

Conceptual framework of human well-being and its relation to Economic Growth and Globalization

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(1) Conceptual framework of human well-being

In Japan, academics and think tanks have come up with various interpretations and definitions of human well-being, and research on so-called happiness studies is also becoming widespread. A characteristic feature of this approach is that it is often linked to business administration and focuses on what indicators corporate managers should use to measure employee well-being and reflect it in KPIs.

Human well-being is overwhelmingly derived from ecosystem services. Millennium Ecosystem Assessment (MA) provides a deep understanding of this. MA is a comprehensive international research project on the assessment of ecosystem services launched in 2000 by the United Nations Environment Program (UNEP) and the World Bank. MA aims to clarify the relationship between ecosystem services and human well-being by comprehensively assessing the provision and loss of ecosystem services¹, the impact of human activities, etc., and using the results for policy development and other purposes including decision making.

In MA, well-being consists of the following five components.

1. Safety: Access to resources. Protection from risks such as natural disasters.
2. Basic material needs: sufficient food, the material requirements necessary for humans to live.
3. Health: Being physically and mentally healthy. Having access to clean air and water.
4. Social support: Gaining a sense of security and self-actualization through support and connections from family, friends, local communities, social networks, etc.
5. Self-actualization: Demonstrate one's abilities to the fullest and pursue self-actualization.

These components are related to the various benefits provided by ecosystem services, and MA uses such constructs to assess the overall and comprehensive impact of ecosystem services on well-being. Figure 1 will lead to the clear understanding of the relationship between ecosystem services and human well-being.

¹ The definition of ecosystem services is “The benefits (and occasionally disbenefits or losses) that people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as flood and disease control; and cultural services such as recreation, ethical and spiritual, educational and sense of place.”

(Figure 1)



(Reference) <https://www.millenniumassessment.org/documents/document.356.aspx.pdf>

On the other hand, in the Well-being Study in Japan, terms such as Positive Emotion and Meaning are listed as constituent elements, and in the survey conducted by the Cabinet Office regarding the degree of well-being (Japan's Well-being Trends, 2023 (July)), wages and owned assets are cited as the main components of satisfaction. Looking back the definition of well-being, "A perspective on a good life that comprises access to basic materials for a good life, health and physical well-being, good social relations, security, peace of mind, spiritual experience, and freedom of choice." I suppose that by showing the standard of basic materials, a more accurate globally common indicator can be created.

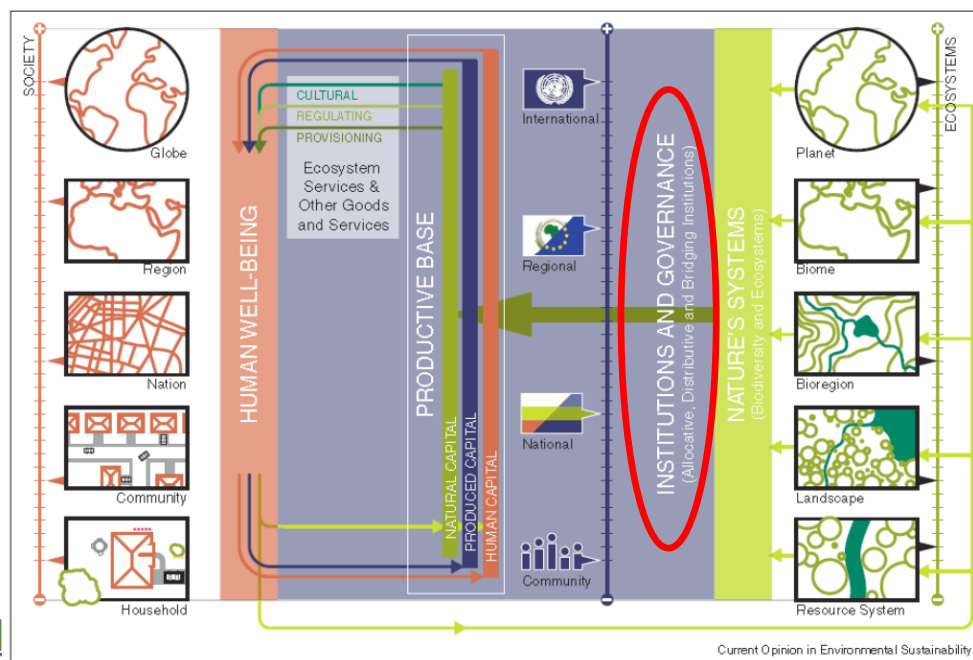
The National Biodiversity Strategies and Action Plans (NBSAPS)² also reflects the MA evaluation system and recognizes that people's health and well-being are closely linked to biodiversity. Specifically, conserving biodiversity is expected to contribute to people's well-being by providing healthy food, clean water, protection from natural disasters, and mental and physical relaxation. In addition, conserving biodiversity can have economic benefits such as tourism and nature experiences, which can have a significant impact on people's lives.

