

Global Economy and Environmental Problems

Tomoyo TOYOTA *

* *The University of Shimane, Japan; t-toyota@u-shimane.ac.jp*

Looking at environmental problems from the perspective of economics, the cause of environmental problems is the fact that the availability of natural resources is presumed free. Within the mechanism of the market economy, both the supply and consumption sides maximise their profits, providing no incentive to bear an additional cost to protect the natural environment. Therefore, the continuation of the economic mechanism of seeking affluence while prioritizing profit has resulted in serious environmental pollution.

As the pollution of ecosystems and natural resources progresses, so do the socio-economic problems associated with dealing with these precious resources. We are already emitting more pollutants than one Earth can cleanse and absorb, and we are approaching the “limits of the Earth”. For a sustainable and stable socio-economy, we need an economic system that values and trades the Earth’s natural environment.

Building a new, environmentally friendly economic system is increasingly important in today’s society, where the global economy is progressing and the trade of goods and experienced personnel is expanding between developed and developing countries. Although environmental problems are reported to have serious effects in developing countries that are pushing forward economic growth through industrialization, most of the goods and services produced in developing countries are consumed in developed countries that have plenty of money. The responsibility of consumers in developed countries is the key to solving environmental problems.

Consumer responsibility requires a change in the behaviour of each and every consumer toward environmental issues, as the Sustainable Development Goals (SDGs) also set one goal for “sustainable production and consumption.”

To understand and measure the environmental impact of such consumption, several indices, such as life cycle assessment (LCA), ecological footprint, and virtual water, have been studied. LCA is an index that quantitatively evaluates the environmental impact emitted during the processes of production, processing, transportation, consumption, and disposal of products, and can visualise the entire environmental impact generated by consumption behaviour. The ecological footprint is a method of converting the land required to purify and absorb the various environmental burdens generated in a life cycle into an area. Indicators have been developed to visualise the environmental impact of consumption behaviour, and the foundation for choosing environmentally friendly consumption behaviour is being prepared.

In this special issue, three papers related to the economy and environment are introduced. A study by Geoffrey Wood about the “The Shifting Political Economy of Emerging and Mature Markets: Introducing

the Theory of Interconnectedness” introduced the theory of interconnectedness which analyses the mechanisms by which human behaviour, social structure, and the physical environment interact to influence the political economy.

A study by Michihiro Hino about the “Issues and Possibilities of Environmental Goods Negotiations” focused on the challenges and possibilities surrounding the negotiation of environmentally friendly environmental goods (EGs). As environmentally friendly EGs have become subject to trade liberalization, markets are being created that facilitate the international distribution of environmentally friendly products, and expectations are rising for the possibility that the global economy will advance environmental conservation and sustainable development.

Finally, a study by Tomoyo Toyota is about “A Study on Regional Economic Ripple Effect by Analysing Woody Biomass Energy Facilities” which discusses the impact of woody biomass energy use on the local economy. Shifting from fossil fuels to domestically produced renewable energy is expected not only to reduce greenhouse gas emissions but also to have a ripple effect on the local economy. This study examines how to create a new economic system that balances economic development and environmental protection.

The theme of this special issue is the natural environment based on the economic system. It discusses a new economic system that considers the value of the environment and its future possibilities, instead of the old economic system that ignored the value of the natural environment and caused environmental problems, which was a market failure. Within the new economic system, “ethical consumption,” in which each consumer selects socially and environmentally conscious products and services, taking into account the resolution of social and environmental issues, is also attracting attention. Research on new economic systems and new values that aim to balance the economy and the environment is expected to continue in the future.