Policy Agenda Setting Process and Cognitive Map Analysis
: a case of the Green Growth in Korea

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Abstract

Recently there has been a dramatic increase in worldwide attention to environmental issues based on climate change and global warming. This effort has resulted in advances toward a new paradigm, 'sustainable development'. Especially, 'Green Growth' has risen as a new alternative to earlier problems. Korea has focused on the Green Growth, and several plans have been presented by the current administrations. The main purpose of this study is to find what steps are included in the agenda setting process of the Green Growth in Korea, using both time series analysis and system thinking approach. To conduct a time series analysis, the paper examines articles of newspaper and government reports. And, to build a causal map, the speech of current president of Korea is analyzed. The study concludes that the political consideration has played a major role in the policy agenda-setting process of Green Growth in Korea. In addition, it is identified that causal map analysis, as a qualitative approach, can complement the existing method for analyzing the policy agenda setting process.

Key Words: Policy, Agenda, System Thinking, Cognitive Map, Green Growth

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1. Introduction

Recently there has been a dramatic increase in worldwide attention to environmental issues based on climate change and global warming. This effort has resulted in advances toward a new paradigm, 'sustainable development'. Sustainable development was popularized in the report "*Our Common Future*" prepared by the World Commission on Environment and Development in 1987. Especially, 'Green Growth' and 'Green New Deal" have risen as a new alternative to earlier environmental and economic problems. Korea has focused on the Green Growth, and several plans have been presented by the current administrations. In August 2008, Myung-bak Lee, current President of Korea, declared that the Green Growth as a policy vision of Korea.

Policy vision plays an important role to unite various policies which seek different values. Particularly, in the Green Growth, "Green" symbolizes the value of a protection of environment. On the other hand, "Growth" involves the value of an economic development. It means that they are poles apart in value. In other words, the Green Growth, as a policy vision, includes directly-opposed values; it can be called conflict-relation vision or dilemma of vision (Kim, 2009). In this respect, this paper examines how the Green Growth has become prominent on the policy agenda in Korea, using a time series approach and a causal map analysis. To seek an answer for the research question, various data have analyzed; it includes not only articles of the Korean newspaper but also government reports from January 2005 to March 2009. And the paper attempts to analyze speeches from August 2008 to August 2009 by President Lee of Korea. A causal map and a cognitive map are constructed from the result of analysis respectively.
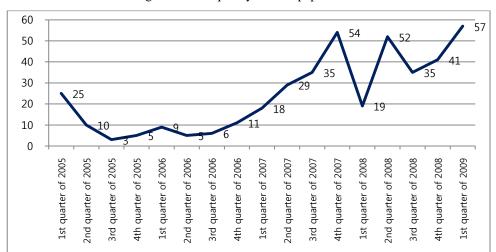
2. Policy agenda setting process

Public Policy making can be considered to be a set of processes, including (1) the setting of the agenda, (2) the specification of alternatives from which a choice is to be made, (3) an authoritative choice among those specified alternatives, as in a legislative vote or a presidential decision, and (4) the implementation of the decision (Kingdon, 2003). This study concentrates on the first process: the setting of the agenda.
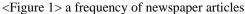
Kingdon (2003) has defined the *agenda* is the list of subjects or problems to which governmental officials, and people outside of government closely associated with those officials, are paying some serious attention at any given time. *The agenda setting* is the process or behavior to adopt social issue or problem as a policy problem; in the process, social issue or problem is chosen as a governmental issue. Then, what has caused this shift in public attention? And how is the issue concentrated by government and chosen as the agenda? Downs(1972) has suggested *the issue-attention cycle* as the answer of these questions. According to his theory, the cycle has five stages: (1) the pre-problem stage, (2) Alarmed discovery and euphoric enthusiasm, (3) Realizing the cost of significant progress, (4) gradual decline of intense public interest, and (5) the post-problem stage. If so, which

stage the green growth, as the agenda of Korean government, is likely to be involved? Curiously, despite the rise of attentions to the green growth, there has been minimal research regarding the agenda-setting process of the green growth, especially in system thinking approach. In the following this paper will carry out a contents analysis of green growth in Korea, as a quantitative approach. Next, a cognitive map will be constructed, as a qualitative approach.