² <https://www.cbd.int/nbsap/>

An approach called New Commons is proposed to resolve the mismatch between ecosystem services and people's well-being³. New Commons aims to balance the provision of ecosystem services with people's well-being by sharing the resources and rules necessary for people to use ecosystem services. Specifically, this includes the conservation and restoration of the natural environment that provides ecosystem services, the appropriate management of shared social resources, and the development of policies and systems to support people's well-being. New Commons is attracting attention as a new approach to promoting cooperation among local communities and stakeholders, and realizing both the provision of ecosystem services and people's well-being. A multi-scale conceptual framework on nature, the productive base of societies and human well-being shows how institutions and governance reflect natural capital, produced capital, and human capital on human well-being at various scales. It is significantly important to understand clearly that institutions and governance is a key to attain well-being of people as is illustrated in the Figure 2 below.

(Figure 2)

A multi-scale conceptual framework on nature, the productive base of societies and human well-being



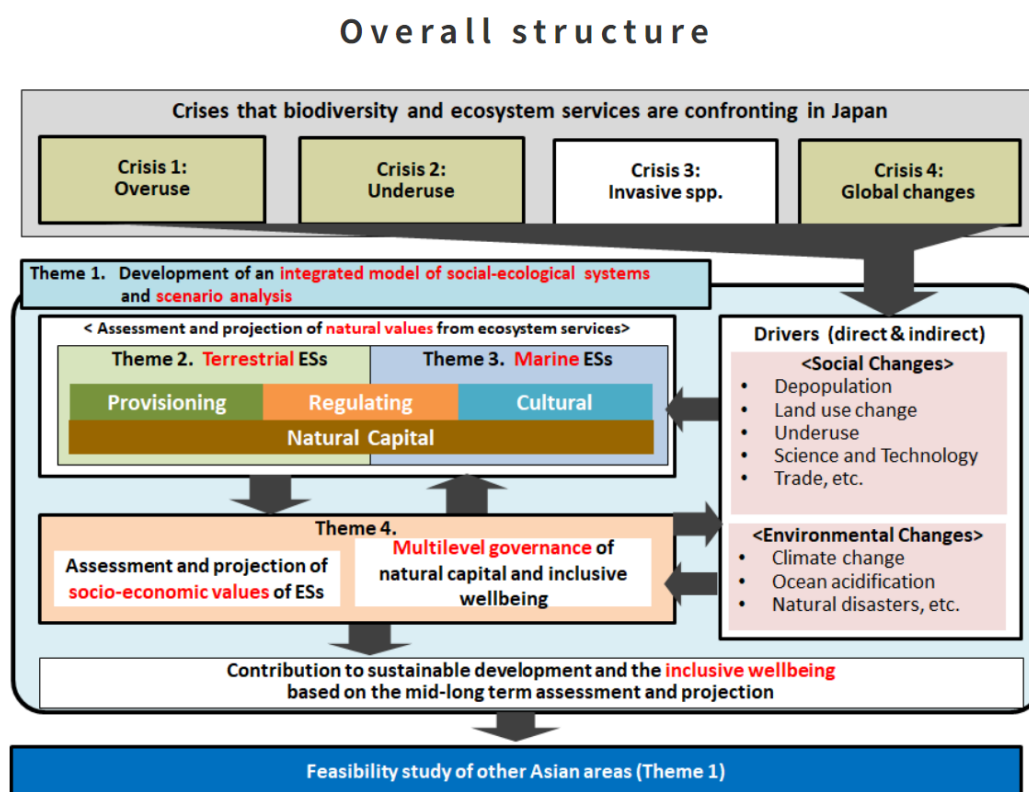
(Reference)

https://www.researchgate.net/publication/259589800_Managing_the_Mismatches_to_Provide_Ecosystem_Services_for_Human_Well-being_A_Conceptual_Framework_for_Understanding_the_New_Commons

