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The Impact of Global Sustainable Development on Subjective Well-being

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Abstract. Based on the current state of global subjective well-being and global sustainable development, this paper studies the impact of sustainable development, proposed in 1987 and pursued globally, on the subjective well-being of people worldwide from the post-World War II and Industrial Revolution period to the 21st century. This paper primarily employs methods of literature review consolidation and tabular data analysis to summarize the research findings produced by existing researchers. The following studies were conducted: summarizing and synthesizing the definitions and concepts of well-being and subjective well-being, and analyzing and summarizing the influencing factors of subjective well-being; summarizing and synthesizing the definition and concept of sustainable development, and classifying the 17 Sustainable Development Goals designated by the United Nations; and subsequently, studying the impact of economic sustainable development, environmental sustainable development, and social sustainable development on global subjective well-being. Thereby, prospects for future sustainable development and predictions of well-being trends are proposed, concluding that, thanks to global economic, environmental, and social sustainable development, global multidimensional subjective well-being is generally on an upward trend. We should further strive towards the common goal of global sustainable development to continuously enhance the subjective well-being of people worldwide. Finally, directions for future development aimed at enhancing people's subjective well-being and advocating for further sustainable development are suggested.

Keywords: Sustainable Development, Subjective Well-being, Global Development, Well-being, Development Economics

1. Introduction

Since the Age of Discovery, the world has been connected as a whole, and global development has accelerated rapidly. The beginning of the Industrial Revolution pushed economic development to another new peak. Machinery greatly improved production efficiency, liberated labor, and consequently enhanced the subjective well-being of global residents. This study aims to investigate the impact of sustainable development, pursued globally from the post-World War II and Industrial Revolution period to the 21st century, on the subjective well-being of people worldwide. This paper primarily studies the impact of global sustainable development in the three major areas of economy, environment, and society on global subjective well-being, and then proposes prospects for future

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sustainable development and predictions of well-being trends. The significance of the research lies in analyzing the current state of development under existing circumstances, thereby deriving goals and methods for further development.

2. Current state of global subjective well-being

2.1. Definition of subjective well-being

Traditional well-being primarily has two philosophical foundations: first, hedonism, which holds that happiness refers to pleasure and satisfaction, later evolving into the subjective well-being approach; second, eudaemonism, which emphasizes that happiness refers to individual self-realization and social realization, later developing into eudaemonic well-being, including psychological well-being and social well-being. Subjective well-being refers to people's comprehensive evaluation of their quality of life, including satisfaction with various life domains as well as experiences of positive or negative emotions and feelings [1]. Integrating these two concepts leads to the final conclusion: unlike objective gauges—observable health or material conditions—subjective well-being hinges on individuals' own judgments of their lives, and mounting evidence shows these self-assessments, particularly global life evaluations, mirror deeper well-being [2].

2.2. Influencing factors of subjective well-being

The influencing factors of subjective well-being are diverse, affected not only by economic conditions and various objective terms but also by the interaction of various subjective factors such as satisfaction with life, affective quality of life, perceived stress, etc. [1]. This paper primarily studies the impact of economic, environmental, and social sustainable development among these many influencing factors on people's subjective well-being.

3. Current state of global sustainable development

3.1. Definition of sustainable development

When considering the current state of global sustainable development, the foremost task is to understand what sustainable development is. As early as 1980, the International Union for Conservation of Nature (IUCN), the United Nations Environment Programme (UNEP), and the World Wildlife Fund (WWF) published the "World Conservation Strategy," which first proposed the term and concept of "sustainable development." This concept was widely recognized and applied worldwide, but the definition of "sustainable development" remained relatively vague. It was not until 1987 that the UN World Commission on Environment and Development (WCED) provided a more authoritative definition for the then very vague concept, namely, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [3]. This definition was ultimately recognized by researchers.

3.2. Sustainable Development Goals Index (SDG index)

In order to compare the performance of nations across the SDGs, a composite system known as the SDG Index (SDGI) was created in 2015. To track each goal's progress, a number of indicators are chosen, placing them between the worst-case scenario (zero) and the desired result (100). The mean of a nation's entire SDG scores, when each objective is given an equal weight, is known as the

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overall SDGI score. All nations are given similar ratings and rankings using the same basket of variables.

