

The level of happiness as a determinant of sustainable development

Nataliia Sas

Poltava V.G. Korolenko National Pedagogical University, Ukraine
ORCID: 0000-0003-0308-6092, e-mail: sasnat2008@gmail.com

DOI: 10.14595/CP/02/017

Abstract: The happiness index is not taken into account among the components of the measurement system for quantitative and qualitative assessment of sustainable development. The article substantiates the possibility of using the happiness index as a determinant of sustainable development. The author suggests that achieving happiness is the ultimate goal of controlled social, economic and political systems, and the level of happiness can be used to measure the level of sustainable development. To compare the dynamics and outline the direction of movement, the subjective component of happiness index is decomposed as follows: stress, life values of individuals and life satisfaction. The author proposes to consider the needs of end users of sustainable development depending on the views on content of happiness. According to the author, the generalized classification of the archetypes of happiness is as follows: hedonism, eudaimonia, rat race, nihilism, subjective well-being. These typologies of happiness and their carriers do not exclude the necessity to meet the needs as devised by Maslow, however, they significantly expand the range of attention of public authorities and state policy regarding their variability. In terms of marketing, different archetypes of happiness and their representatives are different customer groups, meeting the needs of which allows to better solve the problem (achieving happiness) of user, enterprise, organization and society as a whole. The author believes that further research consists in studying the needs (primary and secondary, absolute and relative, higher and lower, positive and negative, general and special, urgent, private, individual and group, etc.) and developing an assortment matrix of services for each archetype; research of existing experience and development of practical ways of using available resources to ensure the opportunity for next generations to be happy; development of conscious attitude to the fact that natural resources are common to all living things on the planet and that all creatures great and small also require meeting their needs (in their diversity); creation of an appropriate scientific and practical platform for bringing together like-minded people – representatives of different areas of activity.

Key words: sustainable development, happiness index, needs of end users, views on content of happiness

JEL: Q01, Z18, R58

Introduction

Ideas of controlled evolution, design and management of the future are developed by scientists in various fields of science. This refers to human-driven changes in the desired direction. Thus, the conflicting interaction of humanity with nature and, as a possible consequence, the death of mankind, is today opposed to the idea of managed sustainable development on the basis of selected principles of its achievement. Despite the fact that sustainable development is studied quite deeply (for example, Popkov, 2007; Sadovenko, Sereda & Maslovskaya, 2009), the dynamics of sustainable development is determined by changing objective indicators. Population is seen as a social mass that must be mobilized to achieve the goals of sustainable development, while the subjective perception of the population (peoples, groups, individuals) is not taken into account.

On the other hand, the comparison of the dynamics of development of different countries is increasingly based on the so-called happiness index. Our previous research on the happiness index has concluded that the subjective component is also not taken into account when calculating the happiness index.

Thus, despite the fact that sustainable development and the happiness index are studied separately by different authors, the level of happiness as a determinant of the level of sustainable development has not become an independent object of research. The latter made the direction of scientific research particularly relevant.

Theoretical premises

Management of the future in the form of the concept of sustainable development, in particular, its environmental content, originates in the works of V. Vernadsky. He came to the fundamental conclusion that between all living and non-living parts of the globe there is a continuous material and energy exchange, which is expressed by natural changes and constant strive for stability and balance (Vernadsky, 1994). V. Vernadsky, A. Subetto and other researchers note the transition of the modern form of coexistence of the biosphere and anthroposphere in the noosphere, in which the human mind, in the cosmoplanetary dimension, becomes the "mind of the biosphere" focused on its progressive evolution (Vernadsky, 1994; Subetto, 2007). Nonlinear changes and processes of self-organization that occur in an unstable society are studied within the framework of social synergetics. According to the theory of intelligent systems, the concept of "intellectual management" (management of the macro-society and its subsystems: nano-, micro-, mili-societies) is introduced into scientific vocabulary (Subetto, 2007). In the context of these theoretical approaches, the concepts of sustainable development of society and national happiness become of particular interest.

