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Humanosphere Index: Beyond the Human Development Index

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The “livelihood potentiality” refers to the necessary material and spiritual conditions for individuals or regional societies to maintain themselves. The “sustainable humanosphere paradigm” is a conceptual framework which accepts the “logic” of a world that enables these material and spiritual conditions to exist, and that furthermore attempts to understand “development” as the improvement of the quality of life.

In the world after the Industrial Revolution, the Western countries and Japan, who became the “developed countries,” under a “production-oriented philosophy” have for many years used GNP per capita as a lucid indicator of the wealth of the citizens. From 1990 onwards, as well as a number of indices such as the Human Development Index, that places emphasis on the three elements of education, economy and health, it has been pointed out that there is a need to give consideration to environmental sustainability, and various indicators have been devised. However, there has thus far been no research that attempts to truly indicate the sustainable humanosphere from a viewpoint based on history since the genesis of the Earth. This paper firstly overviews, from an historical perspective, the global perceptual framework of the geosphere, the biosphere and the human society, used to create the index, and demonstrates that it is the “circulation,” “diversity” and “care” that are the logic of the genesis and development of the three spheres. This is followed by the proposal of nine indicators: 1) solar energy, 2) the atmosphere and water circulation, 3) per capita emission of CO₂, 4) forest biomass, 5) a biodiversity indicator, 6) per capita consumption of net primary production, 7) population density, 8) the average number of household size, and 9) unexpected deaths. Humanosphere Index is an aggregated index of each of these nine indicators converted to a normal distribution with 0.5 as the average value. Taking a comprehensive understanding of the Earth from the viewpoint of Humanosphere Index, countries in the tropics are given a higher evaluation than those in the temperate zone. We believe it can be said that when we attempt to conceptualize the sustainable society on a global scale, it is clearly indicated that we should be focusing on the tropics rather than the temperate zone.