³ Referenced from "Managing the mismatches to provide ecosystem services for human well-being"

In the project Predicting and Assessing Natural Capital and Ecosystem Services through an Integrated Social-Ecological Systems Approach (PANCES), well-being is positioned as one of the central concepts of the social-ecological systems approach. PANCES is a framework for assessing the impact of natural capital and ecosystem services on people's lives, and reflects environmental changes such as biodiversity, climate change, natural disasters, as well as social changes such as population decline, land use, science and technology, and trade. They propose a new conceptual framework for the governance of natural capital required to improve inclusive well-being, and they also conduct predictive assessments of the socio-economic value of natural capital and ecosystem services. In order to assess well-being, PANCES advocates a comprehensive evaluation of not only the quantity and quality of ecosystem services provided, but also the benefits and risks that people derive from using them. As Figure 3 illustrates the structure of PANCES, PANCES should be widely understood and disseminated in Asia, deepening pan-Asian communication on how to deal with natural capital, and realizing the international goal of “realizing a world that coexists with nature by 2050.” I strongly believe that PANCES will help people in Asia to have common framework of understanding on how people should cherish biodiversity and ecosystem services in order to attain better well-being.

(Figure 3)

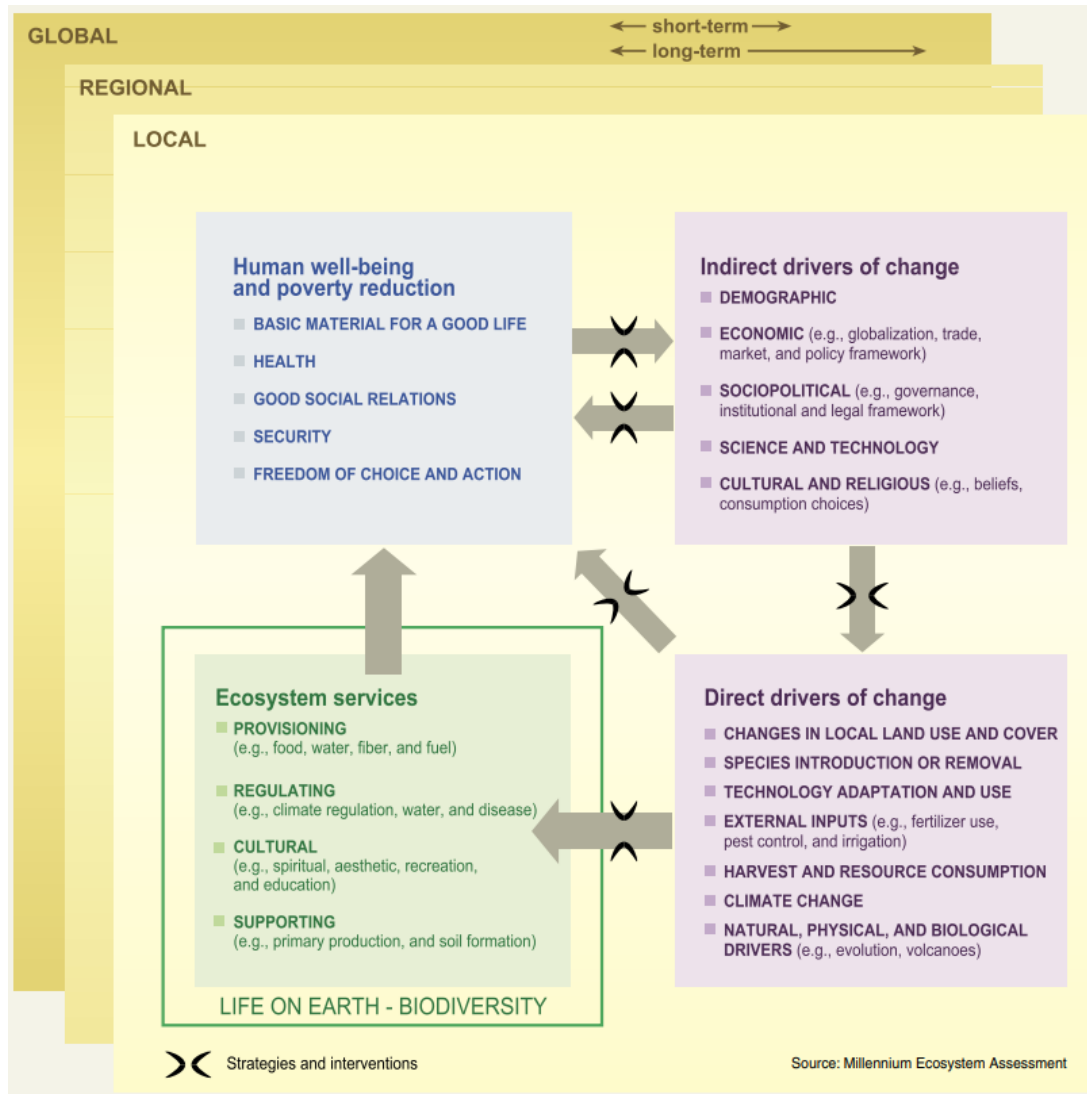


(Reference) <https://www.nies.go.jp/pances/en/project/>

2) The relationship between human well-being and economic development

According to the MA framework, economic factors are included in the framework of Indirect Drivers of Change, while Direct Drivers of Change include climate change and land use change. They have a continuous impact on well-being as is shown in Figure 4.

(Figure 4)



(Reference) <https://www.millenniumassessment.org/documents/document.356.aspx.pdf>

The relationship between well-being and economic development is complex and the subject of much research. It is generally believed that economic development has a positive impact on human well-being. Economic development increases employment, raises the income level of many workers, and generally increases government tax revenue, which can have a positive impact on social welfare. In

addition, considering that it generally has a positive impact on the stock market and increases the wealth of stockholders, it is expected that people's standard of living will improve. In addition, economic development will accelerate the introduction of digital technology and promote DX, increasing the productivity and efficiency of business production, sales, and management, increasing the number of cheaper and better-functioning products, and improving the quality of services. Considering that the possibility of improvement increases, people can enjoy more material and non-material benefits, and their well-being is thought to increase.