The beginning of the global partnership for sustainable regional development was established at the UN Conference in Rio de Janeiro (1992). At this conference, on the basis of the report "Our Common Future" by the International Commission on Environment and Development ("Brundtland Commission"), there was adopted an important document for the world community - "Action program. The agenda for the XXI century" (General Assembly of the United Nations, 1987).

According to the Brundtland Commission's definition, "sustainable development means development that meets the needs of the present but does not jeopardize the ability of future generations to meet their own needs."

From the point of view of research, the following principles of achievement of sustainable development attract attention:

- The most important goals of environmental policy should include preserving peace, boosting economic growth, changing quality of the economic growth, tackling poverty, meeting people's urgent needs, tackling demographic challenges, preserving and strengthening the natural resource base, reorienting technology and taking into account risk factors, as well as comprehensive approach to environmental and economic issues in the decision-making process.
- A fair distribution of environmental costs and benefits of economic development between and within countries, as well as between present and future generations is one of the key factors in achieving sustainable development.

The term "Gross National Happiness" (GNH) was coined in 1972 by Sikko Mansholt, one of the founding fathers of the European Union and the fourth president of the European Commission. It is no coincidence that the anthem of the European Union is an instrumental part of the song "Ode to Joy": music by Ludwig van Beethoven (Symphony No. 9, first performed in Vienna in 1824), lyrics by Friedrich Schiller (written in 1785).

In 2005, the International Institute of Management first proposed the Gross National Wealth and Happiness Index (GNW / GNH). (International Institute of Management, n.d.). The GNW/GNH Index has been proposed to help identify and assess socio-economic development.

On July 18, 2008, the Bhutanese Constitution adopted the Bhutanese Government's Index of Gross National Happiness as the goal measurement of the government's activity (The Constitution of the Kingdom of Bhutan, n.d.). This term corresponds to the Buddhist idea that the ultimate goal of life is inner happiness. The components of gross national happiness are: economic self-sufficiency, pristine environment, preservation and promotion of Bhutan culture and good governance in the form of democracy.

Methodology

Based on the analysis of the identified sources, we took the statement about the control of human change in the desired direction as a methodological basis. Sustainability and sustainable development are manageable, and there are objective and subjective mechanisms, algorithms and technologies that allow to regulate these processes.

We have made a number of assumptions:

- the way to achieve happiness is to meet the needs of end users of sustainable development;
- a sense of happiness is the ultimate goal of managed socio-economic and political systems, and the level of happiness can be used to measure the level of sustainable development.

Since objective indicators (for example, the level of GDP per capita, etc.) are taken into account when determining the dynamics of changes in sustainable development and the happiness index, the subjective components of happiness have been chosen as the focus of the research. Taking into account the subjective components of happiness will make it possible to compare the dynamics of change in sustainable development and plan further development. We have proposed the following components of the subjective component of happiness: stress, life values of individuals, life satisfaction.

Because of the assumption that meeting the needs of end users of sustainable development is the ultimate goal of managed socio-economic and political systems, an attempt was made to identify above-mentioned needs based on views on happiness (hedonism, eudaimonia, rat race, nihilism, subjective well-being).

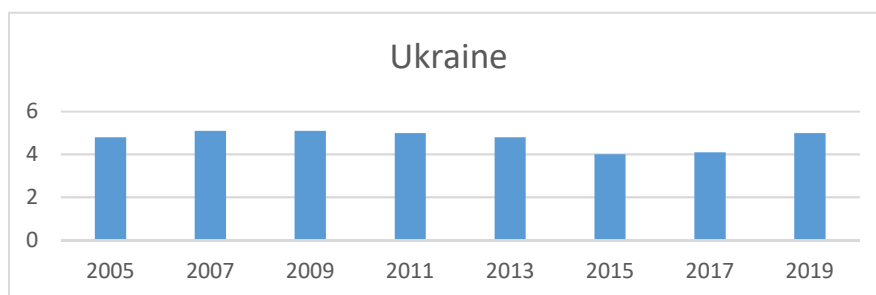
Results

In the context of the issue under consideration, in our view it was important to consider the components of the measurement system (indices and indicators) for an objective and subjective assessment of sustainable development. As you know, the main requirements for this system of measurements are its information, completeness and adequacy of the interconnected triad of components of sustainable development (economic, environmental and social). Despite the ambiguity and inconsistency of the systems of measurement of sustainable development available to the author, the analysis of the

