# Simulation Analysis of Global Orders based on the Concept of Global Public Goods

**Yoshida Kazuo**
(Kyoto University, Graduate School of Economics, Professor)

**【Outline of survey】**

Since the close of the cold war, it has been an important challenge to establish solution measures for problems threatening world orders, such as terrorism, wars, environmental disruptions, trade disputes, and financial crises, through multilateral coordinations. Conventional economics and international politics each has been offering solutions for the problems case by case, based on its own methodology. However, due to complicated interrelations among the problems, simply summing up separate solutions would not be enough for dealing with the whole issue and thus synthesized analysis is required.

The concept of global public goods (GPG) seems to be a foothold for such analysis. It is an extension of the traditional notion of public good so that it becomes applicable to goods whose benefits spill over at the global scale. The GPG concept would make it possible to comprehend the above-mentioned problems in an integrated manner. That is, for each problem, the issue is to establish mechanisms for eliminating shortages of GPG supplies.

Over the past ten years, especially during the last four years in a project of Scientific Research A, existing theories have been reexamined based on the GPG concept and various analyses have been performed using computer simulations as main tools. This research, building on the knowledge accumulated over the past research, plans to construct a new simulator based on the GPG concept (GPGSIM) and aims to inquire into mechanisms necessary for the formation of global-scale orders.

**【Expected results】**

This research plans to organize the above-mentioned problems with the concept of global public goods (GPG), construct models that take into account interrelations among the problems, and perform analyses based on computer simulations. Thereby, synthesized analyses, which are difficult in existing issue-by-issue investigations, would become possible. The simulator based on the GPG concept (GPGSIM), which is to be constructed in this project, would function as a simulation bed for analyzing similar types of interrelated problems in synthesized manners and would stimulate future researches in this field. Further, feedbacks from results of the simulation analyses would help advancing existing theories.

**【References by the principal researcher】**

・Yoshida, Kazuo (1996) *Economic Analysis of Peace and Security*, Nihon Keizai Shinbunsha.
Yoshida, Kazuo (1992) *World Politics and Economy in the Post-Cold War Era*, Yuhikaku.

**【Term of project】** FY 2005 - 2009 | **【Budget allocation】** 89,900,000 yen

**【Homepage address】** none