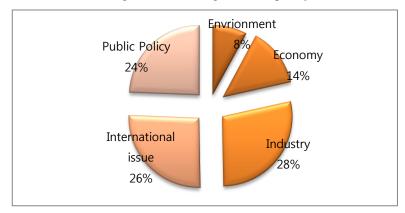## 3. Time series analysis of green growth in Korea

This study conducts a contents analysis to trace the progress of an issue regarding the green growth. Babbie(2001) defines a contents analysis as "the study of recorded human communications, such as books, websites, paintings and laws." Particularly, this method can measure a degree of public attention to the social issue (Erbring, et al., 1980; MacKuen and Coombs, 1981; Hilgartner and Bosk, 1988). Figure 1 shows that how many articles in regard to the issue of green growth are appeared in newspapers in Korea. Articles are from four major newspapers in Korea: Cho-sun, Dong-a, Kyung-Hyang, and Hankyoreh. 414 articles are included in the result.

<Figure 1> a frequency of newspaper articles

* Note: From January 2005 to March 2009

In addition, all selected articles are categorized by a subject of article. For example, when an article describes the economic effect of the green growth, the article is classified as an environmental issue. On the other hand, when a article mentions the governmental policy dealing with the green growth, the article is classified as a public policy group. All articles are divided into five categories; (1) Industry, (2) International issue, (3) Public Policy, (4) Economic issue, and (5) Environmental issue. The result of grouping is shown in the below.
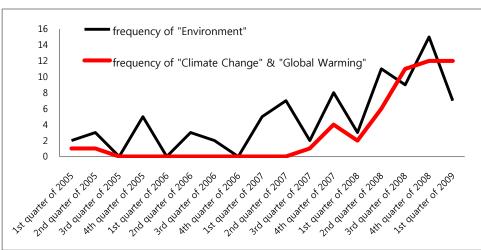
As shown in the Figure 1, a frequency of newspaper articles has increased as time passes. Particularly, there was a rapid increase since the first quarter in 2008. In the same time period, a new administration was inaugurated, and the President Lee declared "Low Carbon and Green Growth" as a new growth engine and a Korea's vision of the future national development.

Basically, the political factor plays an important role in the policy agenda-setting process, such as a change of administration, a shift in the partisan or ideological distribution of seats in Congress, or a shift in national mood. Especially, a change of administration is the most important factor in the agenda-setting process (Kingdon, 2003); a change of administration is sometimes called a triggering device, because when the new government seizes power, a person and the party in power try to solve problems. In this process, new issues can be focused as a new controversy.

This theory can be applied to the case of Korea's green growth. The following Figure 3 shows that a frequency of the former President Noh and the current president Lee's speeches regarding to the green growth. The 367 speeches of former President Roh are analyzed and 213 speeches of the current President Lee are analyzed; overall 580 Presidents' speeches are included in the result. Those are divided into two groups; Speeches regarding to (1) an environmental issue and (2) Climate Change and Global Warming.
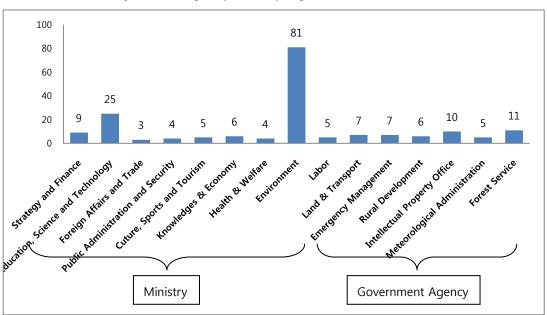
< Figure 3> a frequency of the President's speeches

* Note 1: From 2005 to 2007: the former President Roh Moo-hyun's speeches
* Note 2: From 2008 to 2009: the current President Lee Myung-bak's speeches.

The Figure 3 shows that both presidents gradually have paid attention to the environment issue. However, there is an outstanding difference between Roh and Lee. Roh rarely mentioned Climate Change or Global Warming in his public speeches, while Lee has spoken about those issues at most of his speeches. Particularly, as mentioned above, President Lee declares "Low Carbon and Green Growth" as a Korea's vision of the future national development on August 2008. A few months after his address, Presidential Committee of Green Growth was established under the direct control of the President to implement the national project of 'Low-Carbon, and Green Growth'.
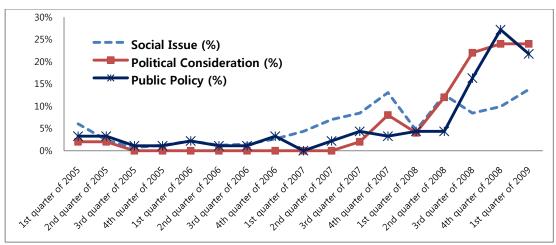
It is related to the social atmosphere which is focused on the same issue. In addition, President's attention to the issue also leads public policies to solve the problem.

