

## 論文内容の要旨

氏名 LE LIEN THI QUYNH

Global governance can be used to denote “collective efforts to identify, understand, or address worldwide problems that go beyond the capacity of individual governments to solve” (Weiss and Thakur, 2010). The rising interdependencies among members in the world that confronts a daunting array of trans-boundary threats have made the demand for global governance in world affairs has never been greater. However, scholars have pointed that while the cross-border challenges are likely to continue in coming decades, the current global governance architectures still short on capacity to cope with them. Partly, this is because the increasing interdependence among states has not been accompanied by sufficient adjustments in the global governance regime (United Nations, 2013). Demand for effective global governance continues to outstrip supply, and the gap in the global governance regime is growing (Patrick, 2014). To overcome these shortcomings, it is critical for policy planners to understand the structure and effectiveness of the current global S&T governance regimes. Although such overall analysis of global S&T governance should be particularly essential, this is still rarely examined. The absence of such empirical analysis suggests the necessary to carry out this study.

This study is an attempt to construct an analytical framework for understanding the structure and the effectiveness of the current global S&T governance regimes, especially the attitudes and behavior of state-actors toward the multilateral agreements. For this purpose, about 130 multilateral agreements deposited in United Nations, the only truly universal and inclusive multilateral institution, were collected. Our database of international regimes is a resource for information on the agreements’ ratification status of 193 member states, covering a range of major matters, from peace and security, environment, to the issues of technical competitiveness, safety and health.

For maximizing the usefulness of the database, multiple frameworks of analysis are adopted. Firstly, we investigated the evolution of the norms and rules of regime over time by measuring the level of support of international community towards different key topics of global science and technology governance. Since international regimes reflect patterns of cooperation and discord among nations, throughout this analysis, we can provide the overall picture of the continuity and development of the global governance throughout time.

Secondly, the social network analysis approach is applied to provide the overall structure description of global joint-partnership among states and among the treaties. Although the social network perspective seems to be unable to produce significantly

meaningful results, the changes in the system of regimes throughout different periods of time can be somehow visually captured.

Next, a set of quantitative indicators was proposed and calculated for each of 193 countries in the world, to show her policy attitude towards the issues of global S&T governance. For the state, the decision to ratify any treaties represents the interest in a certain S&T policy area, and then reflects the willingness on the part of the ratifying country to comply with international law and thus to cooperate with other partners in governing the world. Rather than only considering whether a state had ratified an international agreement or not, this study focuses on the underlying behavior of this action by taking account of the timeliness of the ratification act. Based on that, the variation in the behavior of states and groups of states towards different key topics of global S&T governance can be captured. Moreover, we go much deeper to analyze each of the state-actor's behavior to measure her willingness or reluctance in taking part in the global S&T governance system of regimes.

Further, we have applied our framework of analysis to verify one of the most pressing prepositions in political science field. This is the preposition about the existence of international cooperation in the current world in the absence of hegemonic leadership, which is called in short, Cooperation-without-Hegemony. Many striking discussions about the transformation towards a new world order where no power or group of powers can sustainably set an international agenda (Bremmer, 2012). It is described as the existing situation of the world where every country is exceptional in its own way and no country can exercise global leadership. This leads to a state of world affairs where tools for global policymaking, principally state-to-state negotiations over treaties and international institutions, have either failed to make breakthroughs or have had only limited success (Hale, Held and Young, 2013). However, there is currently no systematic framework to verify the transformation towards cooperation without hegemony paradigm on an empirical basis. By applying our proposed quantitative framework, the study can provide a systematical observation of global leadership changes over time. The results then are used to highlight what is stated about the new world era—an era of cooperation without hegemony.

Overall, the results of the study can be used as the useful information for policy planners to draw the lesson about how to achieve global governance progress and how to strengthen the global partnership for the sustainable development at national and global levels.