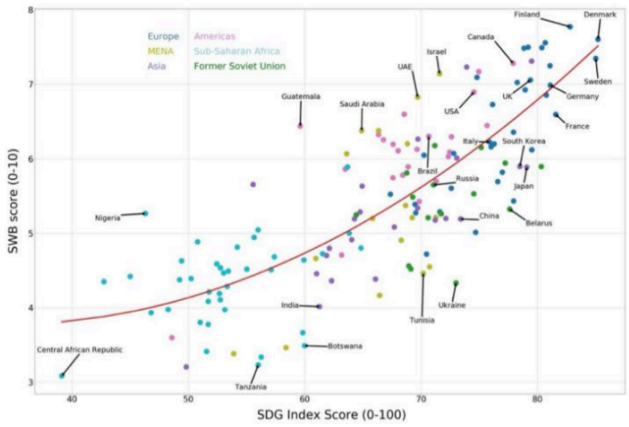


Figure 1. Urban pollution and urban resident well-being chart

Figure 1 shows the sustainable development and subjective well-being, a scatterplot for the overall SDGI score (mean of total SDG score, where all goals are weighted equally) and SWB score for all countries in the data set. This scatterplot was produced using matplotlib package (version 3.2.1) in python [4].

3.3. UN's 17 sustainable development goals and dimensions

To further advance sustainable development, the United Nations has set 17 Sustainable Development Goals (SDGs). This paper will list these 17 SDGs and categorize them into three distinct yet coexisting dimensions. First, the UN's 17 Sustainable Development Goals are: (1) No Poverty; (2) Zero Hunger; (3) Good Health and Well-being; (4) Quality Education; (5) Gender Equality; (6) Clean Water and Sanitation; (7) Affordable and Clean Energy; (8) Decent Work and Economic Growth; (9) Industry, Innovation, and Infrastructure; (10) Reduced Inequalities; (11) Sustainable Cities and Communities; (12) Responsible Consumption and Production; (13) Climate Action; (14) Life Below Water; (15) Life on Land; (16) Peace, Justice, and Strong Institutions; and (17) Partnerships for the Goals.

This paper categorizes the above 17 goals into three dimensions: economic sustainable development, environmentally sustainable development, and social sustainable development. Those reflecting the economic sustainable development dimension are 8, 9, 12. Those reflecting the environmentally sustainable development dimension are 6, 7, 13, 14, 15, 17. Those reflecting the social sustainable development dimension are 1, 3, 4, 5, 10, 11, 16.

4. The impact of sustainable development on subjective well-being

4.1. Impact of economic sustainable development on subjective well-being

4.1.1. Impact of economic growth on subjective well-being

First, according to common sense, economic growth brings people more wealth, improves living standards, and consequently enhances people's subjective well-being. Indeed, economic growth can be a driver of increased well-being; if the economy contracts, well-being may also decline [5]. However, after years of research and verification by researchers, common sense does not seem

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entirely correct. Can economic growth bring about an improvement in national happiness? (In his 1974 empirical study, Easterlin proposed and demonstrated the famous "Easterlin Paradox" [6]. According to World Values Survey data, although China experienced rapid economic growth from 1990 to 2000, the average level of happiness among Chinese people decreased by 0.9 [7]. Therefore, it can be judged that the common-sense belief that economic growth has a positive impact on subjective well-being is not entirely correct; the relationship might more likely be that economic growth has a negative effect on subjective well-being.

4.1.2. The relationship between changes in economic development mode and subjective well-being

How can the economy promote the enhancement of people's subjective well-being? First, the happiness index reflects the quality of economic development. This indicates a relationship between economic development and subjective well-being. Stable and rapid economic development is conducive to improving the quality and efficiency of economic growth, increasing social wealth steadily, continuously improving people's living standards, and also enhancing people's confidence in economic prospects [8]. Indeed, when economic development is too rapid, issues like widening wealth inequality in a short period may arise, creating psychological burdens and thus reducing subjective well-being. Simultaneously, a series of problems caused by excessively slow economic development, such as reduced employment, may increase life pressure, potentially leading to a loss of confidence in life and a decrease in subjective well-being. Therefore, it is concluded that without sustained and stable economic development, there will be no improvement in people's quality of life and enhancement of well-being and satisfaction. At the same time, maintaining stable and rapid economic development is crucial for raising the happiness index [8].