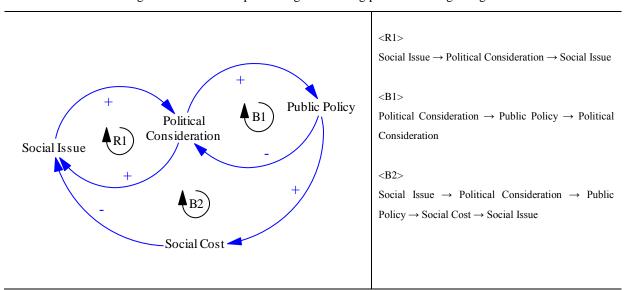< Figure 4> a frequency of Policy Reports for the Green Growth

As described in the Figure 4, Most of polices regarding to the Green Growth have been planned in the Ministry of Environment. However, it is also important to consider polices from other ministry or agency, because, the Green Growth is not restricted within an environmental field. For instance, the Ministry of Science and Technology has reported several policies pushing ahead on developing renewable energies or nuclear power. Furthermore, each local government has made their own plans to achieve the Green Growth. In the following Figure 5, three kinks of data are illustrated together: (1) a frequency of articles, (2) a frequency of President's speeches, and (3) Policy Reports of whole government ministry and agency.
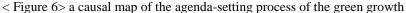
< Figure 5> a frequency of Social Issue, Political Consideration, and Public Policy

* Note: Graph is illustrated by a relative frequency to compare three kinds of data.

A significant implication is portrayed in Figure 5. It is about an order of them. Firstly, the graph of a social issue about the Green Growth increased from 2007. Next, the line of political consideration has risen rapidly since 2008, with a change of government. Finally, various policies have planned to implement the Green Growth.

< Figure 6> a causal map of the agenda-setting process of the green growth

	<R1> Social Issue → Political Consideration → Social Issue <B1> Political Consideration → Public Policy → Political Consideration <B2> Social Issue → Political Consideration → Public Policy → Social Cost → Social Issue

* Note: R: Reinforcing Loop, B: Balancing Loop

The causal map is constructed with three parts: one reinforcing loop and two balancing loop. In a general perspective, the policy agenda-setting process of the Green Growth in Korea had been dominated by balancing loops: B1 and B2. Especially, in B1 loop, it is found that when a policy is implemented, a political consideration is diminished to some extent. Figure 5 which is described above demonstrates it. Secondly, the issue regarding to the Green Growth is possible to be disregard, because of a social cost burden on policymakers (Balancing Loop 2). Finally, Reinforcing Loop 1 (R1) had played an important role in the policy agenda-setting process of the Green Growth in Korea. Downs (1972) argued that when a social interest is reached at the zenith, the Government try to solve the social problem. In addition, according to the Kingdon(2003)'s theory of political streams, a change of administration is a critical factor in a policy agenda-setting process.
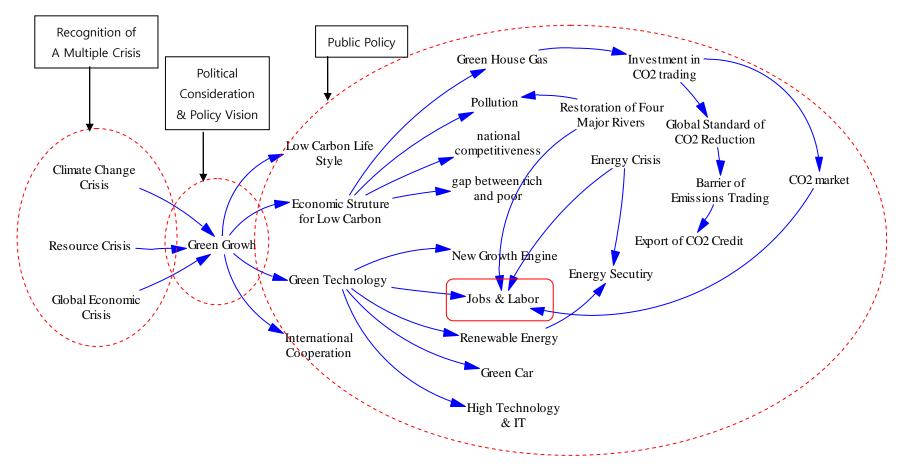
In the following, this paper concentrates on the political consideration, constructing a cognitive map of the President Lee.

4. Cognitive Map of the Green Growth in Korea

In recent years, several studies have attempted to analyze a policy agenda-setting process, using a cognitive map. Axerlord's "Structure of Decision (1976)" may be the first representative study of a cognitive map. In the study,

a cognitive map of foreign policy experts was constructed to analyze the U.S. foreign policy regarding to the East Asia countries. Since the study, a cognitive map has applied to analyze a cognizance of decision makers.