systems revealed that among the system of Sustainable Development Commission of the United Nations (SDC UN) indicators, there are several distinguished indicators of institutional aspects of sustainable development (programming and policy planning, research, international legal instruments, information support, strengthening the role of key populations). The latter makes it possible to identify the direction of progressive development - the orientation of countries' policies to create economies on the model of "welfare for all" (Zgurovsky, 2006). The pan-European indicators of sustainable urban development (SUD) include "citizens' satisfaction with the city" (Mazurov & Pakina, 2003). Also, the use of the index of human well-being is gaining momentum (Matrosoy, 2000). However, the proposed calculation of sustainable development does not take into account the happiness index.

The World Happiness Report is compiled annually as part of a UN initiative (Helliwell et al., 2020). The happiness index is calculated on the basis of objective indicators. Jury members take into account indicators such as GDP per capita, social support, life expectancy, people's sincerity, perceptions of corruption, etc., without taking into account the feelings of happiness of the actual people. As a Ukrainian, the author was interested in the dynamics of the Happiness Index of Ukraine for 2006-2019 (Fig. 1).

Figure 1. Dynamics of the Happiness Index of Ukraine for 2006–2019



Source: own study, based on (Statistical Appendix for Chapter 2 of World Happiness Report 2020 John F. Helliwell, Haifang Huang, Shun Wang, and Max Norton February 29, 2020. P. 15)

The dynamics of happiness indices for 2006–2019 is indicative for every Ukrainian. The bar chart recorded a decrease in the happiness index in Ukraine in 2014–2016. Also low in previous years, the rate of happiness in Ukraine decreased with the beginning of Russian aggression, the annexation of Crimea, hostilities in the Donbass. It is logical to assume an increase in stress for most Ukrainians. Thus, we can hypothetically record a direct

relationship between stress and happiness: the higher the stress, the less happiness people feel.

However, such calculations are proposed from the point of view of objectivists, top managers, management geniuses, few of whom know how to measure the sustainable development of all (the whole world, all people). This corresponds to the view that discoveries are made by individuals - geniuses, and the rest are the ones who follow the geniuses. This view is not ideal, however. As history shows, the geniuses can be both positive and negative.

As reporters, we present the results of a study of the happiness index, which is conducted by the Association of Independent Research Agencies Gallup International. In Ukraine, the survey was conducted in early December 2020 by the Kyiv International Institute of Sociology [Cheromuhina, 2021]. In this study, the happiness index is calculated as the percentage of those who consider themselves happy, minus the percentage of those who consider themselves unhappy, i.e., calculated solely based on the subjective feelings of respondents. The answers of the surveyed Ukrainians showed a sharp decline in the subjective feeling of happiness compared to the previous year: in 2019 - 33%, in 2020 - 14%. Obviously, the 2020 pandemic was another stressor that was evident. The limitation of the applied method is that its results can be considered relevant only for the situation "here and now." The limitation of the applied method is that its results can be considered relevant only for the situation "here and now," because the internal "local feeling of happiness" can be influenced by situational, unconscious factors. In addition, being as subjective as possible, this system of measuring happiness captures the state but does not specify the direction of development.

We have proposed the following aspects of the subjective component of happiness, which can overcome the limitations of the previous ones: happiness will be a component of the dimension of sustainable development and will be constructive (meaning it will allow you to compare the dynamics and determine the direction of further development). In our opinion, the subjective component of the happiness index can be decomposed as follows: stress, life values of individuals, life satisfaction (Samarska & Sas, 2020). According to G. Selye, stress is a non-specific response of the body to any requirements imposed on it (Selye, 1977).

During stressful periods, along with elements of adaptation to strong stimuli, there are elements of tension and even damage. It is the universality of the "triad of changes" that

accompanies stress: the reduction of the thymus, enlargement of the adrenal cortex and the appearance of hemorrhages and even ulcers in the gastrointestinal mucosa, allowed G. Selye to hypothesize a general adaptation syndrome (GAS), which was later called "stress."