4.2. Impact of environmentally sustainable development on subjective well-being

4.2.1. Direct impact of environmental improvement on subjective well-being

First, environmental improvement can have a direct impact on people's subjective well-being. Environmental improvement means the enhancement of people's living environment, such as increased greening in urban areas making streets more aesthetically pleasing or reduced air pollution improving air quality. On one hand, environmental improvement helps alleviate residents' concerns about environmental pollution issues, increases their confidence in environmental quality, and also strengthens their confidence in the government's responsibility for environmental governance. On the other hand, improving environmental conditions and alleviating environmental pollution problems enhance residents' living environment and quality of life, thus boosting their subjective well-being. Environmental improvement can have a direct impact on residents' subjective well-being [9].

4.2.2. Indirect impact of environmental improvement on subjective well-being

Environmental improvement also indirectly affects subjective well-being. Environmental improvement indirectly influences residents' well-being by promoting social and technological progress. Technological innovation induced by environmental improvement is beneficial for enhancing enterprises' production efficiency and regional green technology innovation efficiency, which in turn promotes economic growth. Economic growth is an important source for enhancing subjective well-being. Social progress driven by technological innovation brings great convenience

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to people's lives, and residents' life satisfaction rises accordingly. According to researchers' investigations and summaries, three environmental effects are the main components of the indirect impact of environmental improvement on subjective well-being. First, the health effect: Environmental improvement affects subjective well-being by influencing residents' health status. Physical health is an important factor affecting subjective well-being. Poor health often makes people feel down, leading to a loss of confidence in life and lower happiness indices. Government strengthening of environmental governance helps improve societal environmental quality, and the improvement of residents' living environment reduces their probability of falling ill. Ultimately, residents experience increased well-being due to improved health status. Environmental improvement's impact on subjective well-being can also function through growth effects and green effects. Growth effect: From the perspective of the sustainability of income growth, growth achieved at the expense of ecological environment destruction can only be short-term. In the long run, sustainable income growth must be based on harmonious development between humans and nature. Under green development, environmental improvement enhances residents' expectations of sustainable income growth and their actual acquisition, thereby strengthening their subjective well-being. Green effect: A good ecological environment can powerfully... clean air can make people feel happy. When people are in a beautiful natural environment compared to an ordinary urban setting, their sense of well-being is stronger [9].

4.3. Impact of social sustainable development on subjective well-being

4.3.1. Impact of educational sustainable development on subjective well-being

As one of the important drivers of social change, the sustainable development of education holds significant meaning for enhancing people's subjective well-being. Beyond its direct impact on inner worlds, education also enhances external objective conditions, indirectly shaping subjective well-being [10]. Simultaneously, higher educational attainment can increase individual income rewards, influencing their well-being [11]. Education also significantly improves residents' health levels; people with higher education pay more attention to their physical condition, using good physical health to enhance their life well-being [10].

4.3.2. Impact of social rule of law on subjective well-being

While economic construction improves the material living standards of citizens, it is also essential to safeguard citizens' rights and interests through legal norms; this is the inherent meaning of national happiness [12]. Indeed, further legalization of society helps promote social fairness and justice, protect people's due rights and interests, further ensure their lives, and thus enhance people's subjective well-being. Focusing on optimizing the legal environment helps improve people's subjective sense of satisfaction; effectively maintaining fairness and justice helps enhance people's subjective sense of gain; fully building a safe society helps enhance people's subjective sense of security.

5. Conclusion

After the above analysis, this paper ultimately concludes that to enhance people's happiness index and maintain sustainable development, efforts should focus on the following aspects: (1) Optimizing the economic structure; (2) Coordinating balanced development; (3) Strengthening environmental governance; (4) Emphasizing social equity and sharing the fruits of development.

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Sustainable development is a common global development goal, and people's subjective well-being is stabilizing and showing an upward trend. Under this background, economic sustainable development serves as the primary driver for using sustainable development to enhance people's subjective well-being. Improvements in economic development significantly leads to increases in people's subjective well-being. When economic sustainable development negatively impacts subjective well-being, the methods of economic sustainable development should be actively changed. Meanwhile, environmentally sustainable development can directly and indirectly affect people's subjective well-being simultaneously, becoming the second major factor influencing subjective well-being. Similar to the first two, social sustainable development also plays a key role in influencing people's subjective well-being. Educational and rule of law conditions, as two core aspects of development within social sustainable development, lay the foundation for enhancing people's subjective well-being. Based on the above three summaries, to further realize the positive impact of global sustainable development on people's subjective well-being in the future, emphasis should be placed on achieving economic, environmental, and social sustainable development.

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