On the other hand, with economic development, the possibility of external diseconomies increasing, and in Japan, during the high economic growth period of the 1960s and 1970s, residents complained of damage from Minamata disease, Itai-itai disease, Yokkaichi asthma, etc., which became a major social problem. Pollution such as air pollution and photochemical smog destroys the surrounding environment and has a negative impact on the human body, animals, and plants. As a result, people's well-being declined significantly.

It has also been pointed out that income disparity widens with economic growth, leading to a decline in well-being due to factors such as poverty and a decline in one's social position compared to others. The Cabinet Office of Japanese Government published research results in its annual economic and fiscal report that show there is a positive correlation between economic growth and income inequality, but the question is whether income inequality necessarily reduces well-being? Some believe that further research is needed before reaching a conclusion, as it is also greatly influenced by institutions, culture, economic conditions, and the level of trust in government and local communities. (Ferrer-i- Carbonell and Ramos (2014))

In this way, in pursuing human well-being, it is necessary to consider not only economic development but also environmental conservation and social justice. As a result, the framework of the Sustainable Development Goals (SDGs) has spread throughout society, calling out the need to consider economic, social, and environmental aspects in a balanced manner.

3) How globalization influences (accelerate/decelerate) economic development and human well-being?

Globalization has both accelerated and decelerated aspects of economic development.

Globalization can promote economic development. It is when access to global markets allows a company to offer its services or products to more consumers, increasing demand. Additionally, increased competition in global markets can foster efficiency gains and technological innovation.

For example, as globalization progresses, an industry no longer necessarily needs to be located in one location. Production costs can be lowered by dividing production activities into sub-activities, making parts in locations that are most suitable for each activity, and then collecting them in one location for final assembly. In this way, globalization allows us to maximize production efficiency. Global division of manufacturing and labor is one reason for promoting globalization. As a result, product prices are lower and consumers receive significant benefits. Another advantage of globalization is that the abundant funds of advanced countries can be invested in developing countries, thereby promoting economic growth in those countries. Generally speaking, one of the reasons why developing countries are unable to develop economically is a lack of capital. A large amount of capital from developed countries poured into Southeast Asia, leading to the introduction of the new factories, resulting in economic development known as the “East Asia Miracle” (Economic Growth and Public Policy by A World Bank Research Report, (1993)).