As has been mentioned, stress is accompanied by a decrease in the thymus, enlargement of the adrenal cortex and the appearance of hemorrhages and even ulcers in the mucous membrane of the gastrointestinal tract. That is, an increase in the morbidity of the population of any country under the influence of these functional changes in the human body may indicate a social, economic, political tension in society, and thus - a decrease in the subjective feeling of happiness. Life and freedom are recognized as the most important and most significant values. Therefore, a comparison of indicators of duration and state of human rights and freedoms will indicate the level of happiness in a country. Awareness that every ordinary citizen of any country is the end user of living standards in the country leads to the understanding that the degree of his or her satisfaction can also be used to assess social progress (sustainable development) in the country.

It makes sense to anticipate the ability to control the level of subjective happiness. Such opportunities are opened on the basis of achievements in the field of neurobiology.

The famous experiment conducted by American behavioral psychologists James Olds and Peter Milner in 1954 is based on a study of the sense of pleasure and neural correlates associated with its receipt. As a result of the experiment, an important part of the brain called the "pleasure center" was discovered (Olds & Milner, 1954). The experiment involved rats with electrodes implanted in the limbic system sitting in a special box. Even when the animal was able to self-regulate the feeling of pleasure by pressing the lever, the effect persisted. Seeking to experience pleasure again and again, the rat pressed the lever, ignoring the actions necessary for survival (for example, denying himself food) until it died of exhaustion.

The experiments with the implantation of electrodes in the human brain in the area of the "pleasure center" were considered unethical. However, the study of "pleasure centers" led to the discovery of a substance released in the brain in the process of pleasure - dopamine (and the ability to enhance its secretion, for example, through exercise).

The study of Japanese scientists opens the possibility to objectively measure the feeling of happiness using magnetic resonance imaging (Sato, Kochiyama, Uono, Sawada, Kubota, Yoshimura & Toichi, 2016). In particular, statistical analysis revealed a correlation between the level of happiness and the amount of gray matter in one area of the right

hemisphere - the inner part of the parietal cortex (precuneus). It was found that the precuneus has connections with other brain structures and is involved in integrating information about current inner feelings, memory of the past and plans for the future. The new discovery is likely to enable the development of methods that develop people's sense of happiness through meditation. According to some studies, meditation increases the amount of gray matter in the precuneus.

It is worth noting that the principle of sustainable, balanced development is identified as a key principle of all EU policies (Treaty of Amsterdam amending the Treaty on European Union, the Treaties establishing the European Communities and certain related acts, 1997). According to the Amsterdam Treaty, any EU policy should be designed to take into account economic, social and environmental aspects, and achieving goals in one area of policy should not hinder progress in another. From the point of view of the concept of happiness, the achievement of sustainable development is nothing but the work of public authorities focused on the end users of public policies in their economic, social and environmental aspects.

Recognition of happiness as a determinant of sustainable development also has an ethical meaning, as it is a shift in the value orientations of many people. Like any social ideal, the recognition of happiness as a determinant of sustainable development is a guide to the creation of a society whose policy (economic, social, environmental aspects) is the happiness of the population of each country and the planet through human needs (economic, social, environmental) (Kotler, 2006).

Let's consider what is a need in terms of typology of happiness. The generalized classification of archetypes of happiness, in our opinion, is as follows: hedonism, eudaimonia, rat race, nihilism, subjective well-being (Sas & Samarska, 2020).

Hedonism (from Greek "pleasure") enjoys simple pleasures: fallen leaves in the park, moments of intimacy with friends or hugs with a dog (Kozlowski, 2017). The creator of the theoretical foundations of the hedonistic attitude to life and happiness is usually called the ancient Greek philosopher Epicurus. It was hedonism, based not so much on living in complete indulgence of whims, but on moderate pleasures, self-control and respect for others. Humans are creatures that have a significant need for pleasure, enjoyment of life; the absence of such pleasure narrows their spiritual horizons.

