their socio-economic indicators to the same level.

Thus, the development of the economy of Ukraine is intended to be that very tool that is able to meet human needs and at the same time contribute to the accumulation of financial assets for a variety of priorities and objectives in the framework of the adopted strategy of sustainable development of our country.

Conclusions. The solution of the existing problems in our country must be considered in the context of a radical renewal of the national socio-economic system as a whole. The purpose of this renewal will be the accession of Ukraine to the European process of implementation of

sustainable development, formed on the basis of a qualitatively new dynamic socially-oriented economic system, the basis of which are primarily humanistic and ecologically oriented spatial reproduction processes.

Attempts of the development and implementation of the strategic pillars of sustainable development in Ukraine over the past decades show that in fact the majority of economic activities in our country do not provide the necessary system unity of social, environmental and industrial components. This situation demonstrates the need to focus on the system aspects to achieve the sustainable development of Ukraine. Considering namely the sustainable development as the basic strategy that is able to provide optimal use of available resources through the modernization of the economic activity in terms of EU integration, as well as emerging global challenges and the crisis threats, Ukraine will be able to provide a high quality of life for future generations.

REFERENCES:

1. Основи стійкого розвитку. Навчальний посібник / за ред. Л.Г. Мельника. – Суми : Університетська книга, 2005. – 654 с.
2. Наукові засади розробки стратегії сталого розвитку України : монографія / ІПРЕЕД НАН України, ІГ НАН України, ІППЕ НАН України. – Одеса : ІПРЕЕД НАН України, 2012. – 714 с.
3. Соціально-економічний розвиток України та її регіонів: проблеми науки та практики: монографія / за ред. В.С. Пономаренко, Н.А. Кизима, Е.В. Раєвнева; Харківський національний економічний університет; Наук.-дослід. центр індустрії. проблем розвитку НАН України; Вища школа бізнесу, Томський держ. ун-т. – М.: ІНЖЕК, 2010. – 340 с.
4. Національна парадигма сталого розвитку України / за заг. ред. академіка НАН України, д.т.н., проф., засл. діяча науки і техніки України Б. Є. Патона. – К.: Державна установа «Інститут економіки природокористування та сталого розвитку Національної академії наук України», 2012. – 72 с.
5. Power Laws in Economics: An Introduction / Xavier Gabaix // Journal of Economic Perspectives. – Vol. 30, № 1, Winter 2016. – PP. 185-206. – [Electronic resource]. – Access mode : <https://www.aeaweb.org/articles?id=10.1257/jep.30.1.185>.
6. Unemployment and Productivity in the Long Run: The Role of Macroeconomic Volatility / Pierpaolo Benigno, Luca Antonio Ricci, Paolo Surico // The Review of Economics and Statistics. – July 2015, Vol. 97, № 3, Pages 698-709. [Electronic resource]. – Access mode : http://www.mitpressjournals.org/doi/abs/10.1162/REST_a_00508#.VyxxVORsrVs.
7. The United Nations. [Electronic resource]. – Access mode : <http://www.un.org>.
8. Проект Закону про Концепцію сталого розвитку України (№ 3234 від 25.04.2001). [Електронний ресурс]. – Режим доступу: http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_2?skl=4&pf3516=3234.
9. Проект Закону про Концепцію переходу України до сталого розвитку (№ 3234-1 від 19.12.2001). [Електронний ресурс]. – Режим доступу: <http://w1.c1.rada.gov.ua/pls/>

- zweb2/webproc4_1?pf3511=11647.
10. Постанова Кабінету Міністрів України «Про затвердження Комплексної програми реалізації на національному рівні рішень, прийнятих на Всесвітньому саміті зі сталого розвитку, на 2003-2015 роки» від 26 квітня 2003 р. № 634. [Електронний ресурс]. – Режим доступу: <http://zakon2.rada.gov.ua/laws/show/634-2003-%D0%BF>.
 11. Проект Постанови про Концепцію переходу України до сталого розвитку (№ 5749 від 02.07.2004). [Електронний ресурс]. – Режим доступу: http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_2?id=&pf3516=5749&skl=5.
 12. Стратегія сталого розвитку «Україна – 2020». [Електронний ресурс]. – Режим доступу: <http://zakon5.rada.gov.ua/laws/show/5/2015#n10>.
 13. Угода про асоціацію між Україною, з однієї сторони, та Європейським Союзом, Європейським співтовариством з атомної енергії і їхніми державами-членами, з іншої сторони. [Електронний ресурс]. – Режим доступу: http://zakon5.rada.gov.ua/laws/show/984_011/page.
 14. World Bank Open Data. [Electronic resource]. – Access mode : <http://data.worldbank.org>.
 15. The Global Economy. Statistics. [Electronic resource]. – Access mode : <http://www.theglobaleconomy.com>.
 16. The Organisation for Economic Co-operation and Development. [Electronic resource]. – Access mode : <http://www.oecd.org>.
 17. Economy Watch. Statistics. [Electronic resource]. – Access mode : <http://www.economywatch.com/>
 18. European Commission. Eurostat. [Electronic resource]. – Access mode : <http://epp.eurostat.ec.europa.eu>
 19. Прикладная статистика: современные подходы и инструментальный анализа массовых явлений и процессов : монография / под ред. Е.В. Раевневой, Н.А. Кизима. – Х. : ФЛП Либуркина Л. М. ; ИД "ИНЖЭК", 2010. – 288 с.
 20. Статистика: Навчальний посібник / під ред. О.В. Раєвнєвої. – Х.: ВД «Інжек», 2011. – 504 с.