This study has analyzed the Korean President Lee's speeches to construct a cognitive map regarding to the Green Growth in Korea. Thirty texts of the speeches are included in the result, and twenty-five variables are extracted. Figure 7 is shown in the following.
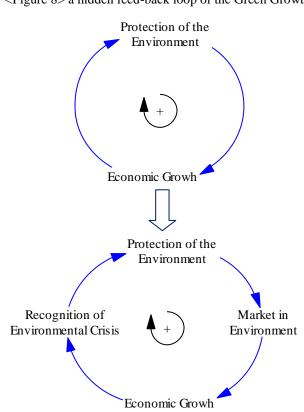
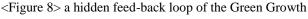<Figure 7> Cognitive map of the President Lee

* Note 1: From 15, August 2008 to 15, August 2009.

* Note 2: Twenty-five variables are included in the figure.

As described in figure 7, President Lee perceived a multiple crisis: Climate Change, Resource, and Global Economic Crisis. They are a starting point of the cognitive map. To response to the crisis, Lee declared the Green Growth as a policy vision, and the Green Growth has driven several significant policies in Korea. In the whole policies, "creating job" is the most important variable among total variables, and it is also a core goal of the policy; most arrows point toward the variable and it means that "job creation" is a dependent variable or goal variable (Kim, 2000).

There is another important interpretation of the cognitive map; the map does not have feed-back loop. However, it is not mean President Lee does not recognize a feed-back loop in his consideration. Even though there is no feed-back loop in figure 7, an obvious positive feed-back loop is revealed in his speeches. The loop is shown in figure 8.

<Figure 8> a hidden feed-back loop of the Green Growth

In System Thinking approach, a feed-back loop is an important factor to analyze an object of study. Basically, it includes two different loops: (1) positive feed-back loop, and (2) negative feed-back loop. In general, a negative loop makes stable system, while a positive loop makes changeable system. President Lee has dealt with the Green Growth by creating a positive loop and he also expects that the loop is a virtuous circle mechanism.

5. Conclusion

Since The Club of Roma published "The Limits to Growth (1972)", 'protecting environment' and 'economic growth' are perceived as incompatible values; it is a deeply held view that protecting the environment constitutes a net expense to the economy. In this regard, to pursue the Green Growth is a paradigm shift. Even though the virtuous circle between the protecting environment and the economic growth still has many assignments to be solved, it is important because it implies a possibility. The possibility is a key point of the Green Growth in Korea as a policy vision of the Government.

This study attempts to analyze the policy agenda-setting process of the Green Growth in Korea. As mentioned above, a political consideration of the new Government played a major role in the process that the Green Growth has become prominent on the policy agenda in Korea. And, the Green Growth, as a policy vision of the Korean Government, is seeking a virtuous circle in the positive feed-back loop to overcome the multiple crisis.

【**Reference**】

Axelrod, Robert, 1976, *Structure of Decision: The Cognitive Maps of Political Elites*. Prince-ton. N. J: Princeton University Press.

Cobb & Elder, 1983, Participation in American Politics: The Dynamics of Agenda-Building. Baltimore: 「The Johns Hopkins University Press」.

Donella Meadows, Dennis Meadows, J. Randers, 1992, *Beyond The Limits*. Chelsea Green Publishing Company.

Dong-Hwan Kim et al., 2009, Cognitive Map Analysis of President Lee on the Policy of Green Growth. *Korean System Dynamics Review*. Vol. 10-4: 39-51.

Downs, Anthony, 1972, Up and Down with Ecology: The Issue-Attention Cycle. 「The Public Interest」. Vol. 28: 38-50.

Eden, Colin, 1988, Cognitive Mapping: A Review. *European Journal of Operational Research, 36*(1): 1－13.

Eden, Colin. & Ackermann, Fran, 1992, The Analysis of Cause Maps. *Journal of Management Studies, 29*(3): 309－324.

Eun-Kyu Lee, 2009, Dynamic Analysis of the Policy Agenda Setting Process of the CO2 Emissions Trading. *Korean System Dynamics Review*. Vol. 10-2: 53-79.

Jenkins Mark, 1998, *The Theory and Practice of Comparing Causal Maps*. Managerial and Organizational Cognition.

Kingdon, John W, 2003, Agenda, Alternatives, and Public Policies. 「Addison-Wesley Educational Publishers Inc」.