Eudeimonia identifies happiness with the development of personal abilities: a "happy" life consists of realization of a person's potential (moral, intellectual, social, etc.) and their development. The belief in happiness-eudaimony underlies the ethical concept of Aristotle, according to which the state of happiness implies the desire of the individual to meet their own vocation ("Damon") or "true self." It occurs through the development of all possibilities inherent not only in typical personality characteristics but also in specific personality traits represented in any human individual (Kargina, 2019).

Rat race means the pursuit of financial well-being, career building, success, victory in competition, etc (similar to the image of a laboratory rat running through a maze and receiving pieces of cheese as a reward). Those for whom this way of living is ideal and acceptable, feel quite happy.

Nihilism (from the Latin "nihil" - nothing) means denial of established social norms, values, authorities, ideals. Kropotkin P. is credited with defining nihilism as a symbol of the struggle against all forms of tyranny, hypocrisy, and artificiality, as well as for personal freedom. In different years and in different countries, atheists, youth subcultures of punks and hippies, etc., were considered nihilists. Jean Baudrillard and others characterized postmodernism as a nihilistic era or way of thinking (Baudrillard, 2000). Values in postmodernism are freedom, diversity, tolerance and a view of a society where "all are authors and actors." Nihilists, in our opinion, can be identified as individuals who are able to live in a state of alternativeness, to be in a situation "between" (reassessment of values, reorientation of goals, etc.). In the context of this problem, not only in the situation of renewal and self-manifestation, but also the renewal of the surrounding society.

The basis for understanding the content of subjective well-being is contained in the psychological theory of subjective well-being by E. Diener (Diener & Ryan, 2009), and M. Seligman's concept of authentic happiness (Seligman, 2006). Personal, special cognitive, and emotional-evaluative interpretations of the situation determine the direction of activity of such a person in the form of behavioral strategies. Such a person is said to be "on their wave." The assessment of the external circumstances of such a person's life may not contradict the generally accepted norms, but may not depend on them. To a certain extent, subjective well-being is the essence of Eastern practices (according to the Japanese budo expert M. Saotome "... to know oneself means to know the mission that Heaven has assigned to you") (Saotome, 2002).

Summary, recommendations

These typologies of happiness and their carriers do not exclude the necessity to meet the needs according to Maslow. However, they significantly expand the range of attention of public authorities and state policy regarding their variability. In terms of typology of happiness, implementing an electrode or practicing meditation is not enough. For example, comfortable and beautiful housing, clothing, food and other are important for hedonists; this should provoke the development of appropriate industries and their stimulation (not only safe, but also beautiful and aesthetically pleasing). For eudemonists, it is important to have conditions for development of various abilities – moral, intellectual, social, etc. The task of public authorities is to create appropriate opportunities, conditions and access to them. The participants of “rat race” are able to maintain a fast pace in achieving goals, but obviously require high service (food, healthcare and education facilities, technical services, etc.) (not only safely, but also quickly). We assume that the developed service will attract the attention of representatives of other behavioral typologies of happiness. All participants of the society are, at the same time, consumers and producers of goods and services. Thus, the main task of the state is to support and encourage constructive and limit destructive activities (in terms of compliance with laws, environmental feasibility and sustainable development). We assume that in any country and in any society, there are representatives of different archetypes of happiness; we also assume that typology of archetypes will develop over time.

In terms of marketing, different archetypes of happiness and their representatives can be simply considered as different customer groups, meeting the needs of which allows for better solution of the problem (achieving happiness) of a user, enterprise, organization and society as a whole. We believe that further research consists of studying the needs (primary and secondary, absolute and relative, higher and lower, positive and negative, general and special, urgent, private, individual and group, etc.) and developing an assortment matrix of services for each archetype; researching existing experience and development of practical ways of using available resources to ensure the opportunity for next generations to be happy; development of conscious attitude to the fact that natural resources are common to all living things on the planet and that all creatures, big and small, similarly to humans require meeting their needs (in their diversity); creating an appropriate scientific and practical platform for bringing together like-minded people – representatives of different areas of activity.