On the other hand, globalization can have a negative impact on economic growth. For example, even if markets are opened to foreign capital, local businesses and industries with low competitiveness may lose out to competition and the unemployment rate may rise. In addition, intensifying price competition in the global market can lead to excessive deterioration in the working conditions of workers in certain industries.

The “Asian Currency Crisis,” which began in July 1997 and was a phenomenon of rapid currency depreciation in Asian countries started from Thailand, also significantly slowed economic growth. Even if the economy grows due to the inflow of foreign capital, if that foreign capital flows out of the country all at once, the exchange rate of the country's own currency will plummet, and at the same time the value of foreign currency-denominated debt will sharply increase, making it impossible to pay or importing. Prices suddenly rise, leading to shortages of goods and import inflation, causing major economic turmoil. At that time, hedge funds and European investors fled Southeast Asia, causing the exchange rate to collapse quickly and developing into the Asian Currency Crisis. At the time, I was working as an economist at a public interest foundation called the Japan Center for International Finance (JCIF). I witnessed the transition from financial instability to economic instability and then to political instability. (After this, Japan experienced a series of financial instability that led to the Bank of Japan's policy interest rate reduction in 1998, a sharp rise in the Japanese yen in October, the bankruptcy and nationalization of Japan Long-Term Credit Bank in the same month, and the nationalization of Nippon Credit Bank Ltd. in December.) Currency depreciation, following the Thai baht, spread to Asian countries such as Indonesia and South Korea. The Asian currency crisis can be said to be brought about by globalization.

Furthermore, 10 years later, the subprime loan problem occurred and the negative aspects of globalization emerged. In the early 2000s, investment boom occurred in the United States due to the easing monetary policy initiated by Federal Reserve Bank, and competition among financial institutions for lending intensified due to the surplus of money, resulting in loans that exceeded repayment capacity. So they created synthetic securities called Collateralized Debt Obligation that combined high-quality mortgages and subprime mortgages, and sold them to institutional investors and hedge funds around the world. Once subprime loans began to default, the prices of the securities they held plummeted, and financial institutions around the world suffered huge losses. As a result of this, in 2008, the major American investment securities company Lehman Brothers went bankrupt (the Lehman Shock), and the world economy fell into a severe recession. At the time, I was working as a foreign-affiliated corporate sales representative of a life insurance company, so I remember watching closely the layoffs and bankruptcy process at Lehman Brothers, and being surprised at the speed with which they decided to move huge amount of fund and capital outside Japan.

In this way, the impact of globalization on economic development can be seen as both merits and demerits, so it is difficult to evaluate it. Before global flows of products and people, products were often produced, sold, and consumed in local locations, but the increased transportation of goods due to globalization has impacted the environment in the following ways:

1. Increase in greenhouse gases

The increase in the transportation of goods due to globalization has led to the expansion of transportation methods such as planes, trucks, and ships, which emit greenhouse gases such as carbon dioxide. The longer a product is transported, the more fuel is consumed and the more greenhouse gases are emitted. The fuel consumption of transportation vehicles can result in the release of air pollutants (nitrogen oxides, sulfur oxides, particulate matter, etc.). It is also known to cause ocean acidification, which has a major impact on biodiversity.

2. Impact of transportation infrastructure

Long-distance transportation requires infrastructure such as roads and railways. The development of these infrastructures damages the terrestrial and marine environments.

3. Biodiversity impact

All shipping containers and ships can bring plants, animals, fungi, and more to new locations. Especially, Dengue transfer must be taken care for prevention of viral infection transmitted by the bite of an infected female *Aedes* mosquito.

As described above, globalization has complex effects on people's well-being, so it is necessary to implement appropriate policies while balancing benefits and risks. This includes regulations of the global companies to protect the environment as well as the rights of workers and social initiatives such as reducing poverty and improving education and health care. Globalization needs to be reflected to the various socio-economic assumptions including Shared Socio-economic Pathways of IPCC and be explained how each scenario from SSP1 to SSP5 assumes the impact of globalization.

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<https://www.nies.go.jp/pances/>

The National Biodiversity Strategies and Action Plans (NBSAPS) in Convention of Biological Diversity homepage <https://www.cbd.int/nbsap/>