References

- Baudrillard, J. (2000). Symbolic exchange and death. Moscow: Dobrosvet.
- Cheromuhina, O. (2021, January 14). Happiness index: in the world and in Ukraine. Kyiv International Institute of Sociology.
- Diener, E., & Ryan, K. (2009). Subjective well-being: A general overview. *South African Journal of Psychology*, 39.
- General Assembly of the United Nations. (1987, August). Development and International Economic Cooperation: Environmental Issues. Report of the World Commission on Environment and Development "Our Common Future."
- Helliwell, J., Huang, H., Wang, S., & Norton, M. (2020). Statistical Appendix for Chapter 2 of World Happiness Report. Retrieved February 29, 2020, from https://happiness-report.s3.amazonaws.com/2020/WHR20_Ch2_Statistical_Appendix.pdf
- International Institute of Management. (n.d.). Gross National Wellbeing and Happiness Index. GNW / GNH Index. Retrieved February 2, 2020, from <https://www.iim.education/advisors/medjones/gross-national-wellbeing-happiness-gnh-gnw-index.htm>
- Kargina, N. (2019). Hedonistic and eudemonistic understanding of psychological well-being. *Theory and practice of modern psychology*, 4(1), 27-31.
- Kotler, F. (2006). Marketing management. Saint-Petersburg: Piter.
- Kozlowski, D. (2017, September 3). What is hedonism and how does it affect your health? Retrieved from <https://theconversation.com/what-is-hedonism-and-how-does-it-affect-your-health-78040>
- Matrosov, V. (2000). New paradigm of Russia's development. Moscow: Publishing House "Academia"; Irkutsk: RIZ GP "Oblinformpechat."
- Mazurov, U., & Pakina, A. (2003). Economics and environmental management. Moscow: Moscow State University.
- Olds, J., & Milner P. (1954). Positive reinforcement produced by electrical stimulation of septal area and other regions of rat brain. *Journal of Comparative and Physiological Psychology*, 47(6), 419-427.
- Popkov, V. (2007). Sustainable economic development in the context of globalization and the knowledge economy: conceptual foundations of management theory and practice: scientific edition. Moscow: ZAO: Publishing House "Economics."
- Sadovenko, A., Sereda, V., & Maslovska, L. (2009). Sustainable development of society. Textbook. Kyiv: UNDP Local Development Program, Academy of Municipal Administration.
- Sato, W., Kochiyama, T., Uono, S., Sawada, R., Kubota, Y., Yoshimura, S., & Toichi, M. (2016). Structural neural substrates of reading the mind in the eyes. *Frontiers in Human Neuroscience*, 10 (151).
- Saotome, M. (2002). Aikido and harmony in nature. Kyiv: Sofia, Moscow: Publishing House "Gelios."
- Sas, N., & Samarska, L. (2020). Characteristics of the content of the archetypes of happiness. *Socio-psychological problems of modern society and man: solutions: collection of scientific articles*. Vitebsk: Vitebsk State University named after P.M. Masherov.
- Selye, G. (1977). The stress of life. Retrieved from <http://adaptometry.narod.ru/StressZhizni.htm>
- Seligman, M. (2006). New positive psychology: a scientific look at happiness and the meaning of life. Moscow: Sofia.
- Subetto, A. (2007). Systemology of education and pedagogy. Compositions. Noospherism. Kostroma: Kostroma State University named after N.A.Nekrasov.
- The Constitution of the Kingdom of Bhutan. (n.d.). Retrieved February 1, 2021, from <https://www.nationalcouncil.bt/assets/uploads/files/Constitution%20of%20Bhutan%20English.pdf>

**Proceedings of the 2021 VIII International Scientific Conference Determinants
of Regional Development, No 2, Pila 21 - 22 October 2021**

Treaty of Amsterdam amending the Treaty on European Union, the Treaties establishing the European Communities and certain related acts. (1997, October 2). Retrieved February 15, 2020, from https://www.cvce.eu/obj/treaty_%20of_amsterdam_2_october%20_1997-en-578ebb8e-d641-4650-b1e3-3b3a795e01c9.html

Vernadsky, V. (1994). Living matter and biosphere. Moscow: Nauka.

Zgurovsky, M. (2006, May 26). Ukraine in the global dimensions of sustainable development. Newspaper Mirror of the week, 19.